

**THE SEDENTARIZATION OF A BEDOUIN
COMMUNITY IN SAUDI ARABIA**

by

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ABSTRACT

This thesis examines the sedentarization of bedouin nomads in Saudi Arabia: partly in general, but mostly focussing on a particular region (Sajir) which was studied in the field.

Our approach emphasizes that such bedouin communities were never self-contained, but rather an integral part of their regional and (latterly) national setting. Their integration has been crucially affected by broader processes: early political changes, development of the oil-based national economy, and recent rural policies (not all targeted specifically at bedouin). Moreover, we show how the bedouins themselves, far from being passively shaped by these pressures, have actively taken advantage of their opportunities and thus internalized these broader developments.

Particular attention is paid to the settled agricultural alternative, with its associated land reforms and development programmes. More broadly, the heritage and shifting meanings of "bedouinism" are scrutinized in this context of rapid change.

To these ends, the early chapters aim to: 1) Develop theoretical framework on nomads and sedentarization from the relevant literature (mostly anthropological); 2) Review and evaluate previous studies of the sedentarization of Saudi nomads in particular; and 3) Give a comprehensive overview of the Saudi agricultural sector as a whole, thereby assessing its land reforms and development programmes.

The latter four chapters report observations gathered from fieldwork in Sajir. These examine this community's sedentarization patterns, their

present mix of agricultural and pastoral activities, and some of the specific socio-economic factors operative in the region.

The main conclusions of the thesis emphasize:

- 1) The strength of bedouin integration (politically, socially, and economically) into the national context;
- 2) The unbalanced and differentiated nature and consequences for the bedouin of national land and agricultural policies;
- 3) The definitive impact of recent transformations of the rural economy on traditional bedouin occupations and livelihood; and
- 4) The continuing active (if changing) role of a specifically bedouin identity and ideology within the community.

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List of Abbreviations

CPIS:	Central Pivot Irrigation System
GSFMO:	The Grain, Silo and Feed Mill Organisation
HA:	Hectare/s
MAW:	Ministry of Agriculture and Water
PETROMIN:	General Organisation for Petroleum and Minerals
PLDO:	Public Land Distribution Ordinance (of 1968)
SAAB:	Saudi Arabian Agricultural Bank
SABIC:	Saudi Arabian Basic Industries Corporation
SR:	Saudi Riyals (\$ = 3.75 SR)

Glossary

Aamarah:	Literally the upper part of the human torso (chest and neck), a sub-tribe or a maximal lineage in the Arab tribal organisation.
Al-badawah:	Pastoral Nomadism, the economic activity of the bedouin nomad.
Al-Bait:	An individual household, or family.
Al-Batin:	Literally abdomen, a clan or major lineage of the tribal organisation.
Al-dalal:	Literally auctioneer, the traditional marketing agent for a variety of goods.
Baal:	Dry peasant farming in Najd.
Dirah:	A traditional tribal territory
Fakhath:	Literally thigh, a minor lineage of the Arab tribal organisation.
Falah:	Farmer, connoting peasant agriculture.
Al-hadharah:	Sedentarism, civilisation or sedentary production (adjective Hadhar).
Hadith:	Prophet Mohammed's sayings (Peace be upon him).
Hadj:	The pilgrimage to Meccah.
Hamulah:	A group of related kin, sometimes represented by the term minimal lineage.
Hema:	Protected tribal grazing territories.
Hijrah:	Bedouin settlement (plural Hujar)
Iggt:	A traditional snack, made with thickened milk and served with tea.
Ikhwan:	Moslem brothers, the bedouins who espoused the Wahabi ideology, settled in agricultural communities, and fought for the cause (1912-1930).
Imam:	The leader of the Moslem community, or the leader of the prayers in the Mosque.
Iqta:	Land grant and donation.
Jihad:	Literally holy war, the struggle waged by those who espoused the Wahabi religious movement and fought for its spread.

Khalifa:	Commonly called Caliph in English. The leader of the Moslem community after the death of the Prophet. (Plural Khulafa).
Mawat:	Literally dead land. Uncultivated and unutilised land.
Mujahidin:	Holy warriors. The people who engage in Jihad or holy wars.
Mulk:	Privately owned land.
Mushaa:	Unutilised and unowned land, open for utilization.
Muzaraa:	Farmer, connoting modern agriculture.
Qabilah:	The mother tribe, or the macro level of the Arab tribal organisation.
Al-rashash:	Literally sprinkler, the local name for a central pivot irrigation system.
Shariah:	The Islamic Law.
Sunna:	The deeds and actions of the prophet.
Ulama:	The religious leaders and scholars.
Wanit:	Small pick-up truck.
Waqf:	Religious endowments.

Introduction (1)

1. Themes in the Study of the Saudi Nomad

The Arab bedouin, and the nomads of the Peninsula have been an object of fascination and study for travellers, historians and anthropologists since early times. The extremely inhospitable nature of the deserts in the interiors of the Peninsula; the perceived symbiosis between the nomads, their environment and their animals; as well as the images of autonomy and freedom that this life is supposed to bring to these tribally organized people, all have contributed to this fascination and to the reproduction of perceptions and images that continue to affect the study of nomadism until present times.

The Saudi bedouin and nomadic sector have also been an object of attention in contemporary times because of four factors:

A The Saudi pastoral sector constituted one of the largest nomadic communities of the contemporary world, and it was often perceived as constituting a relatively permanent feature of the region, until very recent times. The Saudi nomadic bedouins, therefore, represent in the minds of many writers the closest approximation of the Arab tribally organised nomadic people.

B The Saudi bedouins have had a very significant and formative role in the creation of the Saudi central state. This role has been vital to the spread of Al-Saud's authority and control over the areas outside the central region of Najd.

Despite the fact that this role has been mostly confined to military conquests and had only lasted from 1912 to 1930 (when the Ikhwan bedouin army was defeated and dispersed), it remains symbolic of a fascinating period in the short history of Saudi Arabia, in which the basic fundamentals of the modern state were constructed and formulated. Such fundamentals include the ideological basis of the state (the Wahabi Unitarian movement), and the relationship of the modern state to the traditional elements of the society it had unified in the early decades of the twentieth century.

C The Saudi bedouin sector, furthermore, has a significance that is derived from the fact that there is an observable relationship between the state's ideals, ethos and practices and those originating in the traditional tribal structures of the Peninsula. The Saudi bedouin sector, moreover, represents to many observers the closest link to these ideals, ethos and practices. Some of these tribal manifestations, moreover, remain operative in the Saudi modern society, even at present.

D The sedentarization process of the Saudi nomad, especially in the early period, represents a unique case of nomad settlement in contemporary times. That period, which resulted in the creation of the Ikhwan army, saw an overwhelming push for settlement on the part of the bedouins unequalled before or since in Saudi history. Settlement in this early period was due to a policy of ideological intervention, based on converting the bedouins to the Islamic principles of the Wahabi revivalist movement and persuading

them to settle in agricultural communities. The success of this policy is seen as representing the single most important factor facilitating the state's triumph over the traditional political divisions and strifes in the Peninsula. Even after the dissolution of the Ikhwan bedouin force, and the official proclamation of Saudi Kingdom (1932), the incorporation of the bedouin (at least politically) remained an important element on the national agenda for stability and integration. This was manifested in a persistent, but mostly low profile, policy for encouraging the bedouins to settle in agricultural communities. Two of the best known governmental schemes to settle the nomads are the Wadi Sirhan (in the 1950s), and the Haradh (in the 1960s) agricultural projects. The two schemes, however, were largely unsuccessful in achieving their goals.

The above four areas of significance surrounding the Saudi nomadic and bedouin sector have been largely the areas of interest and focus that writers have accorded to the nomadic and bedouin sector of Saudi Arabia. So the bedouins have been studied as cases of pastoral nomadic groups by anthropologists; as part of a political process in the creation of a national state and identity by historians and political scientists; and as a vital ingredient in the development process of the country by various other social scientists.

One of the most important features of the study of the Saudi bedouins has been to sometimes perceive them as a separate sector, with next to no ties to the city or the sedentaries. This image is unwarranted by

both general anthropological accounts of nomadic people as well as in the factual consideration of the region's historical and current social formation. It is also misleading in the analysis of the political and social development occurring in the Kingdom, as well as to the understanding of the relationships forged between the leaderships of the traditional elements, i.e. religious and tribal (nomadic and sedentary), and the emerging state. These relationships have been most influential in the development of the nation as a whole, as well as within the rural sector. The tendency to see the bedouins as a separate and uniform sector that stands distinct from sedentary farmers and urbanites politically, economically and socially is an unfair and sometimes misleading assumption that bears little relationship to the developments affecting the bedouins in the urban and rural settings.

Another feature of the analysis of the Saudi bedouin, which is an extension of the previous one, has been to concentrate primarily on the sector as an object and a target for deliberate policies, that have special goals. This analytical viewpoint is justified in so far as long episodes of Saudi history have indeed seen the nomadic sector as a prime target for political and social change (i.e. the Ikhwan settlement scheme as a military force for political expansion, and modern agricultural schemes for the economic incorporation of the nomads). These policies, furthermore, have had profound effects on the development of the nomadic sector in so far as agricultural production and settlement were encouraged among the bedouins, and pastoral production discouraged and underdeveloped.

Nonetheless, the time has come for the study of the Saudi bedouin to

take a different form. One that springs from a precise knowledge of the sector's place in the historical formation of the Peninsula, its role in the formation of the contemporary state, the political and economic landmarks in the national developments affecting it, and most importantly how these developments have affected the internal composition of the sector, not only in terms of direct policies affecting the nomads only, but also in terms of national policies for rural development formulated at different stages in Saudi history and implemented in the 1970s and 1980s. In other words, we need to look at the nomadic sector as an integral part of the national setting, and more particularly of the rural and agricultural sectors.

In adopting this approach to the study of Saudi bedouin we hope to avoid the simple generalisations of cause and effect, the temptation to view the nomadic sector as a uniform economic and social entity that is totally distinct from that of the sedentary agriculturalists and urbanists, and the consequent oversimplifications of the transformation process affecting the bedouin population and productive forces.

2. Focus and Aims

This thesis focuses on the studied bedouin community and the sedentarization process as an integral part of the regional setting, and the rural sector and its development. Three factors underlie the justification for this focus.

A -

A significant portion of the anthropological accounts of nomadism and nomadic populations advocate an approach to the study of the nomads from within their status in, and relationships to, the outside world. In other words, the socio-political developments in a nomadic society are very largely determined by its relationships to the national (regional) political and economic setting, and the individual particularities of the latter. In adopting this approach, this study distances itself from the alternative perception that the integration and the development of nomadic societies in a wider context is mostly a function of their internal political, economic and social peculiarities. This latter approach, which emphasises the difference between the nomad and the sedentary, is wholly unjustified for contemporary nomadic societies, and more particularly for the Saudi nomadic sector.

B -

While there is a need to study the specific processes of sedentarization and change affecting the Saudi nomadic sector, as a result of particular policies adopted in the past regarding their socio-economic organisation (either through a national settlement scheme or local agricultural projects), a more significant area for study presents itself in the present decade. One that is a natural progression of the previously studied facets of social change affecting the bedouins - namely the nature of the bedouins' involvement in agricultural production, and how settlement and alternative economic opportunities and activities have affected their traditional pastoral production.

The study of the agricultural sector, moreover, can promote a fuller

and clearer understanding of the sedentarization policies on the one hand, and the modes of bedouin integration on the other. Significant additional aspects of the process of change experienced by the bedouin communities become crystalised with this focus. These include the following:

1 The Land Reforms and Policies: These reforms have been one of the first aspects of the economic policies affecting the nation at large and the nomadic sector in particular. The reforms began with the 1925 law abolishing the tribal dirahs (collectively owned tribal land), and culminated in the 1968 Public Land Distribution Ordinance. The land reforms and distribution policies are vital to the understanding of the sedentarization process, as well as to the eventual developments in the agricultural sector in the 1970s and the 1980s. Moreover, they played a major part in the reconstruction of the rural social structure, not only in terms of land ownership and agricultural production, but also by creating regional differentiation within the sector and encouraging investment from outside it.

Another, equally important, aspect of the land distribution policies has been in land donations and grants outside the confines of the bureaucratic procedures of the 1968 ordinance. Such land donations have been practised since the early stages of Saudi history; and are through direct royal land grants to particular tribal groups or individuals. Land distributions of this kind originate from the traditional and Islamic rights of the ruler or Imam, and are usually politically motivated.

Both of the two types of land distribution practices - originating from bureaucratic official procedures and traditional land grants - are highly significant to bedouin communities. In the first case because it allows the bedouins to acquire private land, when they have lost their collective traditional rights to their dirah, and in the second case because a significant number of important tribal groups have been fortunate to receive royal land grants through Iqta (traditional land donation) to their areas of settlement, or to unutilized land.

The existence of these two processes of land distribution within the rural sector has had wide ranging consequences for the present patterns of land ownership, because they have differing rationality, differential land distribution practices (in terms of size) and differing potential for agricultural productivity. This is more particularly clear among the bedouins, because in most cases the community is new to landownership and to agricultural production.

2 The Policies for Agricultural Development: The end of the 1960s marked the culmination of the land reform in its established bureaucratic form (the Public Land Distribution Ordinance of 1968). The next decade marked the start of a developmental programme for the agricultural sector. This process started with the first subsidization programme for agricultural machinery in 1973. Subsidisation continued vigorously to the end of the decade, and included many of the necessary aspects of modern farming like machinery, poultry and dairy equipment, fertilizers, tree planting, and water systems. The high point of the subsidisation programmes has been in the wheat output price support of 1979, which guaranteed the wheat producers a price of more than five times that paid for imported wheat. This high level of wheat subsidisation continued well into the early years of the 1980s (in 1984

the price support was reduced); and it was extremely significant to the developments affecting agricultural investment and production.

The agricultural development programme of the 1970s has been motivated by a need to bring the hitherto isolated and traditional sector into more modern patterns of production, and towards better productivity. Furthermore, it was designed to stimulate growth and halt the increasingly diminishing role of agriculture in the national economy. Some of the other aims of the agricultural developmental plan were to stimulate the investment of the private sector (*urban and rural*) into agricultural production, to raise the standard of living among the rural population, and to diversify the economy away from its oil revenue base.

The combination of land policies with the agricultural ones have been vital to the sedentarization process in the 1970s and the 1980s, in terms of i) encouraging settlement, ii) encouraging agricultural investment and iii) defining what constitutes sedentary agricultural production. It has also been generally instrumental in constructing the national patterns of landownership, types of agricultural investment, and patterns of production.

It seems, therefore, imperative that we gain a good understanding of the agricultural sector in all its dimensions (physical characteristics, resources, productivity and population), as well as of the relevant policies affecting it before we venture to study settlement among bedouin communities.

C -

Another justification for focusing on the sedentarization process as an

integral part of the regional setting and of rural development arises from the suitability of this focus for a thorough empirical approach, and the necessity of the latter approach to the study of Saudi society and population at the present stage of the country's development.

Most of the previous theoretically based studies of the Saudi nomad have seen the dynamic for the process of change and sedentarization as arising from outside the sector, and more particularly in the political changes occurring in the kingdom; i.e. the centralization of power, the changes affecting the ideological basis of political integration, and the effects of specific policies on the social organisation of the bedouin.

This particular approach is relevant and justified in so far as it is a first step in understanding nomadic social change. It can, however, lead to narrow and often unsubstantiated views. To demonstrate this point further we might take the issues concerning sedentarization and 'detrribalisation' as a case in point. Some writers perceive guided nomad sedentarization as a policy of detrribalisation (A. Asad, Al-Fiar), others see the early hijar scheme and the defeat of the Ikhwan as a landmark and an impetus for a detrribalisation process (A.Said). In both of these views, it is assumed that a) tribalism is confined to the nomadic bedouin sector, b) tribalism of any shape cannot exist under strong central government, and c) the Saudi state has not maintained any aspect of the tribal structure, but sought to eradicate it completely.

The above three assumptions are at best unsubstantiated in the Saudi case. In fact other writers take somewhat of an opposing view, even at the political level. For example Niblock sees the Saudi political

system as operating through an alliance between the 'modern' forces and the 'traditional' ones, with both seeking common goals. The way in which the traditional forces maintained their effectiveness within the modern society was through obtaining political and subsequently economic strength throughout the process of development. Niblock, furthermore, specified the religious leadership and the tribal leadership as two of the partners in this alliance.

Another approach, not very different from Niblock's is presented by M. Abir. He sees the Saudi regime as an oligarchy, whose cornerstone is the principle of consultation and concensus. The senior partner of this tripod political structure is the Royal family, while the leading religious leaders on the one hand, and the tribal sheiks and the members of the regional leadership on the other, constitute the second and third legs of the political system. Abir, however, states that the influence of the two last groups (i.e. religious leaders and tribal and regional leaders) has declined significantly since the modernisation of the kingdom has gained momentum, especially within the governmental organisation and the economic structure.

To take the above three views in perspective, we could say that even when certain assumptions are formulated on the strength of obvious political developments, they are by no means absolute, nor unqualified truths. Hence, even if we accept that the traditional elements of the society (political and economic) are being eroded by new forms of political and productive organisation, we cannot assume that the traditional social groupings have had no benefit from, role in, or influence over the new directions and developments that the society has undertaken.

A similar form of confusion has been between analyses that deal with sectors of the economy and those concerned with social groupings. So when the pastoral sector is perceived as being eroded by particular policies, more profitable sectors of the economy, or by a gradual process of sedentarisation among the bedouin; then it is assumed that the Saudi bedouins are homogeneously marginalised and impoverished social groupings. Yet this cannot be totally true if some of the tribal groups and their traditional leaders have had a degree of involvement in the new political structures.

To return to the sedentarization and detribalisation issues, we must therefore distinguish between the centrally institutionalised tribalism that allows the tribal leadership (sedentary and nomadic) political and economic significance in order to neutralise its effectiveness, and the tribalism which offered the individual full membership in a dynamic and effective political, economic and social structure. "Detribalisation", by the same token, must not be taken as given because of certain political or economic developments (i.e. centralisation of political power, decline of pastoralism or a sedentarization process).

Theoretical generalisations and conclusions, furthermore, are meaningless unless they can be observed in actual and living situations, and are perceived to have particular results and effects. This type of empirical testing and analysis is unfortunately embryonic in the material about the Saudi society and population. Empirical analysis, furthermore, brings out the various complexities of a case, and points out any other operative factors in a particular situation. This is badly needed in the study of the Saudi nomad (as well as in other areas) and the sedentarization process, because we need to discover the bedouins' true status within the modern Saudi society.

In so doing we may demonstrate some of the accepted hypotheses about the Saudi nomads; but we may also dispell some of the myths regarding their distinctive status, and observe their modes of integration within the national economy in all possible dimensions.

This thesis, therefore, aims at first hand study of the modes of integration of the studied bedouin community in the rural setting. This will be through direct observations, as well as by a number of interviews with sedentarized bedouins who are farming at present.

Moreover, our approach not only emphasises the relationship between this process of integration and the national socio-economic developments, but also stresses how these developments have been operative within, and utilized by, the studied bedouin community. This may have occurred within a pastoral, semi-pastoral or settled context. This in effect means that this study initially follows in the footsteps of previous studies of the Saudi nomads, which sought to explain bedouin social change in terms of political processes and planned economic transformation (emphasising the sedentary agricultural alternative). The present study, however, goes on to explore the following:

- A) It endeavours to link two dynamic processes. One is operative outside the sector, and is influenced by factors which may or may not be designed specifically for the bedouins. These factors include the early political changes, the gradual development of the national economy, and the more recent rural transformations. The second dynamic is

operative among the bedouin sector and it springs from two sources: i) their particular position within the context of the previous dynamic, both politically (established relationship to the centre), economically (in terms of resources like land, water and pastoral resources), and socially (in terms of length of settlement and degree of integration); and ii) their own particular response to the operative factors and available alternatives.

- B) It evaluates and assesses the settled agricultural alternative, i.e. the agricultural development programme with its associated policies and incentives. This is done both in general terms and within the studied community.
- C) It develops a theme through which the bedouin heritage in all its dimensions (termed bedouinism in this study) is evaluated and assessed, both in the present 'modern' political and economic context, and in terms of influences on the sedentarisation and integration of the studied bedouin community.

3 Structure and Areas of Inquiry

This thesis could be seen as divided into two parts. The first four chapters are introductory in the sense that they set the scene for the last four, which are mostly analysis of the data gathered during the field work period.

Chapter One is a review of the literature relating to the study of

nomads and the sedentarization process. In this chapter a basic theoretical framework is formulated for perceiving nomadic populations. One of the main concerns of this literature review is to construct a theoretical stance which dispenses with the often utilised conceptualisation of the nomads as a distinctive social formation, by virtue of their economic capital, mobility and social formation. These particular characteristics, moreover, are sometimes perceived as being directly opposite to sedentary agricultural production.

This chapter will show how misleading the above conceptualisations are to a proper understanding of the nomadic phenomenon. It will go on, furthermore, to look at the sedentarization process in the light of a theoretical stance that views any nomadic productive system and the development process it undergoes, as largely a function of the specificity of the national setting in which it exists (not unlike sedentary productive systems), and not only its own particular nature. As such, the sedentarizing nomads are not moving from an original social formation to a more developed one; nor are they undergoing, theoretically speaking, a radical social change. The focus in this chapter, therefore, is on analysing the nomadic sector as part of their regional national surrounding, and not as a distinctive feature in it.

Chapter Two re-examines the literature regarding the sedentarisation of the nomads in Saudi Arabia. It also begins to develop a theme which distinguishes theoretically between the nomad and the bedouin, and also between tribalism and bedouinism. In the first case nomad refers to the economic pursuit of nomadic pastoralism; while bedouin refers to (an Arab) pastoral heritage, be it presently practised or recently abandoned. Tribalism in the second case cannot be confined to the

bedouin sector in the Saudi context, even when it has been closely associated with pastoral nomadism and bedouinism. In developing this theme the chapter is asking what seem to be some very important questions:

1. Can we call the early sedentarization programmes and policies a detribalisation of the Saudi nomadic population?
2. Has the Saudi government pursued a consistent policy of dispensing with the important characteristics operative in the traditional society, which include tribalism in its multi-dimensional facets (i.e. political leadership, economic integration and social identification)?
3. If indeed there is a detribalisation process operative in the Saudi context, where is the impetus for this process? Is it a result of political processes or economic ones, or perhaps a combination of the two?

Naturally, this theme of inquiry can not be dealt with and concluded in the space allocated for this chapter alone. It is a theme that also runs in other areas of concern of this study, especially in some of the latter empirically based chapters. This is because it is the view of this study that we can only find out clear answers regarding these issues by direct observation in specific cases, and not merely by general theoretical observations.

Another important aspect of this chapter is a re-examination of the already set view of the stages of sedentarization among the Saudi

bedouin sector. The effort will be toward creating a place within this process for the most recent developments in the rural sector (1970s and 1980s); and their great effect (still largely unstudied) on the sedentarization process in terms of encouraging it and defining the quality of change encountered by the sedentarized bedouins.

Chapter Three is a methodological chapter which endeavours to introduce the area of study as well as describe the methods employed in the gathering of the data. A section of the chapter will describe the difficulties encountered by the researcher (as a native woman) in the course of field work.

Chapter Four is necessarily a large one because it looks at the Saudi agricultural sector from different aspects. It is divided into three sections. The first looks at the basic general characteristics of the sector including its physical resources, and its place within the national economy (in terms of population, productivity and previous development efforts). The second section looks in detail at the all important land reforms and distribution policies. It examines the various legacies of the land utilization traditions, which existed in the country and how these have been reflected (or utilized) in the construction of the policies introduced by the modern national government (both early on and at present).

Section three of chapter four deals with the programme for the development of the agricultural sector. It concentrates mainly on the wheat subsidisation part of the programme, because it is extremely relevant nationally, as well as in the area studied for this thesis. The section ends with an examination of the Saudi agricultural

development programme within the context of some of the literature on rural development. It endeavours to put the Saudi case of land reforms and agricultural programme in sharp focus in relation to general conceptual thinking, as well as to internal political and economic motivational factors. In concluding the chapter the general implication for the Saudi bedouin in entering the agricultural sector is partially explored, though total understanding can only be achieved in specific cases by direct observations.

Chapter Five begins the second stage of the study, which also analyses the empirical data gathered in the course of field work. The first part of the chapter focuses on developing a viable definition of the variable sedentarization, in order to have a clear conceptual view of what the sedentarization process entails. It will also go on to detail three periods of nomad settlement in Saudi Arabia, which are a reflection of the previously studied history of nomad sedentarization (chapter 2), and the agricultural sector (chapter 4). After this is done, the data of the interviews connected to the history of settlement of the interviewed bedouins will be examined in detail with reference to the already set settlement periods. This is to test if there are indeed differences between the factors operative in each period. Other variables like experience of pastoralism, non-rural work experience, incentives for settlement and previous experience of cultivation will also be examined thoroughly in the light of the previously outlined settlement periods. This again is to discover if there are any differences between settlers in the different periods.

Chapter Six looks in detail at the agricultural operation in the studied region, as well as among the interviewed bedouins. Land

distribution practices, agricultural production, machinery, labour, output and other non-agricultural resources will form elements of the analysis. The chapter will endeavour to highlight the particular situation of the bedouin interviewed as sedentarised pastoralists (who are in some cases comparatively new to cultivation); but it will also insist that their situation must not be thought of as being radically different or isolated from that of the sedentary farmers. This is because the patterns of production are, for the most part, based on new technologically more advanced cultivation methods, which are also new to the region and the sedentary farmers. These patterns of production, moreover, are a result of the new rural economic development, the incentives offered and the alternatives available. By carefully outlining the new agricultural productive system the chapter will be indicating the quality of change encountered by the sedentary bedouins.

Chapter Seven focuses on animal wealth among the interviewed bedouins.

The importance of this chapter is due to two factors:

1. The sedentarization process and the social change associated with it, in the case of the Saudi nomadic sector, emphasise the decline of the primary economic dependence on animal stock. As such a high degree of sedentarism in a particular community is associated with a significant decline of its livestock breeding activities. The chapter not only examines this aspect of the household economy among the interviewed bedouins, it also looks at the changes apparent in the present practices of livestock breeding (i.e. care and grazing methods), due to the process of social change

associated with the new patterns of production. It also endeavours to link animal wealth to cultivation and agricultural production among those interviewed. By doing so, the chapter asks whether or not we are justified in associating livestock breeding with bedouinism only.

2. It continues to explore the themes begun in chapter two. In this chapter bedouinism as an economic activity (pastoralism or the reliance on livestock breeding) is explored among the bedouins interviewed. This is to examine the place that the traditional economic legacy occupies in the present-day community. It will also highlight the effect of the non-pastoral productive activities and non-traditional developments on the internal changes in the studied community, particularly on the previously all important livestock resources.

Chapter Eight looks at selected features of the socio-economic system in the studied case. It will be basically concerned with continuing and elaborating the study of bedouinism as a concept and a practice, both in general and particularly among the individuals interviewed. Furthermore, the chapter will try to examine the effect of the said legacy on the perceptions, self identification and attitudes of the interviewed individuals, and their commitment to the farming livelihood. The accent of the chapter therefore is on the bedouin as a farmer. Four areas of inquiries will be looked at:

1. The means through which the images of the nomads and bedouins become possible in the literature and in the Saudi popular

culture, and how these images are reflected in the study of the sedentarization process, especially when it is a planned agricultural settlement.

2. The way in which the bedouin legacy is reflected in the perceptions and attitudes of the interviewed bedouin farmers towards their agricultural activities.
3. Women's position in the studied bedouin society, and how this relates to both the traditional legacy and the new social and economic formations (nationally and locally).
4. A comparative study of how twenty-three sedentary farmers responded to the same section of the questionnaire (relating to perceptions of and attitudes towards farming issues).

The amalgamation of the analysis of the four areas of inquiry will hopefully allow us to pass judgement on how far the pastoral bedouin ideology and way of life (i.e. bedouinism in its nomadic form) could be related to the actual current practices of the bedouin farmers. It will also help us to determine whether or not these traditional aspects are visible in the interviewed bedouins' own perceptions, attitudes and commitment to the farming operation.

4 A Postscript

Not unlike most research endeavours, this study was conceived quite differently from the final form it has gradually assumed. This is due to a combination of factors, the most important of which is briefly described in chapter three dealing with this study's region and

methods. The difficulties and obstacles encountered during the fieldwork would not be ordinarily faced by a male researcher dealing with the same topic. This has resulted in a focus and concentration that may seem not so comprehensively all-encompassing as would be customarily required from regional analysis.

In particular, we are well aware of the lack of material directly connected to the process of decision making within the regional political and economic organisations (e.g. the Amir's office and the regional offices of the agricultural extension services). The rationality for the decisions made in these offices is important because they determine the resource distribution patterns, and the accessibility of the important agricultural loans, services and incentives to the bedouin farmers.

Saudi women (like women in many other places), however, have never been privy to the corridors of authority; in this case not even to the simple goings-on of the government offices and organisations. Hence, we can not expect the female researcher to perform a near impossibility, nor to cross the line between the private and public sphere without difficulties and obstacles. These socially prescribed limitations are undoubtedly reflected in the focus of this study.

References and Footnotes

- (1) No references or footnotes will be offered in this introduction, because all references are available in subsequent chapters.

Chapter One

Nomadism and the Sedentarization Process

Introduction

The phenomenon of nomadism has been an intellectual preoccupation for scholars, historians and travellers since early times. Such fascination with the nomadic way of life seems to have originated from what appears to be its striking opposition to the sedentary one. Nonetheless, the long history of the study of nomadism seems to have produced relatively little precise knowledge of what nomads are about. Instead, ambiguous attitudes and stereotypical views have been produced time after time, and from one generation to another. At first, nomads were primarily associated with military prowess, disasters and savagery. In modern times, when these images no longer apply to the nomadic way of life, it is either idealized for its freedom and independence, or thought of as anachronistic and an embarrassment to progressive nation-states.

Since the 1950s, nomadic studies have gained new momentum not only theoretically, but also through vigorous new empirical research. This is why it is possible at present to differentiate between myth and reality, even though myths and the older ideas about nomads seem to still exercise some influence over some writers and anthropologists.

This chapter does not propose to deal with all relevant issues about nomadism and the sedentarization of nomads. Its main aim is to construct a working framework, through which nomadism and nomads could be conceptualised and perceived. Once this theoretical framework is achieved, the sedentarization process comes into sharper focus. Not only do we understand why settlement is undertaken, but we also understand the quality of change that sedentarization could bring.

In the first and main section of this chapter, this necessary basic theoretical frame work is tackled. It will start by outlining some of the basic theoretical arguments that have been used to depict nomadism and the nomadic way of life as being not only distinct, but also opposite to a sedentary way of life. These arguments relate specifically to nomads' mobility and the nature of their capital and political organisation. Once these viewpoints have been outlined, the rest of the section will attempt to show how misleading these conceptualisations are to a proper understanding of the nomadic phenomenon. This will be done by looking at the contribution of some other anthropologists, particularly those dealing with the nomads of the Middle East. Along the way and particularly at the end of this section, an alternative theoretical stance will be outlined, which will hopefully be a better tool to understanding what nomadism entails and what sedentarization means.

The second section will deal with the various models of sedentarization, that have been utilised by different anthropological writers. It will also outline some of the major ways that nomads are integrated into sedentary societies in the Middle East. At the end of this section, the major areas of concern in relation to the sedentarization process will be pointed out.

This chapter is selective in so far as it concentrates on specific issues, and the relevant material about the type of nomadism in a certain area (the Middle East). The justification for each focussing will, hopefully, become clear in the course of the argument in the chapter.

SECTION I PASTORAL NOMADISM

1. A Definition

Pastoral nomadism , in its pure form, has been described as resting upon the exploitation of the primary producer (the herb layer) through the intermediary of gregarious migratory herbivorous flocks of herds under the management of a human group. ⁽¹⁾ This ecological feature alone, however, does not define the system of pastoral nomadism. Two other features are important for a full definition. These are the following:

1. Production is organised within an autonomous domestic unit, based mainly on a family nucleus.⁽²⁾ Production within the group requires a certain equilibrium between the domestic group and the herd ⁽³⁾, and mostly internally based labour resources.
2. Nomadic pastoralism is also organised within a community structure, through which the domestic units of the community enjoy access to grazing lands, wells and other natural resources, which are collectively developed and administered. ⁽⁴⁾ Land right is, therefore, a result of the collective community, rather than a consequence of production (as in village communities). ⁽⁵⁾ This type of ownership and the economic unit's right to it allows for the practice of this fluid ecosystem, as well as the implementation of the herdsman's own strategies for the best exploitation of the environment.

Economically, therefore, the nomadic community may take the form of a territorial community, a defensive bond, ties of co-operation or exchange of animals.⁽⁶⁾ These ties may be governed by a strict political organisation (like the segmentary lineage system), or have an essential characteristics of variability (like in age-set and most cattle breeding societies). The basic nature of the nomadic societies (as a productive entity) has been described by Claude Lefebure as being:

"in their particular combination of a domestic with a community pattern of production, the whole being characterised by the autonomy of the domestic units on the one hand and on the other, the de facto character of the actual community organisation. This trait goes hand in hand with the pre-eminent function of the community's own ideology in the production process." ⁽⁷⁾

The comprehensive definition above represents, like most definitions, an ideal type, as well as an individual point of view. It will be used, however, as a starting point for this section. Other definitions and points of view will be presented at the end of the section.

2) The Political Organisation of the Nomads

Pastoral nomadic societies are often represented as being egalitarian, independent and economically homogeneous.⁽⁸⁾ The frequency of the segmentary lineage system among nomadic groups tended to re-affirm the conviction that such societies favour the preservation of political equality.⁽⁹⁾ This is because classical anthropology has characterised

the segmentary lineage system as being the political feature of stateless societies ⁽¹⁰⁾, as well as having "no sharp divisions of rank status or wealth."⁽¹¹⁾

A) The Tribal System

The tribal system (organisational structure of the segmentary lineage societies) is based on the patrilineal descent of the groups. Evans-Pritchard in his description of the political organisation of the Senusi of Cyrenaica in 1949 described the tribe as follows:

"A tribe is conceived of as a huge family descended from a common ancestor, from whom the tribe generally takes its name. Hence its segments can be figured as a series of political sections or as genealogical branches of a clan."
(12)

Evans-Pritchard also described the segmentations and divisions of the tribe as being generally in two or three primary divisions (sub-tribes). These primary divisions split into secondary divisions, and yet again into smaller units. Each of the smaller divisions are exact replicas of the larger ones, with each having a common ancestor (who descends from the original one), and exclusive rights to its lands. More importantly, Evans-Pritchard describes the segmentary structures as being a system of balanced opposition between tribes and tribal sections from the largest to the smallest levels of divisions; with each of the segments having its own tribal head. Political leadership, therefore, is limited to situations in which a tribe or segment of it acts corporately. ⁽¹³⁾

The implication of such representation is that the subsections of the tribal groupings stand as autonomous at one level (by being opposed to each other), but are united at the higher level of social organisation (through common descent). The relevance of such representation of the tribal structure to the above characterisation of pastoral nomadic societies is too obvious to be elaborated. This has resulted in the particular identification of the segmentary lineage system with nomadic society (14).

Evans-Pritchard has been unequivocal in his assessment of the lack of dominant segments in the tribal society. Consider the following:

"There is no association, class or segment which has a dominant place in the political structure through the command of greater organized force than is at the disposal of any of its cougeners." (15)

"The tribal system, typical of segmentary structures everywhere is a system of balanced opposition between tribes and tribal sections from the largest to the smallest divisions, and there cannot be any single authority in a tribe." (16)

B) Some Theoretical Debates

Evans-Pritchard's analysis of the social organisation of the segmentary lineage system has not only been influential in anthropological tradition, which agree with his theoretical stance, but also became the starting point for divergent theoretical and analytical developments. Some of the theoretical debates surrounding the segmentary lineage

systems are the following:

Firstly: The extent to which the segmentary lineage is an ideal model and the extent to which it is a reality. The debate runs along a continuum between two extremes: Those who accept the model as a reasonable approach to the representation of tribal society (mostly nomadic) and those who do not. (17).

1. Ernest Gellner, for instance, has described the model in detail, using the mobile pastoralists of the high Atlas. (18)
2. Others urged the further modification of the model by including other important elements, like territorial tribal groups, (19), and alliances between different units other than the descent groups (20).
3. Some define it as an ideological model that tribal groups use to depict themselves, but claim that it is in fact incapable of explaining the actual behaviour of the group. This group includes those who argue that the tribal segments, in reality, are neither balanced nor equal economically and politically. On the one hand, the productive units have differential access to the resources, which leads to differential economic status and to political differentiation. (21) On the other hand, some argue that genealogy and descent are in themselves factors for creating dominant groups within the system (22). Khazanov explained this process in 1984:

"The reciprocal position and interrelations between the

segments of one level are not identical, not only from the point of view of corresponding numbers, size and strength, but also of political weight. Whilst the majority of segments of one level are thought to be more or less equal, one of them, from the point of view of descent, notoriety and, most importantly, political position stands higher than the rest, is 'more equal than others'." (23)

In other words, this is how section chiefs are chosen from chiefly lineages, and how tribal leadership is provided by the chiefly lineages.

4. Others within this debate argue for the total abandonment of the segmentary lineage schema. Emmanuel Marx, for example, thought that the essence of the tribe needs to be reconsidered. In his opinion, tribes are not primary political units, but economic subsistence units with a complex range of institutionalised relationships (territorial and defensive). (24) He also called for the total abandonment of the segmentary model, if anthropologists wish to fully comprehend tribal societies (25).

Secondly: another group of anthropologists (mainly French and Marxist) have more or less accepted the model as it stands, and have come to regard tribal societies as a specific social formation (mode of production). They, therefore, set out to prove that inequality and contradictions do exist in such societies. In one such analysis of segmentary nomads, the equality existing between the purely pastoralist units of production is thought to be genuine, but it only concerns the

heads of the households and not individuals as a whole. As such, women and young men may be equal to each other, but they remain dependent upon the head of the family (for young men this is of course temporary). So "equality applies to heads of the family in their capacity as representatives of autonomous domestic units." (27).

The autonomy and equality of the units, however, does not rule out the unequal accumulation of livestock capital. Under certain conditions, the social and natural factors that define production could lead to economic, and political differentiation. For example, the family's labour supply depends on its ability to produce offspring. Furthermore, the individual's talent (especially that of the head of the household) as strategist and manager determine the tribal unit's status in relation to others.

These factors tend to generate unequal pastoral results, with some productive units accumulating more animal wealth than others. Large owners of livestock (with increased status) can therefore weave around themselves a complex set of economic and social relations, which prove to be for their great advantage (28). Social and economic status, for instance, could lead to better labour resources (through additional labour), and better access to resources. This process allows the successful pastoral units to survive natural disaster, like drought and epidemics (thought to be a major element of equalization in nomadic societies), as well as gain political prominence. This ultimately prepares the ground for the creation of groups specialising in religious or political functions, especially when the process has greatly affected the whole group. (29)

The above gradual transformation process is depicted (under certain

conditions) for productive units existing in non-stratified conditions. The transformation for tribal units within stratified societies is more rapid and effective. When the same mechanism for creating differentiation exists, it allows the prominent groups to appropriate fixed resources for themselves (by claiming common grazing grounds, or switching to settled farming). The impoverished groups, on the other hand, also switch to other income generating activities, often working for the newly rich stock breeders or farmers (30).

The question arising from the above description is: how does the tribal productive system maintain itself as a distinctive system with a structural autonomy, as well as an egalitarian ideology, when the system seems to encourage the unequal accumulation of capital? The answer given by Lefebure is that the process only occurs in periods of rising labour productivity, and only at the level of accumulation within the domestic family. This means that the contradiction within the society is mainly between the domestic framework of production and the community conditions of reproduction. In such situations, the divisions within the society could lead to the splitting off of certain groups who become specialised in pastoral activities, and who ultimately accede to autonomy (30). Lefebure also stresses that the same mechanism that allows the creation of the rank of noble man or wealthy herdsman can act to undermine the basis of their prestige. Their position will oblige them to spend more, redistributing portions of their capital on displays of wealth (in rituals and sacrifices) or to tide their community over in periods of scarcity (31).

The above analysis of what might be termed a nomadic mode of production within the context of the segmentary lineage system is clearly open to major criticisms. These will be tackled at a later point of the

section, when the nature of the pastoral nomadic systems is examined.

C An Overview

In the above brief discussion of the segmentary lineage system, some major difficulties are apparent in the anthropological debate on this system, which leaves the non specialist thoroughly confused.

1. There does not seem to be any agreement on the theoretical status of the tribe (the major unit in segmentary lineage societies). Some see it as a political organisation which defines the nature of the society (as stateless), and which is reflected in the reality of the group. Such analysis include those who accept the classical model or a revised version of it, or approach it from a marxist perspective. Another approach sees the model as an ideological system of social representation, which does not define the real economic capacity or the political organisation within tribal societies. Yet another approach exists, which advocates an identification of the tribe as an economic unit, characterised by subsistence, which may exist within weak or strong institutional interrelations (32).

2. Another difficulty lies in the overlapping of segmentary lineage societies with pastoral nomadic ones. There is nothing in the classical depiction of segmentary societies which identifies their productive system (sedentary versus pastoralist). Also nomadic societies may operate within a segmentary lineage system, as well as within other systems (like age set societies and modern ones). Apparently the

confusion stems from the focussing on the alleged egalitarianism and autonomy within both systems, as well as the frequency of finding both combined in the same society. This is not a helpful approach to the understanding of either system.

3. On the empirical level, anthropologists have found many societies in which genealogy and segmentation exist. They do not agree however on a uniformity of structure, nor on a characterisation of the structure ⁽³³⁾. Anthropologists for example distinguish between stratified and non-stratified segmentary systems: the former being a result of the relationship between the tribal society and the outside world. On the other hand, some anthropologists have concluded that among the various types of tribal societies they studied the only common feature they found was that the segmentary principle was operative and that territorial groups were based on descent ⁽³⁴⁾.

The above seems to indicate that we cannot rely on the segmentary lineage model exclusively to explain tribal societies and nomadic ones. It may be applicable in certain cases and under certain conditions, but any analysis should be guided by the specific reality of the studied cases, taking into consideration all of the above qualifications. Only then can we begin to approach a proper understanding of the specific case.

3 Nomads and Sedentaries: Two Opposites?

Nomadic people since ancient times have been burdened with ambiguous

images. These may describe their lifestyle variously as free, independent, full of strife and hardship, or savage - to mention only a few. The nomads themselves have come under the same scrutiny of stereotypical characterisations. Their images range from the fierce raiding warrior, to the noble egalitarian, who has no interest in fixed property or wealth.

These images (which are mostly propagated by sedentaries) could be the result of misunderstood realities, or arise from the essential polarity between the sedentary and nomadic productive regimes. Nomadic studies have come to inform us of the significant differences between nomads and sedentary societies. Two of the major ones are the following:

A) Mobility Within the Productive System

The social significance of nomadic mobility is that it give the opportunity for continued choice and change in residential association, a characteristic inherently denied to settled people. ⁽³⁵⁾ This basic feature of nomadic groups, within their particular ecological system, has given rise to differentiations of particular kinds between sedentary productive systems and nomadic ones. Spooner pointed out the basis for such differentiation as being that "the fluidity of nomadic society renders it ideal subject matter for the study of politics which is otherwise tied in some way to fixed economic interests"⁽³⁶⁾.

The particular combination of autonomous stock rearing with residential mobility has long been established as being opposite to sedentary production and settled population ⁽³⁷⁾. This emphasis, we are told by Neville Dyson-Hudson, has arisen from geographical descriptive accounts, as well as from anthropological studies of culture areas and

cultural types, ⁽³⁸⁾ which resulted in the construction of ideal type, and generalised models.

Such studies, moreover, have resulted in a general conceptualization of nomads as economically independent, politically free, and essentially hostile towards the unfree life of sedentary communities. The nomadic lifestyle, moreover, is thought of as ungovernable, and uniquely suited for the military conquest of settled communities as well as escape from the reach of centralised powers ⁽³⁹⁾. Some of the contemporary anthropologists, however, who frequently observe nomadic societies in subordinate military positions to the present government systems, tend rather to regard the nomads' social structures as predominantly tied to the ecological zone they inhabit; thus linking movement patterns with terrain, climate and animal species ⁽⁴⁰⁾, rather than policies.

Nonetheless, other areas of the systematic study of pastoral nomadism have continued to emphasise spatial mobility as a mechanism of political adjustment, rather than a factor resulting from ecological adaptation. ⁽⁴¹⁾ There is, of course, a general agreement that mobility is frequently advantageous from an ecological point of view ⁽⁴²⁾. The emphasis here is on the structural significance of mobility, both within the social system as well as in relation to outside systems. Philip Burnham has argued that a society's reliance on spatial mobility should be considered to be of the same structural order and status as a society's use of lineage models to order political relations ⁽⁴³⁾. He goes on to say:

"Once established as a principle of political organisation, fluidity of local grouping proves to be a remarkably

resistant feature of any society. In particular, spatial mobility greatly inhibits the development of political centralization and although perhaps to a lesser extent, class stratification." (44)

This feature has been described by Burnham as the source of the structural conservatism, which is frequently seen in the transformation of nomadic pastoral societies to centralised forms of social systems. (45) Furthermore, he locates the structural forces responsible for such transformation (i.e. to sedentary centralised conditions) in factors external to the nomadic systems, and in the institutionalised relationships between the nomads and the sedentary populations.

Others have stressed the particular combination of an autonomous animal herding productive unit and the residential mobility of the nomads, as creating the cultural specificity of nomadic groups. Spooner suggested that nomadism should be treated as a "trait of cultural ecology", characterised by a "lack of interest in fixed property and fixed resources". (46) For Spooner, therefore, the nomads' dependence on an unimproved natural environment "generates a characteristic nomadic ideology in all nomadic societies." (47) This he sees as creating the cultural polarization between peasant economics and nomadic ones. (48)

B) Animals as Capital

Livestock as capital within the ecological system of pastoral nomadism has figured highly in a number of anthropological accounts depicting nomadic societies. For example, William Goldschmidt has emphasised

the relationship between animal herding and the development of certain attitudinal and personality traits. ⁽⁴⁹⁾ Thus, the vulnerability of animals to theft leads to the development of a defensive society (hence the military posture of nomads). Likewise, the need to move the herds from one place to another at will develops in the nomad a lack of inclination toward routinised work (like agriculture). Or again, their need to slaughter their animals (and establish dominance over them) is also said to develop certain attitudinal attributes in the pastoralists (lack of empathy). ⁽⁵⁰⁾

The above are only minor themes of thinking about nomads and their animals, which are not widely current among anthropologists. A much more relevant approach to the ownership of livestock and the dependence on undeveloped resources, is that they develop the need for the group to disperse at certain times and aggregate at others: in the first instance looking for pasture, and in the second avoiding the dry season and establishing the community. This is how autonomy and organised cooperation become institutionalised in nomadic society - the latter being essentially in relation to territoriality.

So while some anthropologists had emphasised the movement of nomads as the most important feature in their society (see above), others have stressed that the ownership of animals is what makes nomadic societies not only mobile, but different from agricultural ones. Frederick Barth developed such a theme most clearly in 1973 ⁽⁵¹⁾. He was, however, trying to locate the difference between two types of activities (rather than two groups of people) within one locality:

"The pastoral regime of production has essential properties which contrast with the other productive regimes of the

region, and which in various modulations determine the form and relations of nomads, dependent on this regime for their maintenance, to the other population sectors of the region."⁽⁵²⁾

Barth characterises the pastoral capital as a determining element in the management options. Two notable features are a) that saving and investment are necessary under all circumstance, because herds are insecure, perishable and must be replaced; and b) such investment is possible without benefit of any economic institutions, because one of the main products of the herd is lambs (calves etc). ⁽⁵³⁾

On the other hand, in an agricultural economy land is imperishable and cannot be consumed or increased without the benefit of elaborate economic institutions. The difference between the two types of capitals is, therefore, that the nomadic ones has a great potential for rapid growth (or decline), regardless of what the public institutions and facilities may be. This is because part of the herd's product is actually "capital gain", which only an active management decision to slaughter will remove from reinvestment. The agricultural sector has no such ready way for growth unless specific public institutions are available.

In a region like the Middle East, where pastoral and agricultural societies exist side by side, the development potential for each productive system is vastly different:

"It should follow from the preceding argument that groups of such (pastoral) households will always have the potentiality of economic take-off: in prosperous times their enterprise

will expand, their capital increase, their economy will grow. Compare this to the classical peasant situation as described from many parts of the world. Households are tied to an agricultural regime with blockage against reinvestment and growth, with a fraction of the product constantly tapped off by a tax or rent system."⁽⁵⁴⁾

Barth uses the above argument to promote the view that under certain conditions, the pastoral sector of a regional economy will have the advantage over the agricultural one and dominate it. ⁽⁵⁵⁾ These conditions are a) when the regional economy does not have market facilities for converting capital, and b) when each sector of the economy is mobilised by a distinct ethnic group. He illustrates this theme by pointing out the dominance of the pastoral groups within the past kingdoms of East Africa.

This is, of course, only one pattern of the relationship between agriculture and pastoralism. Another pattern is when the population of a region is characterised by households with mixed economies. In this case Barth continues to argue for the buoyancy of the pastoral sector of each household, as rendering them more prosperous than pure agriculturalists' households even when they occupy less favourable regions. ⁽⁵⁶⁾ On the other hand, the agricultural sector is capable of unprecedented growth under circumstances favouring technical developments (e.g. in irrigation), and smooth administrative and institutional functioning. These periods of growth are quite breathtaking when compared to similar events in the nomadic sector.⁽⁵⁷⁾

Frederick Barth, in the above account, has not been concerned with the internal mechanisms of social production within the pastoral household,

nor with the ecological conditions governing pastoral life which are said to be favourable to equalitarianism and homogeneity. As was seen earlier (see definitions), some anthropologists believe that there is an equilibrium between labour and production in pastoral units. This element, when considered together with the strong linkages between the nomad, his herd and his environment, could be used to paint a thoroughly contrasting picture (especially when the environment is arid or semi arid).

Gudrun Dahl, for example, related pastoral equality and homogeneity to ecological constraints. ⁽⁵⁸⁾ Two elements are important in Dahl's opinion for promoting equality: a) the limits to the possible accumulation of wealth, and b) obstacles to the transferal of undivided wealth. Both these two elements could be related to the pastoralist's dependence on household labour in animal herding.

"One major goal in the pastoral strategy is to achieve a balance between the size of the household and the herd. But from the point of view of insurance against risks, a large family with a large herd is certainly to be preferred to a small family with a small herd; thus one strives towards a balanced growth of both."⁽⁵⁹⁾

A rich herdsman, therefore, is always seeking to increase his labour supply (by taking on more wives, or incorporating poor sons-in-law). Large herds, moreover, are geographically dispersed to minimize the risks of total loss through disease or droughts (usually to the care of part of the family), or redistributed to different households through the practice of bridewealth ⁽⁶⁰⁾. These mechanism maintain homogeneity and equality.

How can we relate this picture of balanced growth and a checked accumulation of wealth, with the previous one of buoyancy? Admittedly, Barth was talking in terms of differences between two types of activities, and in historical terms (in part of the analysis). Still, the mostly biological picture he draws could benefit from considering more of the relations of production in each productive system (even at this level of analysis).

At this point we might also remember Lefebure's analysis, in which he tried to relate nomadic surplus production at the household level to the maintenance of the community's conditions of reproduction. In his scenario, surplus accumulation is possible within the productive unit in periods of rising labour productivity (good natural conditions and good family productivity). The animal wealth accumulated, however, is either dissipated through increased spending and displays of rank and wealth, or transferred into fixed property (agricultural land mainly). The impoverished households similarly drop out of pastoral nomadic production through settlement. When accumulation affects the whole group, it could result in either a gradual transferal to cultivation (and the intensification of unequal relations), or the overgrazing of pastures which in turn reduces the numbers of animals. In either case, the end result is a splitting off of the nomadic group that does not conform to the dominant tendencies and ideology of the nomadic pastoral structure.

In all of the three analyses discussed above, pastoral nomadic production and society are presumed to be distinct from agricultural production and society, both theoretically and in actuality. The various arguments, therefore, either try to locate this difference, or account for some similarities at different levels (inequality of wealth

and power). There are of course striking differences between the two productive systems, but are we justified in polarizing the two and magnifying the differences? This point will be discussed in the coming section.

4) The Nature of Nomadic Pastoralism

A) The Contemporary Nomads

While trying to formulate a typology of pastoral nomadism, Khazanov in 1984 wrote the following:

"Pastoral nomadism proper which is in its most pure manifestation is characterised by absence of agriculture, even in supplementary capacity. Despite some still existing opinions to the contrary, pure nomads are only recorded in certain regions of pastoral nomadism (North Eurasia, High Inner Asia, the Eurasian Steppes, Arabia, the Sahara), but even in these regions pastoral nomadism co-exist as a rule with other forms of pastoralism. Semi-nomadic pastoralism is much more widespread throughout the world."⁽⁶²⁾

Even the most avid believers in the distinctive nature of pastoral nomadism, do not deny that there are undeniable connections between contemporary nomads and agricultural production. W. Goldschmidt in his typology of nomads stated the following:

"There are four basic variables that make for considerable internal diversity in what we consider pastoralism. The

first of these is the nature of the relationship of the society to agricultural production. No pastoral nomadic society is entirely free of involvement either directly or indirectly with agricultural products."⁽⁶³⁾

He went on to classify the relationship of nomadic society to agricultural in three types:⁽⁶⁴⁾

A - Tribes that are independent of agriculture as communities, but who have a symbiotic relationship to farming communities (like the Masai and the Berber tribes).

B - Those who are an element in a plural society in which they are an integrated independent ethnic unit: sometimes subordinate to farmers (like in South West Asia) and sometimes superordinate to farmers (e.g. Tuareg, Tutsi).

C - Those who engage in secondary farming activities.

Goldschmidt, however, continued to draw a classification of pastoral nomadism, which hardly takes into account the relationships between nomads and other productive systems, ⁽⁶⁵⁾ and only highlights the ecological and cultural elements of nomadism (discussed in chapter eight).

Talal Asad has also stated that all known nomadic societies cannot be thought of as aboriginal or isolated. Anthropologists, therefore, must make a theoretical distinction in their analysis:

"Surely a basic theoretical distinction must be made between aboriginal social groupings which are assumed to be isolated and historically determinant populations who interact systematically. The societies that anthropologists have studied are all of the latter kind."⁽⁶⁶⁾

Neville Dyson-Hudson made a similar argument, when he was lamenting the state of nomadic studies in 1972. He first distinguished between two styles of thought in anthropology. One constructs opposite ideal types, drawing distinctions between 'nomads and peasants', 'tribal and civilised', and the 'desert and the sown'. The second style of thought is 'behavioural and realist', which arises from the need to handle direct data. In the latter style, the specificity of the case is always emphasised and the variabilities of the factors brought out.⁽⁶⁷⁾ he went on to say that it is unprofitable to mix the analytical framework of one type of thought, with the data of the other.

"More than anything, it is the essentialist cast of so much thought about nomads (including , as I shall suggest later, the concept of 'nomadism' itself) which is responsible for the otherwise paradoxically slow development of studies in nomadic behaviour..... We settle too readily for categories which do not so much explain as explain away the realities of nomadic behaviour."⁽⁶⁸⁾

Dyson-Hudson's call, however, is for a thoroughly empirical approach, and the separation of the concept of "nomadism" into its two components: as movement, and resource extraction. Yet even when this approach had been followed, it led in some cases to the polarisation of the nomads and the peasants - as was advocated by the definition of

nomadism as 'cultural ecology'⁽⁶⁹⁾, with a lack of interest in fixed resources as we shall see later.

B) Theoretical Considerations

Due to the general realisation and acceptance of the fact that there is no social form common to all pastoral nomadic societies ⁽⁷⁰⁾, some of the newer nomad ethnographers have given a dominant role to the variance of ecological condition as explanatory factors in the variation in nomadic social forms ⁽⁷¹⁾. This tendency among some anthropologists had been criticised as being 'ecological reductionism' or an exaggerated preoccupation with the material aspects of production. ⁽⁷²⁾ In defending the ecology perspective, Dahl argued that any anthropologist wishing to use the "ecology" as an explanatory variable in the context of pastoral systems must take it very seriously and qualify it with precise data. Dahl's justifications for using this perspective are: a) ecology is the first step toward a comprehensive analysis at the level of the economic base, and b) ecology seems to be more a determining factor with pastoral nomadism generally, and especially for some pastoral groups (in East Africa). ⁽⁷³⁾ Dahl then went on to analyze the Boran case in terms of ecological factors encouraging equality (see previous section).

So it seems that the ecological approach itself which was born out of necessity to modify the 'culture' and 'ideal type' style of analysis, leads in some instances to further identification of pastoral nomadism as a distinct type of production. This tendency was discussed by Talal Asad:

"An overdue concern with rehearsing the biological and environment constraints of animal husbandry not only fails to tell us anything about such crucial differences and similarities [between peasants and farmers], it also gives the misleading impression that technique in the narrow sense is an independent variable, always determining and never determined by social relations in the development of social formations."⁽⁷⁴⁾

William Irons raised similar questions when talking about political stratification among the nomads. He began by noting that nomads frequently share important social and cultural features with sedentary groups in their own region, which they do not share with pastoral nomads of other regions.⁽⁷⁵⁾ He went on to state:

"Given the fact that pastoral nomads exhibit such variety in ecology, economy, social organisation, and political organisation, one might raise the question of whether or not it is worth while at all to generalize about pastoral nomadic societies."⁽⁷⁶⁾

His answer to this question was that we can only hope to generalize about issues that are closely connected with a pastoral economy or a nomadic residence pattern (discussed below). Nonetheless, he himself put forward the hypothesis that political influence from sedentary state-organised societies, if strong enough, can overcome the effects of these specific characteristics of the pastoral societies.

Khazanov, on the other hand, believes that we cannot hope to understand nomadic societies without taking into account their relationship with

the outside world; this is both as an historical phenomenon as well as in specific modern cases (77). This point of view contains all the necessary elements to negate the theoretical specificity of pastoral nomadism, as well as the exaggerated polarization of nomadic and sedentary societies in terms of specific attributes (autonomy and equality). Khazanov spells it out very clearly:

"Despite the opinion of certain scholars....., nomadism should not be regarded as a autarkic economic system, even less should it be regarded as a distinct, closed socio-political system corresponding to a specific stage (or stages) of evolution, a system with its own internal laws of social functioning and development."(78)

Khazanov goes on to reject the ecological and the french marxist approaches to the identification and analysis of nomadic pastoralism. His reason is that:

"In my view this is because extensive pastoralism, which forms the economic basis of nomadism, is not a mode of production, but only a distinct form of economic activity. Nor is nomadism itself an autonomous system in any one of its basic parameters. In this respect pastoral nomadism stands in one typological line alongside agriculture, hunting and fishing."(79)

To adopt such a view is to be released from the curious negation of, or perhaps the lack of emphasis on, elements associated with any analysis of a productive system in a regional situation; i.e. the balance of power between groups, the ownership of important resources

(agricultural or pastoral), the role of any existing centralised governments, and the relationships between differing groups. All of these elements have been overpowered by emphasising the distinctiveness of the nomadic socio-economic formation (as an original productive system, sometimes termed primitive nomadism), and/or the political, cultural or ecological specificity of the nomads. This has been so, even when nomads have been studied within the context of the contemporary world, including centralised societies, and a mixed rural economy with agricultural and pastoral groups.

The above is not to negate the significance of the attributes of pastoral nomadism (i.e. animal husbandry and movement). It is rather to place them at the proper level of analysis, i.e. being characteristics of an economic activity (or adaptation), rather than of a political system, or of a specific culture. The justification for adopting such a view for this study comes from a) the persuasive theoretical arguments put forward by some anthropologists (particularly Asad and Khazonov), and b) the valuable contributions of anthropologists studying Middle Eastern nomadic groups (Swidler, Barth, Nelson, Cole). The latter's studies have established that nomadism and agriculture intermingle far more closely in the Middle East than in other region of the world where pastoralism exist. In fact pastoralists and agriculturalists share market and economic facilities, and are related to each other by economic, cultural and political ties. (80) (The nomadism of this region will be discussed in the coming section.)

To return to the theoretical consideration of nomadism: Asad emphasised that the most important point about nomadic groups is not that they move from one place to another in the course of caring for their

animals, but that their political and economic organisation may be based primarily on production for subsistence ⁽⁸¹⁾. Asad also draws a comparison with modern ranchers who combine mobility with animal husbandry, but who are structurally different from nomadic pastoralists:

"On the same principle, free peasants applying family labour to land primarily for subsistence, selling only a small portion of their produce in order to buy consumption goods, and yielding up another portion to the state in the form of tax, are in the same category as pastoral nomads who do the same."⁽⁸²⁾

Khazanov, on the other hand, also criticises Bonte⁽⁸³⁾ and Lefébure 'analyses' which try to establish that 'original' pastoralism is a distinctive mode of production (similar to Germanic society) where the community is formed by the collective ownership of resources and the autonomy of production. He points out that many nomadic groups show corporate ownership of resources, while having considerable internal social differentiation ⁽⁸⁴⁾

Furthermore, Khazanov, also points out that the segmentary lineage system, as the political level of these societies, cannot be thought of as equalitarian, undifferentiated or exclusive to stateless societies (see below) ⁽⁸⁵⁾. Asad similarly states:

"By the late fifties and early sixties, functionalists were able to argue that the segmentary lineage system was not incompatible with centralised societies."⁽⁸⁶⁾

As such, it cannot be thought of as uniquely suited to nomadic societies, nor constituting the principle of integration and equalization therein. The equality of the segments, furthermore, does not define the productive capacity or political status, but represents a formal equality at the ideological level ⁽⁸⁷⁾. Moreover, when inequality had been observed among the nomads of different societies, some anthropologists have tried to explain it away and continued to regard nomadism as a distinctive economic regime.

The mechanisms said to exist in pastoral nomadic regimes and allegedly to guarantee political and economic equality - i.e. dissipation of wealth because of increased needs, and/or the settlement of the rich and poor nomads - do not account for the fact that there is unequal accumulation of wealth. Such analysis, moreover, seem to have a tendency of explaining wider economic structures by the qualities of a narrow population aggregate. ⁽⁸⁸⁾ This is partly due to the arbitrary assumption that the relatively homogenous social group represents an aboriginal system and the stratified social group a later development. ⁽⁸⁹⁾

Asad's main concern was to show the theoretical unviability of a distinctive nomadic society ⁽⁹⁰⁾ (or the nomadic mode of production). Khazanov, on the other hand stresses the following:

"The level of socio-political development in nomadic societies and corresponding changes in the level are very largely determined by the specificity of the societies' relations with the outside world, and with the individual particulars of the latter."⁽⁹¹⁾

The above theoretical stance seems to be the most suitable for a comprehensive understanding of nomadic and pastoral groups in the contemporary world. Not only does it account for such little emphasised elements in nomad analysis, as central governments, nomads-sedentary relationships, and the widely spread practice of semi-nomadism with cultivation; it also clearly accounts for the sedentarisation process, which has been mostly seen within the context of the nomadic system and not emphasised as a process of change within the wider structures of whole societies.

The sedentarisation process, moreover, is commonly held to be a process strongly advocated and practised by centralised government. The official approach to the 'nomadic problem', however, have never been uniform. Some governments preferred to completely eradicate pastoral nomadism (i.e. Turkey and some regions of Iran).⁽⁹²⁾ Others have chosen to pacify their tribal groups, by removing the perceived threats associated with tribal nomadism - i.e. autonomy and the military threat - through so-called agricultural developmental schemes based on the settling of nomads (Libya, Jordan, Sudan, Egypt, Kenya etc).⁽⁹³⁾ On the other hand, the Mongolian experience of collective pastoralism represents another route for bringing the nomads into the confines of the central government without damaging the economic base of their existence while at the same time achieving major political and developmental goals (i.e. literacy, health care, and the establishment of supplementary light industries).⁽⁹⁴⁾

Even more importantly, the sedentarisation route has been a favoured option for the nomads themselves at times of difficulties (or prosperity). To view the 'developments' and changes affecting nomadic groups as arising from both internal factors and external factors seems

to be the proper way to proceed in any regional analysis. This is not to say that anthropologists generally have been unaware of external factors, especially during the sedentarisation process. In fact the opposite is true and governmental policies have come under severe criticism in relation to the nomadic population. This approach, nonetheless, frees us to evaluate the nomads prior to, during and after settlement, with equal emphasis on ecology, control of resources, existing power relations and differentiation among nomads, existing economic and political relationships with other groups and politics and conflict situations from whatever source. Such an approach, hopefully, will be followed throughout this work whenever appropriate.

C) Pastoral Nomadism in the "Middle East"

This section will try to bring into focus the type of nomadism in the area commonly called the Middle East. The term will be used despite its acknowledged western ethnocentricity, partly because some anthropologists have to some extent institutionalised the term in nomadic studies ⁽⁹⁵⁾. The area meant by those anthropologists is not clearly demarcated, but seems to mean Arab and/or Moslem countries (e.g. the Arab pastoralists, as well as pastoralists of Iran and Turkey and the non-Arab nomads of the Sudan).⁽⁹⁶⁾

Khazanov, however, does not accept this characterisation. He divides the region into two areas: the Near East and the Middle East. The first refers to countries from North Africa to Iraq, and from Southern Arabia up to the fertile crescent. It also includes the Sudan and the Horn of Africa. The Middle East refers to Turkey, Iran and Afghanistan. ⁽⁹⁷⁾

Khazanov's typology compounds the problem of ethnocentricity, even when it seems to be more in tune with ecological zones of pastoral activities. This section, on balance, will be mostly guided by the former typology (i.e. not Khazanov), because it is used by a larger number of anthropological accounts.

In describing the nomads of the Middle East, Cynthia Nelson wrote:

"It is a characteristic of Middle Eastern nomadic communities that they are closely involved with a wider society, that they interact with cultivators, traders, administrators, and men of religion, that they depend for their livelihood, directly or indirectly, on economic and political institutions whose centres generally lie beyond their immediate vicinity, and that they share a language and a religion with a population which extends far beyond their area of residence." (98)

Ernest Gellner similarly described Middle Eastern nomadism as being "symbiotic nomadism". The partners involved in this relationship are nomads, sedentarised peasants, and urban populations (99). Gellner also speculated that the permanence of this relationship and the specificity of this nomadism may be the central point around which the cultural traits of the region are built (100) (i.e. the Islamic religion and the political organisation).

Another characterisation of Middle Eastern nomadism is that it is generally multi-resource. W. Swidler stated the following about Middle Eastern nomads:

"The data also clearly indicates (contrary to the idealised view of nomadic peoples) that many nomads raise cereal crops, and are sometimes engaged in complex and demanding forms of cultivation and marketing. It is unrealistic to consider animal stock as the only form of capital or the only means through which nomadic people derive their livelihood."⁽¹⁰¹⁾.

D Other Features of Middle Eastern Pastoralism

In addition to the above characterisation of the nomads in the Middle East as a) being closely integrated with sedentary communities (culturally and economically) and b) having a multi-resource economy, combining agriculture and pastoralism, there are some further features of their pastoralism which have been pointed out by several writers:

- 1) The herds may be composed of three varieties of animals - camel, sheep and goat. Such species, however, have different herding requirements; which means that there is a tendency for specialisation in herding, both within groups and between groups ⁽¹⁰²⁾. The camel herders represent the most extensively mobile group among the pastoralists of the region, and inhabit the driest areas. They, therefore, need to control large areas of land, which leads to larger social units, and more advanced and institutionalised political organisation ⁽¹⁰³⁾. This is basically the difference between the noble camel herders and other pastoral groups in the region.
- 2) The pastoralists of this region have the least rigid migration routes among all pastoralists, because of the

extreme dryness of the region. This means that they usually follow the infrequent rains and the best available pastures in and around their territories. (104).

- 3) Generally speaking, the pastoralists of this region regularly migrate to agricultural areas with which they have numerous historic, economic and cultural ties. This is especially so in Arabia, where sometimes the agriculturalists and pastoralists follow the ancient traditions of joint utilisation of one ecological zone (herds are pastured on harvested fields). Joint utilisation of land is, however, more important in Turkey and Iran, because agricultural utilisation is more extensive. (105)

- 4) Another feature of the pastoralism of the Middle East is that the diet consumed in the tents is similar to that eaten in villages (106). This symbolises the universal integration of the two productive systems into one regional economy. The diet is composed of both agricultural and pastoral products.

E Socio-Political Organisation

Most anthropologists stress the generally variable nature of the social organisation of nomadic groups. (107) As seen earlier, two essential and universal institutions exist among nomads - the family and the community. The family generally refers to no more than two generations of adults, consisting of husband, wife and their children, unmarried sons and daughters (108). The family more often than not coincides with a separate productive household. The community, on the other hand, is variable among nomadic people. It has, however, two main features, i -

being based on kinship and descent, and ii - being related to key resources.

Khazanov lists three possible levels of nomadic communities, which may exist in full in some societies, or only in their lowest levels (109).

These are the following:

- 1 The nuclear community, which generally consists of a number of families closely related to each other and tied by herding activities, co-operative ties, and specific rights to pasture and water resources. This kinship group forms the primary face to face community.

- 2 A number of the nuclear communities unite to form a higher level of community; which meets for pastoral migration (or summer camps), the enjoyment of shared resources, and specific forms of mutual aid and social ties.

- 3 Several communities of the second order unite to make a community of the third order, with corresponding rights to natural resources, and various forms of social, political and economic ties.

The vagueness of the terminology for the above community types is due to the fact that nomadic societies are rarely similar in their organisation, or in the significance they give to each level of community. Some Turkish pastoralists for example are only nuclear communities with no higher levels of integration (due to the strong pressures felt from the central government). In other societies the primary nuclear community may be organised through kinship only, or may

include associated and allied groups.⁽¹¹⁰⁾

Richard Tapper, on the other hand, does not believe that the co-operative herding units (the nuclear level kinship group) constitute a community in the Middle East. For him, these are primarily economic institutions, which are neither stable nor significant politically. The basic community according to Tapper is the 'primary sociological unit' or the 'basic political units'. Hence the summer camp group, who are herding associates constitute the primary community, which is usually based on the dominant lineage with a variable number of unrelated associates and matrilineal kin, and specific rights to resources.

Examples of such primary communities among nomads are the lineage (Fakhath) among Al-Murrah in Saudi Arabia; the camp clusters among the Kababish of the Sudan, which come from the same clan; the camps (Fariq) among Rufaa al hoi of the Sudan (who are based on descent and led by a sheikh); and the minimal lineages of the camp clusters of the Baluch of Pakistan ⁽¹¹¹⁾.

Tapper also identifies a higher level of community, which corresponds to the primary reference groups and may include settled as well as unsettled elements. This community is usually above the level of shuffling, fission, fusion and structural changes. It exhibits, furthermore, considerable historical continuity. Tapper speculates that the latter community constitutes the tribe, while the former level of community refers to the lineage based camp. ⁽¹¹²⁾

The above demonstrates how anthropologists are unwilling, or unable, at present to generalise about the nomadic communities of the contemporary

world, even when they are focussing on a single region. The reason is not only the wide variety of social structures among nomadic societies, but also that anthropologists have not yet agreed on the structural importance of each level of integration, nor the terminology appropriate for each (113).

While discussing the political stratification among pastoral nomads in 1979, William Irons offered a hypothesis in which he linked the political organisation of the nomads to outside political threats, population density, mobility and the existence of an encapsulating nation-state. His thesis runs as follows:

- 1 In the absence of serious external threat, pastoral nomads are unlikely to develop segmentary lineage systems or stratified politics. Instead, relatively small political units are to be expected. These will be equalitarian in organisation, and shifting in composition as individuals migrate either for economic reasons, or to evade conflict. Some East African and Arctic nomadic groups appear to fit this pattern. (114)

- 2 In a situation of low population density, high mobility and the need to form large groups for military purposes, the segmentary lineage system seems to be the ideal answer for the nomadic political structures. This is because it allows the temporary formation of large defensive groups, while maintaining small face to face residential units. Internal conflict in such societies is usually resolved by relocating, or is only tolerated for short periods (when uniting for military purposes). Despite the existence of chiefly

authority, such societies are unstratified. The examples Irons give for such societies are: the Turkmen of Iran, the Kazakh, the Somali and some bedouin nomads. (115)

3 In a situation of high population density and low mobility, a segmentary lineage system is less satisfactory because: a) residence groups are larger, which means more contact and conflict among individuals distantly related; and b) the low mobility characteristic does not allow for relocating or flight from conflict. In such situations institutionalised authority becomes much more of a pressing need, especially when external threats exist. Stratification, for such societies, is a solution to the maintenance of internal and external peace. It is much more likely when the stratified institutions can also serve other functions as well (i.e. economic redistribution, or large organised productive activities). Hence stratified nomadic societies maintain segmentation in the structure of the administrative organisation. (116)

4 Nomadic groups who are encapsulated within state societies are by definition stratified, because they can take on the form of organisation dictated by the state. The variance in such cases is whether or not the state retains the pre-existing indigenous institutions or not. When the state uses tribal chiefs, they act as intermediaries and are usually institutionalised within the system. Most nomadic societies are encapsulated with wider political structures at present (117).

Despite the attractiveness of Irons' hypothesis, not all nomadic case studies agree with certain elements of it. This is because he places a great deal of emphasis on mobility and population density. For example, Sweet has described the camel herders of the Arabian sub-type of pastoralism as having a differentiated segmentary system (118). This is so because their high mobility (due to their dependence on camels) and their need to control large expanses of grazing territory have dictated the need for fairly large social units with elements of institutionalised and sometimes even centralised power structures (119). The Rawala bedouins of North Arabia are a case in point, because they were able at the end of the nineteenth century to establish a powerful state, after they seized control of a considerable part of the Hadj trade and organisation. (120)

The Tuareg bedouins of North Africa are another example of stratification among camel herding pastoralists. Indeed, the types of stratification found among them include: the noble camel herding tribe, sheep herding vassal tribes, a semi-serf agricultural population, and even slaves. (121) The bedouins of Arabia and North Africa, moreover, exist in regions of low population, so stratification in their case cannot be due to low mobility or high population pressures.

Khazanov explains the variance in stratification and differentiation as being the result of contact with external factors. He talks about undifferentiated, differentiated and stratified segmentary systems. The undifferentiated are fairly isolated societies closely resembling the classical example of a segmentary lineage system, headed by Sheikhs but with no marked social differentiation. However, they can hardly be called equalitarian (e.g. the Berber pastoralists and the bedouins of Cyrenaica). (122) By contrast, differentiated segmentary societies

are ones with a fair amount of outside contact. In such societies there is no balanced opposition between groups. They are differentiated according to strength, numbers and leadership. The leaders of the tribe are also given significant privileges, like the right to best pastures, a larger proportion of all revenues to the tribe, and a percentage of military spoils, even when they have not been present during the raids. Thirdly, stratified segmentary societies are ones in which the political differentiation had been consolidated, institutionalised and centralised. This only happens when the tribal leadership become linked to strong external forces, which supports their internal position within their society, or prevents further changes (i.e. a great external danger, outside revenues, or support from neighbouring state structures). (123)

Khazanov characterises the majority of nomads and semi-nomads in the Near East (the bedouins of Arabia, the nomads of North Africa, and all arabized nomads), as having been in the past differentiated segmentary systems, led by hereditary leaders of certain lineages, with stratified social structures. (124) In any case, the former analysis relates to conditions when the nomadic groups existed in relatively less integrated societies. The nomads of the present in the Middle East are all part of nation states, with varying degrees of economic integration with the encapsulating state. They, therefore, can only be described as stratified.

5) Pastoral Nomadism, Other Definitions

Lefebure's definition at the beginning of this section was used to emphasize what anthropologists have classically seen as distinctive and very important features of the nomadic societies. These elements are:

a) the autonomy of the productive unit, b) the collective ownership of resources, c) mobility, and d) subsistence based animal husbandry. These four attributes have been used time and again to depict nomads as being of a particularly distinctive nature, which is either prior to sedentary agriculture or in polar opposition to it. Such depictions include economic and political independence, egalitarianism, a distinctive social formation (or mode of production), an association with stateless societies, and a cultural and ideological specificity.

Hopefully, the above discussion of some relevant anthropological contributions allows us not to identify pastoral nomadism with any particular stage of social formation, any one political organisation, or any particular cultural trait. This is especially true of the societies of the Middle East, when nomads integrate politically, economically and culturally more often than not. This of course does not negate the distinctive nature of pastoral nomadism as an economic activity, nor the importance of mobility and subsistence animal husbandry in the social organisations of the nomads. This stance only allows us to look at each case specifically, with a vision unimpaired by unfounded generalisation.

Two other broad definitions are possible for pastoral nomadism: one presented by Salzman in 1980, and another by Khazanov in 1984. The first states that nomadism is the "movement of the household during the annual round of productive activities", ⁽¹²⁵⁾ which limits nomadism to central activities rather than marginal or recreational ones. These productive activities, however, are left unspecified; because Salzman believes it is most useful not to define the economic activities, way of life, social and political organisations, or cultural characteristics by fiat, but rather to establish them by means of

empirical observation. This reflects Salzman's theoretical stance that nomadic societies (like all societies) are fluid and variable, loosely integrated, flexible and adaptable. ⁽¹²⁶⁾ This means that all changes and developments are mostly forms of adaptation and response to the existing conditions and the available alternatives ⁽¹²⁷⁾ (this will be discussed more fully below). In this way Salzman leaves room for all non-pastoral activities which could be fitted within the social organisation of the nomads - like cultivation or wage labour - which may even lead to reduced mobility.

Khazanov is less broad in his definition, but still leaves room for variation in political and social structures. He defines pastoral nomadism as:

"A distinct form of food-producing economy in which extensive mobile pastoralism is the predominant activity, and in which the majority of the population is drawn into periodic pastoral migration". ⁽¹²⁸⁾

Khazanov in his definition stresses food production as opposed to food extraction (as in hunter and gatherer societies). He also emphasises periodic mobility (rather than constant movement), and the involvement of the majority of the population (as opposed to specialist herders and ranchers) in pastoralist activities.

Neither of the above two definitions specifies a subsistence economy for pastoral nomadism. This is because there is a general acceptance that this last characteristic was generally true of the nomads of the past, but cannot be said to exist for all pastoralists at present, who could have been drawn into the world market system.

The latter definition is perhaps more appropriate to the understanding of pastoral nomadism proper, without deflecting attention from the varieties of economic, political and social integration exhibited by the nomadic people. By contrast, the former only lays stress on the 'movement' aspect of nomadism, and not the animal husbandry aspect. In this way Salzman's definition seems to be more suited to the study of sedentarisation and the reduction of movement, which is in any case the context in which the definition is suggested.

II The Sedentarisation Process

The process of change that affects the nomadic groups through sedentarisation is often perceived in accordance with the way nomadism as a system is conceptualised and perceived. Hence, for some, sedentarisation is a change from an earlier socio-political formation to a later one. (130) Some view it as a radical cultural and social transformation, creating what might be termed as 'the sedentarisation problem', for modern states and their development policies. (131) Others view it as a form of adaptation to outside resources and/or opportunities, as well as to ecological, political and economic factors (discussed below).

There has not been a great deal of anthropological literature specifically about the process of sedentarisation in general. (134) This is not to say that the settlement of nomads has not occupied a prominent position in the minds of developers, governmental consultants and academic writers of all persuasions. The twentieth century has seen a tremendous increase in the desire for the settlement of nomads. Governments, policy makers, development planners, and economists have

been, in the majority of cases, consistently seeking to settle the nomads, as they seek political stability, economic development, and national progress.

The agents of change in most national settings have tended to regard the nomads according to the least informed images. So nomads are seen as irrational, destructive, backward and a danger to the national cohesion of the society. The nomadic population, aware of and accustomed to such treatment, tended to frustrate and resist the programmes formulated for their settlement ⁽¹³³⁾. Such happenings have caught the attention of writers of different backgrounds, and the 'sedentarisation' and 'nomads' problem became a familiar subject from writers with varying degrees of involvement with the problem.

Settlement of the nomads, moreover, as an empirical phenomenon has also received a great deal of attention, particularly in areas where pastoral nomadism is prevalent - like the countries of the Middle East, Mongolia and parts of Africa. These settlement processes have been either seen as a progressive feature of the country's development efforts, or as political ploys by national governments to subdue their nomadic population. ⁽¹³⁴⁾

1) Sedentarisation as a Forced Process

There are three models for the sedentarisation process, which have been elaborated by Frederick Barth in his account of the Basseri of South Persia ⁽¹³⁵⁾. These models correspond to anthropological and historical accounts of the settlement of nomadic groups at different times. All emphasise the forced nature of the sedentarisation process. They are as follows:

1 Drought and Decline In this model, the nomadic people are seen as extremely vulnerable to adverse climatic conditions, or the spread of diseases. The loss of animals (due to extreme conditions of drought, and loss of pastures) leaves the nomads without their economic base (animal herds), which in turn leads them to settle in agricultural villages. This process has frequently been seen in arid zones, and it is dramatically illustrated by the great Saharan and Sahelian drought of the early and middle 1970s. This drought resulted in the displacement of nomadic groups throughout Africa. For example, the Tuareg bedouins are now living in agricultural oases without any of the necessary resources to return to pastoralism, while the Somali nomads work in fishing co-operatives on the coast at present.

2 The Defeat and Degradation Model This model has two versions. In the first, pastoral people are defeated militarily and forced out of nomadism in the process of internal conflict and competition over scarce pastoral resources. The tribe that is victorious takes control of the territory, and the vanquished tribe has no option but to retreat from nomadism.

The second version is that governments systematically pursue the settlement of the nomad tribes in their territories, in order to remove the military threat associated with their mobility and social structure. This process has been recorded by various anthropologists in some of the Middle Eastern countries, like Bates on Turkey and Irons on Iran. It is also a current theme for policy makers of the third

world, who seek 'national integration' through settling and 'pacifying' their tribal groups (e.g. most Arab countries).

- 3) The Failure and Fall Away Model In this model, individual pastoralists who are unsuccessful in building a viable household productive unit, and who can not support themselves, 'drop out' of the pastoral sector. They may take their families into sedentary agriculture, or join the employment market. A converse model is that of 'succeed and surpass', which states that the extraordinarily successful pastoralists, with large herds, are not able to properly supervise them while in movement. Such individuals, therefore, prefer to convert their capital into fixed assets (land usually) to reduce the insecurity associated with livestock herding.

This 'shaking down' of the pastoral population keeps the balance between the static pastures and the expanding human population, as well as the alleged productive homogeneity among nomadic groups. So in this model there are two types of 'drop outs': the ones who 'go under' (poor pastoralists) and the ones who 'go over' (rich landowning pastoralists). This model has been used repeatedly by anthropologists seeking to explain the nature of nomadic societies as well as the sedentarisation process (Lefebure, Dahl, Swidler).

2) Sedentarisation as an Adaptive Process

All three sedentarisation models have been criticised by Salzman, (131) on three grounds:

- A) They seem to be potentially relevant for a particular kind of nomadic society, namely those which are highly individuated and have a low level of corporateness and few mutual support structures (i.e weak tribes). Not all nomadic societies are so structured, and as a consequence they do not exhibit this kind of sedentarisation.
- B) The models seem to imply that sedentarisation is both irreversible and absolute. Such assumptions are not warranted by the factors inducing the settlement, nor are they supported by empirical data. Salzman points out that the ecological conditions are obviously changeable, so a bad year may be followed by a good year. Similarly, a military defeat might only be a temporary setback, because the strengths of tribal groups and central government may wane. Salzman also reminds us that some nomadic groups who were forcibly settled reverted to nomadism as soon as the political pressure was lifted (e.g. the Turkmen of North Eastern Iran). (137) Furthermore, some of the nomads who 'drop out', because of a period of economic setback are only 'nomads on the waiting list' as they were described by Nader Nadiivi. (138)
- C) Salzman also rejects the notion that an agricultural livelihood is opposed to a pastoralist one. He notes that "the shift between nomadism and sedentarism, and between pastoralism and agriculture, as a current circumstance and set of activities, is in many respects not such an absolute break." (139) He stressed that pastoralists often practise agriculture, and that they often retain their tribal identity

and the nomadic ideology even in settled conditions (140). These elements often facilitate the nomad's continued incorporation within his group, his access to the tribal resources, and his return to pastoralism if he wishes.

The above considerations prompted Salzman to propose a fourth model in addition to the three mentioned above. This model he labelled "adaptation and response" and he described it as follows:

"Sedentarisation is seen not so much as a forced, coerced, unavoidable process, to which no conceivable alternative but annihilation could exist, but rather as (in many cases) a voluntary, uncoerced shift from one available pattern to another in response to changing pressures, constraints and opportunities both internal and external to societies" (141)

The "adaptation and response" model stresses "the options available to actors and the institutionalised resources that largely define the options that make them possible". (142) This view of the sedentarisation process is relevant in so far as it accounts for many modes of integration and adaptation that nomadic groups have exhibited, both historically and in the contemporary world. It does not attempt, however, to qualify the changes affecting the nomads through sedentarisation, nor specify the activities taken over by nomadic groups (combined or single). The three previous models seemed to largely stress: i) conflict situations faced by the nomads, and ii) a transferal to an agricultural economy.

Although Salzman does not reject the three previous models, he seems to have a markedly different view of the sedentarisation process, and of

nomadic societies. In fact he advocates a conception of all societies not as strongly determined and invariant, as having a clear, unalloyed nature, but as "fluid and variable, as being loosely integrated, flexible and adaptable". (143) The features bringing the fluidity to society are according to Salzman the "institutionalised alternatives" in every society. These alternatives allow people to move from one activity to another, from one organisational form to another, and from one available system to another, without being buffeted by irresistible forces.

In non-industrial societies, Salzman sees such alternative as being institutionalised through three means: (144)

- A) A deviant minority: For example a cult group, which maintain an organisation and an ideology quite different from that of the society.
- B) Operational generalisation: This means the existence of a variety of ongoing activities, common among all the population and sometimes combined in the same household. An example would be a multi-resource economy, where everybody is engaged in several productive activities at the same time.
- C) An asserted ideology: An organisational framework held and expressed by all members of the society, which is sometimes acted upon and sometimes not. An example forwarded by Salzman is the segmentary lineage ideology, which is sometimes (but not always) put into practice.

Through this conceptualisation of society, the sedentarisation process

is seen as having a large voluntary component, which makes use of societal resources in the form of institutionalised alternatives. Hence individuals when undergoing the process of of sedentarisation are only making a shift between alternative behavioural patterns, organisational forms, and ideologies, which are in some degree already institutionalised and available to them. (145)

Salzman's hypothesis on social structures seems to spring from the need to represent the sedentarisation process as not always being rigid, absolute and irreversible. Yet in so doing he seems to have lost the ability to account for situations of conflict and contradictions, which according to Salzman himself are real situations, often visited upon large numbers of nomads (146) (When settlement is a forced process). In a society of the kind described by Salzman, conflicts and contradictions do not have a prominent place.

3) Sedentarisation as an Attribute of Pastoral Nomadism

As was seen in the previous section, Khazanov believes that nomadism is not an autarkic productive system. The reason behind this conceptualisation is that nomadism as an economic adaptation is subject to more limitations than other economic systems. These limitations include the following:

- 1) A limited possibility for innovation: Pastoral nomadic groups are characterised by strict specialisation because each ecological zone is usually associated with certain types of animals. This specialization until recently was practised within the framework of the social structures of the nomads (i.e. subsistence and absence of technological advances),

which gave little scope for innovation and progressive development. This simply forced the nomads to reproduce the same highly specialised forms of production with no modification. (This is not the case for a modern pastoral economy). (147)

- 2) The delicate balance between the nomadic population, the animal population, and the natural resources (grass and water) means that: a) the nomads are constrained from the intensification of the productive cycle for fear of upsetting this balance, and b) they are often subject to climatic fluctuation and pulsations (sic) of different durations, which render them unable to depend fully on the natural resources at their disposal at different periods. (148)
- 3) Pastoral nomads are also subject to severe natural disasters like prolonged droughts and epidemics, which are capable of breaking up the whole structure of pastoral nomadism and destroying whole communities. (149)
- 4) Most nomads are not autarkic, in the sense that they are dependent on agricultural products and handicraft goods from villages and urban centres. Pure nomadic specialisation does not allow for the development of the skills needed for such necessary items. (150)

The above simplified version of Khazanov's argument led him to speculate that economic stability and non-autarky can be considered as almost indispensable attributes of a pastoral nomadic economy. This leads nomads to choose between two alternative ways of overcoming them:

firstly by sedentarisation, and secondly through the acquisition of the needed product from neighbouring societies by different methods. (151)

The above shows that Khazanov sees sedentarisation as a necessary adaptive process, which is practised by nomads not only for economic reasons (outlined above), but also because of political and social reasons. This is due to the fact that contact with the outside world is a necessary and inevitable characteristic of pastoral nomadism.

This conceptualisation of the sedentarisation process seems to combine both the three early models of sedentarisation (drought and decline, defeat and degradation, and failure and fall away) as well as the fourth one proposed by Salzman (adaptation and response). This is mainly due to the emphasis on the nature of nomadism as an unstable economic system with an essential characteristic of constant adaptation to internal changes, as well as outside elements. This basically creates situations for the nomads, when they are either naturally disposed towards sedentarisation, or forced to sedentarise because of ecological or political reasons.

4) Some Patterns of Nomad Integration

Nina Swidler has sketched three possible modes of nomad integration within sedentary societies in the Middle East (152) These patterns are as follows:

- 1) Dichotomized Economies: The nomadic communities of this type cannot combine pastoral activities with cultivation or wage work; the reason being that land right is either severely restricted (to the pastoralist), or highly valued (for

agricultural production). Land is therefore only available through sharecropping, rental periods, or purchase. For such nomadic communities, the adaptational process initiates accelerated pressures predisposing them for sedentarisation.

For example, a wealthy Basseri nomad in Southern Iran (with a limited land right) may over time convert his pastoral resources into privately owned land. This in turn leads to accelerated affluence, which further increases the nomad's land investment. This eventually results in the total abandonment of the pastoral economy. On the other hand, pastoralists with insufficient animal holdings "bottom out", usually becoming tenant cultivators.

Another example of such dichotomised economies is seen among the Yoruk of South eastern Turkey. Due to their lack of tribal estate, the Yoruk usually rented lands, for which they paid in cash. This involved them constantly in monetarised and market transactions, which distance them greatly from the classical picture of nomadic production. Dichotomised economies are further associated with strong central authority, in which land is highly valued.

- 2) Mixed Economies: These societies combine pastoral and agrarian activities, both at the household and at the community level. The degree of commitment to one or the other of the subsystems is highly variable. Such economies, furthermore, develop in regions where there are low population density or weak penetration by central authority, and/or where market integration is underdeveloped.

Mixed economies may either show an impressive capacity for productive growth, or appear to be self limiting. The reasons are associated with minimal conflict in the behavioural requirements of each subsystem in the former case, or the incompatibility of subsystem demands in the latter. Most importantly, however, the growth and development capacity of such economies is influenced by the regional economic and political factors that define land values and structure the available options. For example, land may be undervalued because its agricultural productive capacity is underexploited. In such cases the predominantly subsistence pastoral community is content to practise simple agriculture, by obtaining and sowing seeds and relying on seasonal rains. Once an initial step is taken toward irrigated agriculture (in order to stabilize the agricultural produce), the whole structure of the agricultural activities may change. This is because the agricultural yield may be of marketable quality, which plunges the community into a totally different social structure and different commitment to the agricultural subsystem.

Mixed economies are also associated with highly variable animal holdings. Prosperity in the agrarian sector, furthermore, tends to be accompanied by larger flocks, but smaller herds can be kept by less prosperous families using available household labour. N. Swidler listed as examples of such mixed economies the Sarhad Baluch of Iran ⁽¹⁵³⁾, who were studied by Salzman in the early stages of sedentarisation. The Baluch nomads resorted to cultivation after the suppression of raiding in 1928, and combined the

two subsystems with wage labour in the 1970s. Another example is the Brahui trashumants of Baluchistan ⁽¹⁵⁴⁾ (West Pakistan), who have a habitat composed of two ecological zones: the mountainous highlands of Sarawan and the Jhalawan, and the flat plain of Kachhi. Each of the Brahui tribal units collectively owns scattered holdings in the two ecological zones, which are never contiguous strips incorporating both altitudinal zones.

Every tribal unit of the Brahui displays a wide range of adaptational patterns. These may be fully settled irrigation villages, transhumant villages combining agriculture with pastoralism, or pure pastoral nomadic units. The transhumants of the Brahui cultivate in their highland villages from March to November, and then take their animals to the lowlands during the cold months. They, therefore, enter each zone at its most productive time. The considerable advantages of such a mixed economy have led to an impressive potential for development, with the communities embarking on technological improvements in the agricultural sector of their economy in the 1960s. This prompted Nina Swidler to predict that they could become fully settled, while hiring professional shepherds for herding, if they cannot supply the labour needed.

- 3) Intersecting Economies: These are nomadic communities which combine wage labour with a pastoral economy. The nomads provide temporary labour in the sedentary sector at peak periods in the agricultural cycle, which gives them the cash necessary to maintain a pastoral existence, even when their

animal holdings are below subsistence levels. Such adaptation interrupts the downward spiral for poor nomads, and allows them to maintain their memberships in camp groups. An example of such adaptation would be the nomadic groups of the White Nile District of the Sudan (155), who provide the labour needed for cotton picking from January to March, which is also the low labour demand period of the pastoral cycle. The wages obtained are used to build up the nomad's herds, which eventually allow the pastoralist to abandon temporary agricultural work.

5) An Overview

Two themes are apparent in the above discussion of the sedentarisation processes among nomads. The first deals with the nature of nomad settlement, and the forced versus adaptive component in the process. The early models of the sedentarisation process viewed it as mainly due to factors that are mostly forced on the individual nomad (drought, decline, defeat, degradation and failure). Underlying this view are a number of assumptions about pastoral nomadism, which emphasise its distinctive nature (as an early social formation, or as being directly opposed to sedentary agriculture). So sedentarisation in this case is either an absolute evolutionary change, or a process fraught with social, ecological and psychological difficulties. The need to view the process as adaptive became apparent to those observing the variations of ways nomads seem to be engaged in agriculture and integrated within their regional surroundings. This is how the adaptive model of sedentarisation was added to the previous three. It became, however, the complete opposite of the other three, in so far as it emphasised the voluntary, uncoerced nature of the sedentarisation

process.

It is perhaps unprofitable to think in such stark terms about the different ways that nomads undergo settlement, because in every situation of sedentarisation - voluntary and forced - there is an element of adaptation. This is true for ecological disasters, political defeats and economic instabilities. On the other hand, the nomads who are incorporated and integrated within a regional or a national system are faced with economic and power relations that structure their responses, even when they seemingly react in a totally voluntary adaptive way. Take for example the differences between the land policies in the above discussions of the dichotomised economies and the mixed economies. Land value and land policies determined the choices that nomads face, and the prospects they look forward to. Similarly, the nomads of the White Nile of Sudan, as a group, are well defined in their regional economic surroundings (a subsistence group, providing occasional labour), even when they appear to be working in perfect harmony with the sedentary agriculturalists.

This is basically why Khazanov's view of the sedentarisation process as one way for the nomads to adapt to their inherent economic instability, as well as their contact and need for the outside world, seems to be more appropriate at the present time. This view accounts for the settlements resulting from the disintegration of the nomadic economy (ecological disasters or poverty), as well as the sedentarisation processes due to the nomads' incorporation within national settings. This is more significant today than it has been historically, because nomadic socio-economic structures seem to have acquired a subordinate position to the institutionalised power and economic structures. This is why most of the sedentarisation processes of the present time

reflect rapidly weakening pastoral economies.

The second theme in the study of sedentarisation processes is concerned with the different scenarios of the quality of change affecting the nomads (individually and in groups). Hence we may expect that nomadic groups either exchange their subsistence pastoralism for another subsistence economy - i.e. peasant agriculture - or perhaps add on subsistence farming to a modified version of pastoralism. On the other hand, the quality of change may be more drastic in the sense that individual pastoralists, or even groups of pastoralists, may enter a modern surplus producing economy (as producers or wage labour). The varieties of integration are numerous, because such factors are dependent on the regional economy and the national setting of the nomadic groups. Focussing on this aspect of the sedentarisation process is very useful, for it directs attention away from the mobility aspect - a secondary attribute of nomadism - to the socio-economic structure, which is the most important fact of any social system.

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- 51) Barth F, "A General Perspective on Nomad-Sedentary Relations", in Nelson, C (ed), The Desert and the Sown, op. cit, P. 11.
- 52) Ibid, P. 12.
- 53) Ibid, P. 12 - 13
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- 58) Dahl, G, "Ecology and Equality: The Boran Case", in Pastoral Production and Society, op. cit, P. 261.
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- 68) Ibid, P. 8-9.
- 69) See for example, Spooner, B, "The Status of Nomadism as a Cultural Phenomenon in the Middle East", in Irons, W. and Dyson-Hudson, N (eds), Perspectives on Nomadism, op. cit, P. 122. Spooner suggests that nomadism should be treated as a "cultural ecology" characterised by a lack of interest in fixed resources and fixed property.
- 70) Tapper, R, "The Organisation of Nomadic Communities", in Pastoral Production and Society, op. cit, P. 45.
- 71) Ibid.
- 72) Both terms are quoted from Dahl, G, "Ecology and Equality: The Boran Case", in Pastoral Production and Society, op. cit, P. 262. In this paper Dahl quotes Maurice Godelier, who had criticised many researchers on pastoralism as being exaggeratedly preoccupied with ecology. Dahl proceeds to defend the ecology perspective in the case of pastoral nomadism.
- 73) Ibid, P. 262 - 263.
- 74) Asad T, "Equality in Nomadic Social Systems?", in Pastoral Production and Society, op. cit, P. 420.
- 75) Irons, W, "Political Stratification Among Pastoral Nomads", in Pastoral Production and Society, op. cit, P. 362.
- 76) Ibid.
- 77) Khazanov, A, op. cit, P. 123. Khazanov's thesis involves fusing historical material, theoretical thinking, and contemporary knowledge into one whole. His two arguments are: A) the existence and functioning of pastoral nomadism is fundamentally dependent on the outside world, and the specific relationships between nomads and sedentaries. B) Nomadic societies do not follow one form of development towards a consistent end, but rather a variety of patterns with a tendency for repetitive and circular developments. This work only uses parts of Khazanov's arguments.

- 78) Ibid, P. 191-192.
- 79) Ibid, P, 193
- 80) Barth, F., "A General Perspective on Nomad Sedentary Relations in the Middle East", in *The Desert and The Sown*, op. cit, P. 17.
- 81) Asad, T, "Equality in Nomadic Social Systems", in *Pastoral Production and Society*, op. cit, P. 420.
- 82) Ibid.
- 83) Pierre Bonte's work is referred to by Khazanov and other anthropologists, especially the 1974 article "Organisation Economique et Sociale des Pasteurs d'Afrique Orientale," *Les Cahiers du CERM*, No 110, *Études sur les Societies de Pasteurs nomades*.
- 84) Khazanov, A, op. cit, P. 195.
- 85) Ibid, A, P. 146.
- 86) Asad, T, "Equality in Nomadic Social Systems?", in *Pastoral Production and Society*, op. cit, P. 421.
- 87) Ibid.
- 88) Ibid, P. 424
- 89) Ibid.
- 90) Ibid, P. 426.
- 91) Khazanov, op. cit, P. 197.
- 92) See Bates, D, *Nomads and Farmers: A Study of the Yoruk of South Eastern Turkey*, Museum of Anthropology, University of Michigan, Anthropological papers N. 52, 1973. Also Arfa, H, *Under Five Shahs*, John Murray, 1964.
- 93) Some nomad settlement projects and a brief description of each are listed in Ebrahim, M, "Problems of Nomad Settlement in the Middle East with Special Reference to Saudi Arabia and the Harath Project", Ph.D thesis, Cornell University, 1981, P. 81 - 84.
- 94) See for example Lattimore, O, *Nomads and Commissars, Mongolia Revisited*, Oxford University Press, 1962.
- 95) See for example the introductory pages to Nelson, C, (ed) *The Desert and the Sown*, Regents of the University of California, 1973. Also Tapper, R, "The Organisation of Nomadic Communities," in *Pastoral Societies of the Middle East*, op. cit, P. 43. Also introductory pages to Salzman, P. (ed), *When Nomads Settle*, Bergin Publishers, 1980.
- 96) Ibid. See the regions studied by the contributors.
- 97) Khazanov, A., op. cit, P. 39 - 61.

- 98) Nelson, C, "Preface", in Nelson, C (ed), The Desert and the Sown, op. cit, P. V.
- 99) Gellner, E, "Introduction: Approaches to Nomadism", in Nelson, C (ed), the Desert and the Sown, op. cit, P. 2.
- 100) Ibid, 1 -3.
- 101) Swidler, W, "Adaptive Processes Regulating Nomad-Sedentary Interaction in the Middle East", in Nelson, C (ed), The Desert and the Sown, op cit, P. 23.
- 102) Khazanov, A, op. cit, P. 53 - 59.
- 103) Ibid, P. 179.
- 104) Ibid, P. 56.
- 105) Ibid, P. 55-56
- 106) Barth, F, "A General Perspective on Nomad Sedentary Relations", in Nelson, C (ed), The Desert and the Sown, op. cit, P. 18.
- 107) See Tapper, R. "The Social Organisation of Nomadic Communities", in Pastoral Production and Society, op. cit, P. 362. Also Khazanov A, op. cit, P. 131.
- 108) Khazanov, A, op. cit, P. 126.
- 109) Ibid, P. 131.
- 110) Tapper, R, "The Social Organisation of Nomadic Communities", in Pastoral Production and Society, op. cit, P. 49.
- 111) Ibid, P. 52 - 57.
- 112) Ibid, P. 61 - 62.
- 113) See Tapper's discussion of the different anthropological accounts of nomadic communities in "The Social Organisation of Nomadic Communities", op. cit, P. 45 - 49. Also Khazanov, A, op. cit, P. 126 - 138.
- 114) Irons, W, "Political Stratification Among Pastoral Nomads", in Pastoral Production and Society, op. cit, P. 370.
- 115) Ibid, P. 369.
- 116) Ibid, P. 370.
- 117) Ibid, P. 371.
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- 119) Khazanov, A, op. cit, P. 179.
- 120) Marx, E, op. cit, P. 349.

- 121) Khazanov, A, op. cit, P. 181.
- 122) Ibid, P. 182 - 183.
- 123) Ibid, P. 180 - 184.
- 124) Ibid, P. 181.
- 125) Salzman, P, "Introduction", in Salzman, P (ed), When Nomads Settle, J F Bergin Publishers, 1980, P. 10.
- 126) Ibid, P. 4.
- 127) Ibid.
- 128) Khazanov, A, op. cit, P. 17.
- 129) Ibid, P. 16.
- 130) See for example, Sahlin S, M, and Service, E (eds), Evolution and Culture, University of Michigan Press, 1960. Also Lefébure, C, "Introduction", in Pastoral Production and Society, op. cit.
- 131) See Awad, M, Nomadism in the Arab Lands of the Middle East, UNESCO, The Problems of the Arid Zone, Proceedings of the Paris Symposium, Arid Research No 18, 1962, P. 325
- 132) Salzman, P, "Preface", in Salzman P, (ed), When Nomads Settle, op cit, P. VII.
- 133) Aronson, R, "Must Nomads Settle?", in Salzman, P (ed), When Nomads Settle, op. cit, P. 80 - 82.
- 134) See Chatty, D, "The Pastoral Family and the Truck", in Salzman, P (ed), When Nomads Settle, Op. Cit, P 80 - 82.
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- 136) Salzman, P, "Introduction", in Salzman, P (ed), When Nomads Settle, op. cit, P 12 - 13.
- 137) Irons, W, "The Yomat Turkmen: A Study of Social Organisation Among a Central Asian Turkic Speaking Population", Museum of Anthropology, University of Michigan, Anthropological paper No 58, 1975.
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- 139) Salzman, P, "Introduction", in Salzman, P (ed), When Nomads Settle, op. cit, P. 13.
- 140) Ibid.

- 141) Ibid, P. 14.
- 142) Ibid.
- 143) Ibid.
- 144) Ibid.
- 145) Ibid.
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- 148) Ibid, P. 71 - 73.
- 149) Ibid. P. 73.
- 150) Ibid. P. 82.
- 151) Ibid.
- 152) Most of the ensuing discussion is based on a reading of Swidler, N, "Sedentarization and the Modes of Economic Integration in the Middle East", in Salzman, P (ed), When Nomads Settle, op. cit, P. 21 - 31.
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- 154) See Swidler, W, "Adaptive Processes Regulating Nomad-Sedentary Interaction in the Middle East", in Nelson, C (ed), The Desert and the Sown, op. cit, P. 23. Also Swidler, N, "Sedentarization and Modes of Economic Integration in the Middle East", in Salzman, P (ed), When Nomads Settle, op. cit, P. 25 - 28.
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Chapter Two

The Bedouins and Their Settlement in Saudi Arabia

Introduction

The final success in the establishment of Saudi Arabia is strongly linked to the Islamic revivalist movement wahabism, and the role it has played in creating the Ikhwan movement and army, which was the first experience of organized nomad settlement in Saudi Arabia. The Ikhwan movement played a major role in the spreading of Ibn-Saud's (King Abdul Aziz, the first monarch of Saudi Arabia) political influence outside Najd, which has been the centre of his political power.

This chapter will first look at the relationship between the state and the tribal structure on the one hand, and the sedentarization of the nomads on the other. In other words, it will explore the curious maintenance of tribalism (in a transformed shape), despite the continued effort by the government to settle the nomads and centralize power.

It will go on to assess the various conceptualization of nomad settlement in Saudi Arabia, as well as describe some of these important processes. The effort will be focused on a critical approach to the available analyses, and not on detailed description of these studies and perspectives. The chapter seeks, by this approach, to create a space in the study of the Saudi bedouin settlement, for some of the recent transformations on the national scene (i.e. the rural development of the 1970s).

Most importantly, however, the chapter develops a theme which distinguish theoretically between the nomad and the bedouin, and also between tribalisms and bedouinism. In developing this theme the

chapter is asking the following questions:

1. Are the early sedentarization programmes and policies a detribalization of the Saudi nomadic population?
2. Has the government pursued a consistent policy of eliminating all the multi-dimensional characteristics of tribalism (i.e. political leadership, economic integration and social identification)?
3. What is the impetus for the detribalization process in the Kingdom (if indeed it exists)? Is it a result of political processes, economic ones, or perhaps a combination of the two?

This theme of inquiry will only be partially answered in this chapter. It will be, however, pursued in the coming chapters of the thesis.

1) Nomads and Bedouins

The majority of the Saudi population is tribally organized. Tribalism, however, have never signified an exclusively nomadic way of life.⁽¹⁾ Early examples of sedentary tribal communities can be seen in the carefully recorded early history of Islam. The Prophet Mohammed (peace be upon him) comes from Meccah, a town inhabited by a particularly powerful tribe (Quraish) who combined commerce and trading with herding activities and some cultivation.

The nomadic tribes of Saudi Arabia, particularly since the Ikhwan movement, can be divided between the predominantly settled to the predominantly semi-nomadic and those who include large nomadic sections.⁽²⁾ The majority of the tribes, however, include sedentary and semi-nomadic sections.⁽³⁾ Very few tribes at present can be said to be predominantly nomadic.⁽⁴⁾ Al-Murrah tribe (the camel herders of the Empty Quarter deserts) are reputed to be the most nomadic in Saudi Arabia. In 1975, however, this tribe included some sedentary sections, and its members were rapidly moving towards sedentarism.⁽⁵⁾

There is a clear and often recorded cultural unity between Saudi pastoral nomads and the majority of the sedentary population.⁽⁶⁾ This unity does not only come from the fact that geneology is a vital critereon for social differentiation, for both groups, but also that they are linked by the common heritage of the Arabic language and culture, as well as the Islamic religion. The nomads of the peninsula, moreover, are linked to the sedentaries at three levels, which have been elaborated by Donald Cole in 1973.⁽⁷⁾ These are the following:

1 The nomads are invariably linked to sedentary villages and settlement areas, within their tribal lands. This practice is an ancient one, whereby a section of the tribe (a lineage) settles in an agricultural settlement and maintains close links with their nomadic kin. The settlement becomes a summer camp for the nomadic section, who enjoy a proportion of the date harvest, while taking care of the animals owned by the sedentary section.⁽⁸⁾ An example of such long established tribal organisation is among Al-Dawasir tribesmen in the southern region of Najid. Most nomadic groups at present have settlements and villages inhabited by their kin, and frequently utilised by them either for permanent settlement, summer camp or as a home base in short distance nomadism. This has become more common since the hujar settlement scheme of the Ikhwan movement, which saw at least 200 settlements created by the Saudi bedouins.⁽⁹⁾

2 A nomadic tribe as a whole is most likely to be involved with a regional urban centre.⁽¹⁰⁾ This integration is not a recent development, but seemed to have been practiced in pre-state times. The relationship of the nomadic tribes to these urban centres is originally social and political.⁽¹¹⁾ For example, Hail in the north of Saudi Arabia is considered to be an urban centre for the Shammar tribe. Most of Hail's inhabitants come from different segments of Shammar, and its leaders before the Saudi centralised state were Al-Rashid, a leading lineage of the Shammar. This traditional relationship also include trading and commercial activities between sedentary and nomadic population, which provide the bedouins with tools and basic provisions like coffee, tea, sugar and other food

supplies.

The relationship between the bedouin and the urban centres have become more vital since the establishment of the Saudi state.⁽¹²⁾ This is because the nomadic bedouin is hardly self-sufficient nowadays, except in activities directly related to herding. He needs the town for social ceremonies (like marriages, divorces), legal services (conflict resolution in Islamic courts), as well as political legitimacy for the tribal leadership and land grants for settlement.

3. In addition to the above relationships imbedded in common decent and the traditional integration between the bedouins and sedentary villages and urban centres, Cole emphasises a third level of integration which is a result of the bedouin becoming a military force for the state since its early beginning.⁽¹³⁾ This began with the Ikhwan movement when most nomadic tribes joined the Jihad (holy war) for the revivalist movement Wahabism and sacrificed a way of life for their beliefs. The Ikhwan Mujahidin (holy warriors) among the bedouins of the 1910s and 1920s, gave way briefly to the white army and subsequently to the National Guard which became one of the most effective military forces of Saudi Arabia. It is mostly composed of bedouins from nomadic groups, and is headed personally by Prince Abdul Allah (the present crown prince), which means that it is mostly independent of bureaucratic administration. It also stands in perfect balance to the army, which is composed of non-bedouins and non-tribal. the National Guard played a very effective role in the

sedentarization process of all bedouin groups, because it became the most frequently sought form of employment outside pastoralism.⁽¹⁴⁾

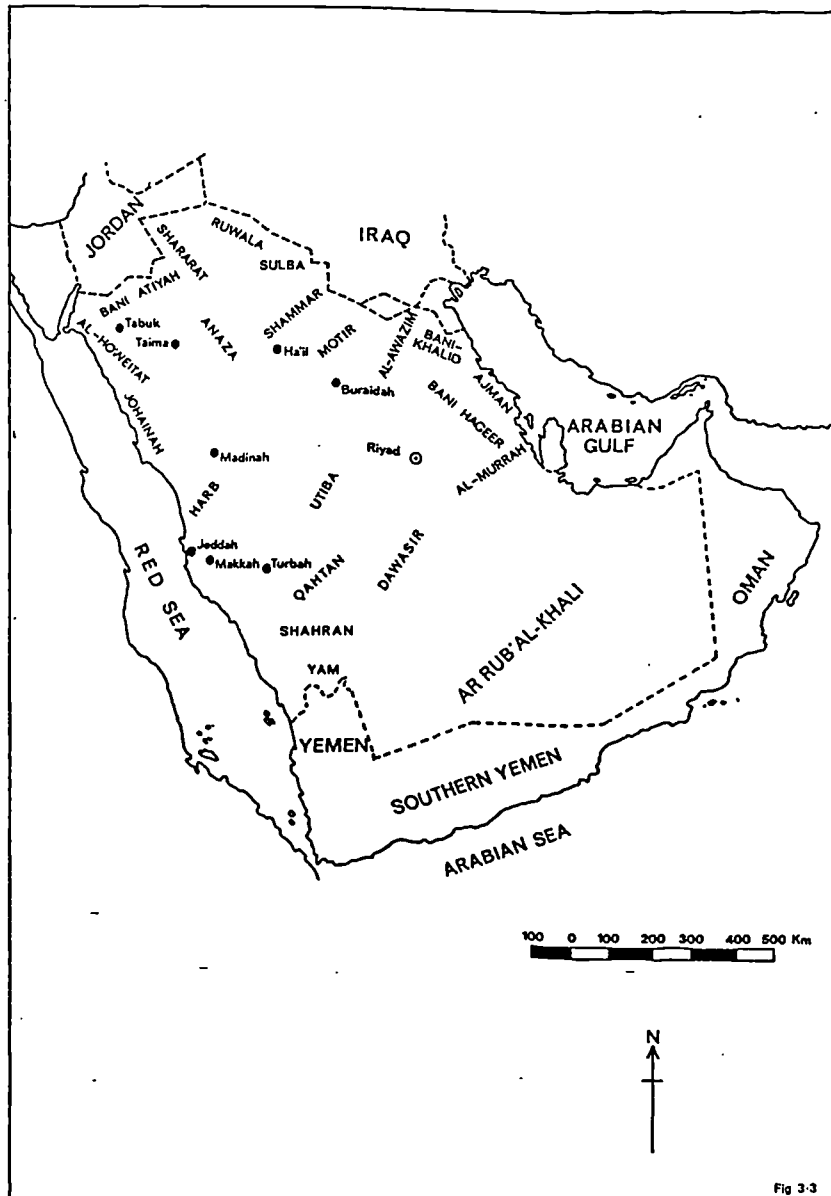
Thirty one Saudi tribes were listed by Mustafa Falalli in 1964.⁽¹⁵⁾ Not all of them, however, are nomadic ones. In fact a report about nomadism in Saudi Arabia in 1965 listed fifteen important nomadic tribes,⁽¹⁶⁾ most of which include sedentary, semi-nomadic and nomadic sections.⁽¹⁷⁾ Each of these tribes is closely linked to a particular area, which is considered their traditional tribal dirah (land), incorporating their grazing grounds and their settlements (see figure 2.1).

The enumeration of the Nomadic sector like most Saudi statistics, has been on the level of estimations and/or unreliable statistics. Falalli's report discussed these difficulties, and the reasons behind them with some detail. He pointed out that the state's officials, prior to his report, had assumed that the bedouin sector amounted to 75 percent of the Saudi population.⁽¹⁸⁾ This wrong estimate was due to the lack of accuracy in the statistical procedure, as well as the tendency of the rural (tribal) administrators to exaggerate the numbers of the inhabitants of their regions.

Falalli's report, which was supported by data from the Department of Statistics, estimated that the nomadic population in 1964 was about one million, approximately 20 percent of the total population.⁽¹⁹⁾ This estimate was widely used until the 1974 census, which estimated the nomadic sector at about 1.9 million⁽²⁰⁾, i.e. over 25 percent of the kingdom's population.

FIGURE 2.1

The Principal Tribes of Saudi Arabia



SOURCE : Hajrah, H., Public Land Distribution in Saudi Arabia
Longman Group, 1982

The sedentarization process, moreover, has been progressing rapidly since the 1950s (the beginning of the seven year drought period affecting the kingdom). This process has been estimated in 1975 as reducing the nomadic population annually by 2 percent⁽²¹⁾. A recent estimate puts the nomads at around 600,000 of all Saudis.

Perhaps one of the factors accounting for the confusion regarding the numbers of nomads in Saudi Arabia is the fact that the term bedouin, which is a derivation from the term al-badawah (nomadic pastoralism) is a term used to describe settled and semi-settled nomadic groups, and not only the nomadic pastoralists. This has been noted in some of the official reports and surveys about the Saudi bedouin, who also advocated that the term be used only for the nomadic individual⁽²²⁾. Nonetheless, the terms continues to be used until the present time for any individual with nomadic background, current or previous.

Perhaps one of the major reasons behind the above tendency is the fact that the division between al-badawah (nomadic pastoralism) and al-hadharah (sedentarism or civilisation) is a deep and ancient division, even though it has been mostly a conceptual one. So even when the nomadic individuals tend to cross the line to sedentarism frequently and easily, they remain deeply entrenched in their previous set identity. Connected to this factor is the strength of the tribal identification among most of the inhabitants of Saudi Arabia, particularly those located in the central region (Najd). So settled and semi settled groups from well known nomadic (i.e bedouin) tribes do not cease to be bedouins when they are undergoing the process of sedentarization, neither to themselves nor to others.

Since the turn of this century, the process of transformation from nomadic pastoralism to sedentary production has been either prolonged or brief depending on the particular circumstances of the nomadic group's settlement. For example the Ikhwan hujar (bedouin settlements: 1912 to the end of the 1920s) were constructed in a remarkably short span of time, and involved a decided effort by the nomads to abandon pastoralism (see below). Other bedouin settlements grew gradually from summer camps to full fledged agriculturally oriented sedentarized communities. The latter settlements involved the bedouins in semi-nomadic, and semi-settled activities for long periods, before any full economic transformation⁽²³⁾

Despite the sometimes great differences between the motivation for settlement and the qualitative nature of the sedentarization process, and even the length of the time that bedouin settlements have been established, all bedouin settlements in Saudi Arabia are called hujar (singular Hijrah). The term hijrah (literally migration) is the term used to describe Prophet Mohammed's (peace be upon him) flight from Meccah to Madinah, when an attempt on his life was organised by the unaccepting inhabitants of Meccah. It symbolises a flight from ignorance to enlightenment, and from polytheism to the Islamic unitarian faith. It was used to describe the settlements established by the Ikhwan nomadic groups, who espoused the Wahabi Islamic revivalist movement and abandoned nomadism for the purpose of spreading it. The term continues to be used at the present time for any recent spontaneously established bedouin settlement as well as for the older ones, both officially and informally.

The above not only signifies the strength of the Wahabi ideological movement, and its influence in the Saudi social life; it

also signifies the strength of identification with particular tribal groupings. So the settlements of the 1920s share with the settlements of the 1970s a particular characteristic, i.e. of being bedouin (inhabited by members and sections of nomadic tribes). Even the settlers in and around urban centres continue to call themselves bedouin and are perceived to be so, even when they have had no or little experience of nomadic pastoralism.

Tribalism as a phenomenon, therefore, should be separated theoretically from Al-Badawah (pastoral nomadism). Tribalism is much more widely spread and entrenched in contemporary Saudi society, while pastoral nomadism seem to be quickly disappearing from the scene as we were told by the available data.

Another distinction must be drawn between bedouinism and pastoral nomadism. Bedouinism signifies current or past involvement in pastoral nomadism. In other words, the membership of the individual of a tribal grouping that has strong association with a nomadic way of life, be it current or recent. Major bedouin (nomadic) tribes are well known within the Saudi context and include Al-Murrah, Utaibah, Harb, Anazah, Shammar, Dawasir to mention only a few. Some of these tribes include hadhar sections as well as whose separation has been long established. For example Shammar, Dawasir and Harb have well established Hadhar urban sections in Hail, Wadi Al-Dawasir, and near Madinah. These long established hadhar tribal sections do not qualify as bedouin groups, although they are associated with the encompassing tribal identity and organisation.

In this work "nomad" as a category will be used to describe those engaged in the economic function of pastoral nomadism, "bedouin" will

be used to describe settled, semi-settled nomads as well as those engaged currently in pastoralism. In other words bedouinism is largely a social category, which has also economic and political features. These features include a closer association with animal husbandry, and with the social organisation of the tribe. So bedouinism stands at the extreme end of the tribal continuum in contemporary Saudi Arabia, because the bedouins are the least integrated within the present economic and social transformations affecting the kingdom's population⁽²⁴⁾. At the other end of the continuum is the urban population with either no tribal affiliation or whose tribal identification is only operative in very specific situations (i.e. marriages, a form of social identification). The latter population within their economic setting can be described as constituting the majority of those engaged in the modern sector (i.e. administrators, commercial interests and skilled educated labour).

The above classification may be challenged by those who emphasise the relationship between tribalism and the economic and social structure of pastoral nomadism. Nonetheless, there is ample justification for such a view point in the Peninsula's specific social formation (see below), and especially for any work attempting a study of the Saudi nomads in a situation of sedentarisation. For example Cole in 1980 talks about the Saudi bedouin nomads, the sedentarized bedouins, as well as the few bedouin merchants and the one bedouin minister whose father is still a bedouin herder.⁽²⁵⁾ Tribal affiliation on the other hand, is wide spread, and is a source of identity and pride for the majority of Saudis.⁽²⁶⁾

2) Tribalism and the Sedentarization Policies

A Tribalism in the traditional formation

As was seen in the previous chapter, the essence of the tribe is a matter that is not totally agreed among social scientists. It is clear, however, that it may represent economic, political and social elements for the people thus organised. In the past, the tribal segmentary system was greatly influential in the political structures of both the nomadic and settled populations of the Peninsula.⁽²⁷⁾ The social status of the tribe was dependent on descent and occupation. Helms elaborates:

"The formation of Social status categories was determined by two factors - descent and occupation - perceived by the tribes as the basis of nobility. Tribes of greatest nobility were those which were acknowledged to be of pure descent, asil or sharif [original or honourable]. They also tended to be larger, more nomadic and militarily independent than other tribes. Among these tribes in Najid were the Harb, Shammar, Al-Dawasir, al-Ujman, Al-Murrah, Mutair, Anza and Utaibah."⁽²⁸⁾

The tribe constituted the basic framework for the individual's social and political and economic activity, particularly within Najd and the interiors of the Peninsula. The tribal structure bound the individual to descent and to the family tree (the Arab's tribal organisation will be discussed in Chapter 3); and its leadership was manifested in particular tribal segments (e.g. Al-Rashid of Shammar and Al-Saud of Anazah). The highest level of co-operation and cohesiveness was

usually obtained in situations of conflict:

"This sense of Tribal Solidarity, *asabiya*, formed a network of mutual obligations among tribal members and with their client tribes that effectively became a form of nationalism"⁽²⁹⁾

It is generally accepted that nomadic tribes could represent the purest and most cohesive of tribal structures. This is because nomadic pastoralism provides a most effective (and conducive) format for economic, political and social independence. This independence, however, is not always obtained by all nomadic tribes. In fact many of the client and weaker tribes have been nomadic ones (e.g. the *Shararat* - the clients of *Shammar*, *Al-Awazim* - clients of *Al-Ujman*, and *Al-Rashaida* - clients of *Mutair*). Sedentary tribes (or sections of tribes), on the other hand, could represent client tribute paying tribes to noble nomadic ones, or even constitute the basis for powerful amirates (e.g. *Al-Saud* of *Anazah* in *Ad-Dariyah*, *Al-Rashaid* of *Shammar* in *Hail* and *Al-Shaalan* of *al-Rawdah* among the settlements of *Wadi Sirhan*).⁽³⁰⁾

Settlement, on the other hand, is associated with the weakening of the cohesiveness and the autonomy of the tribe's political and economic structure. Nonetheless, even in the urban centres of central Arabia, the tribal structure had greatly influenced the social formation of the population. Helms describes how sections (and neighbourhoods) of urban centres are dominated by tribal groupings (e.g. in *Unaizah* and *Riyadh*). Settlements and urban centres, furthermore, keep *hemma* (protected territories) for grazing around their settlement, not unlike the nomadic tribes *dirah*. Even the political leadership of the Amirates is vested, in most cases, in sheikhly families, often

nomadic in origin (e.g. Al-Shaalan of Al-Rawalah, Al-Rashid of Shammar), and sometimes from powerful settled princely families (like Al-Saud of Anazah who had settled in the fifteenth century).⁽³¹⁾

B Tribalism and the new social formation

Considering the strength of the tribal structure in the region until after the turn of this century, and its deeply felt effects on all aspects of the individual's life; it seems sometimes hard to accept that the state which was officially proclaimed in 1932 was formed on a thorough (and eventually successful) detribalization policy, a detribalization that came about through the adoption of the wahabi ideology, the breaking up of tribal loyalties and interrelations, as well as the sedentarization of the nomads. This is a view point that is taken by some of the analysts of the Saudi society. Abdulrahman Said described the detribalization process as starting with the Ikhwan movement and the first experience of planned sedentarization:

"There seems to be near unanimous agreement that the process of detribalization of Saudi Bedouins had started prior to the establishment of the Kingdom in 1932. The major landmark and the real impetus to this process, it is suggested, started with the creation of the settlements (Hujar) of the Ikhwan, begun around 1912."⁽³²⁾

Said, who agrees with this idea, also asserted that the main motivational factor in the early settlements was religion, which weakened tribal relations and authority over the individual.⁽³³⁾ So the more committed the bedouin is to a religious existence, "the less tied he became to previous loyalties and ethos".⁽³⁴⁾ Said sees the

best evidence for this point of view in the division that occurred within tribal groupings during the struggle between the Ikhwan rebels and Ibn Saud. "The defection of many bedouins from the armies of their previous tribal sheikhs in order to join Ibn Saud's army", proves to Said the weakening of tribal relations and the superimposition of the state's authority over tribal leadership.⁽³⁵⁾

The above outlook is adhered to by many of the writers on Saudi Arabia, especially when the sedentarization of the bedouin had been a focus of discussion. For example Al-Fiar sees the sedentarization of the bedouin as a solution to the basic backwardness of nomadism in the face of today's technology and developments.⁽³⁶⁾ This choice (sedentarization) is taken up by the bedouins themselves, as well as encouraged by national states.⁽³⁷⁾ Al-Fiar also views settlement as leading to national integration and detribalization, which are basic ingredients to the development of the rural sector.⁽³⁸⁾ Similarly, M. Asad sees the bedouin sector and tribalism in Saudi Arabia as having been a prime target of the early policies of the Saudi leadership. These policies, he asserts, are desirable to contain the negative characteristics of the bedouin social and economic structures on the nation.⁽³⁹⁾

While this chapter does not wish to negate that there has been a process of detribalization occurring gradually among the Saudi population and bedouins, this process however cannot be seen as originating from the early policies of the Saudi leadership. In fact, the early policies have been utilized exclusively to channel and contain tribalism within a context that is beneficial to the unification of the Kingdom, and supportive of the creation of the

central government. Some factors may be remembered at this point, which could be seen as supportive to the above statement. These are the following:

- a. The state that has been created in the early decades of the twentieth century is not a novel phenomenon in the peninsula. In fact, it is the third attempt by Al-Saud authority for the establishment of a central state in the area, which extend beyond their traditional power base in Najd.⁽⁴⁰⁾ Furthermore, the cornerstone of the support that Ibn-Saud received has been forthcoming from townsmen and the sedentary population, and not merely from the Ikhwan who had abandoned the purely nomadic (and therefore extremely tribal) mode of living.⁽⁴¹⁾ We, therefore, cannot conceive of the state as being established on the destroyed remains of tribalism. In fact, the Ikhwan army has been created with particular attention to the nature of the bedouin, and was used as a military force; a role that could not be played by the sedentary population, no matter how loyal they are to the Saudi leadership.⁽⁴²⁾

- b. The Saudi state has been built on the indigenous and the traditional basis of the unitarian wahabi ideology, and its alliance with a traditional power base (Al-Saud in Ad-Dariyah). Furthermore, it was consolidated and spread through the acceptance of the indigeneous population of the region (nomadic and sedentary tribals). Its continuation was, at first, sought through the support of international foreign powers (i.e. the British in colonial capacity in the Arab states). Subsequently, however, it was assured through the discovery of oil, which gave the state a stable economic

source. This economic stability was instrumental in the continued incorporation of the important sectors of the Saudi population within the confines of the state, and the construction of modern government and economic sectors. These sectors, moreover, were only emerging in the 1950s⁽⁴³⁾ and radically updated in the 1970s (after the oil price increase). We, therefore, must recognize that the traditional basis of the Saudi society and state were predominant until - at the very least - the 1950s, if not later.

- c. Most writers in any case recognize the continued strength of the social elements of tribalism in Modern Saudi Arabia.⁽⁴⁴⁾ This strong social identification manifest itself in the emphasise placed on tribal affiliation, which is operative even in urban centres. Such emphasis is activated for social identification, pride, and in marriage situations (non-tribals are not allowed into marriage with tribals). Furthermore, other writers also emphasise the continued role of tribalism in the political and economic sphere (discussed below). The continued effectiveness of tribalism, moreover, is often noted by those who focus on the study of the rural sector of the Saudi Society. Tribalism in this basically traditional sector is not merely confined to social identification, but could take obvious political and economic importance (also discussed more fully below).

The above represent the general outlook of this study on the issue of the detribalization policy, and the general tendency of equating it with the sedentarization process and the policies adapted to this end. such a narrow viewpoint is highly misleading for it ignores other

salient factors in the Saudi society - namely the nature of the state, the wide spread nature of tribalism among all sectors of the population, as well as the continued traditionalism of the rural sector until very recently. Furthermore, such a tendency implies an equating of tribalism with nomadism, and "detrribalization" with the settlement of the nomads. This is not in keeping with the above description of the social formation in the peninsula prior to the central government, nor to our theoretical understanding of the tribe which extend beyond the nomadic productive system.

This is not to suggest that tribalism in Saudi Arabia has not passed through major changes, and that those changes coupled with the other political and economic development affecting the Saudi Society are not in fact leading to an eventual detrribalization; it is merely to emphasise that we have to look more closely at the quality of these changes, their progress, how they have been effective in the construction of the modern Saudi Society, as well as their relationship to the nomadic sector and the continuing process of sedentarization. In other words, the impetus for the gradual transformation toward detrribalization may not be seen narrowly in sedentarization, but in wide political and economic changes.

C. Tribalism and the Political System

A policy of detrribalization suggests a deliberate policy for the eradication of the political, economic and social aspects of tribalism, by a social structure radically different from the tribal one. This is not the case for Saudi Arabia. Niblock in his discussion of the Saudi political system criticized the approach, frequently utilized by the analysts of Saudi Arabia, which depicts Saudi development as a struggle

between the forces of traditionalism and those of modernism. Niblock, instead, lays emphasis on "the extent to which the old and new are interlinked, with both forces serving common purposes".⁽⁴⁵⁾ He goes on to assert the following:

"These parts of the Social structure which are usually termed 'traditional' have often played a central role in creating a framework within which 'modern' economic development could proceed; and the modernization programmes have often constituted a key element in reinforcing the power of the traditional structures of authority"⁽⁴⁶⁾

He gives the example of the close linkage between the fundamentalist wahabi movement (and its present representatives - the religious ulama) and the formation and continuation of the Saudi political structure, which had responded to the changing conditions of modern times.⁽⁴⁷⁾ He also lays emphasis on the role that the tribal and bedouin leadership played in the creation and the continued existence of the regime through to modern times:

"The role of the tribal leaderships in the state structure between 1926 and 1947 is perhaps the most clear: in return for the subsidies provided by the public treasury and the recognition given by Abd al-Aziz to their leadership and administrative authority within their own areas - actions which strengthened the standing of the leaders among their own tribespeople - the tribal leaders secured and maintained tribal (especially bedouin) loyalty for the regime"⁽⁴⁸⁾

The secured loyalty of the bedouins to the regime (through their

leaders and a network of subsidies) allowed the government to draw them into its military institutions, which in turn strengthened and ensured its position among the Saudi population,⁽⁴⁹⁾ and more particularly the traditional sector.

Abir in a similar emphasis characterized the Saudi political regime as an oligarchy:

"For from being an absolute monarchy, or a desert democracy, the Saudi regime is an oligarchy, whose cornerstone is the principle of consultation and consensus."⁽⁵⁰⁾

Abir, furthermore, specified the pillars of this oligarchy as being the "Saudi royal house, the ulama [religious leadership] and the Umara [tribal leadership]".⁽⁵¹⁾ The position of the tribal leadership in the Saudi political structure is seen by Abir as third in importance after the Royal house of Al-Saud, and the religious ulama.

The tribal Amirs' position of political independence in previous times, have declined as the power and the authority of the Saudi Kingdom and its government were consolidated and its administration expanded.⁽⁵²⁾ Abir describes the process of incorporating the tribal leadership, i.e. 50 senior tribal Amirs and a few hundred sheikhs of secondary tribes and sub tribes⁽⁵³⁾ - as happening since 1930 (the defeat of the Ikhwan), and the increased economic power of Ibn Saud (through the oil revenues):

"Thereafter the Amirs potential to resist the concentration of power in the hands of Al-Saud was literally nullified. Subsequently, when faced with the choice of either integrating

into the Saudi provincial administration and enjoying royal patronage, or resisting Ibn Saud and losing whatever authority was left to them, even the remnants of the Ikhwan leadership opted for the former course. Henceforth, the tribal Amirs became part of the powerbase of the Saudi regime and have a vested interest in its continuity. Together with the royal house and the Ulama they are considered to be a component of the ruling class."⁽⁵⁴⁾

Despite the early incorporation of the tribal Amirs in the political structure, the tribal leadership authority have steadily declined, especially since the reorganization and the strengthening of the central government and the subsequent introduction of the five-year development plans in 1970.⁽⁵⁰⁾ The extension of the government's administrative and welfare services to the provinces, furthermore, began to erode the authority of the provincial Amirs and governors, which were previously the government's sole representatives (between 1930 and the 1960s) among the rural population.⁽⁵⁶⁾ Despite this gradual process of erosion of the authority of tribal Amir's in the provinces and rural districts, the Amirs are still considered the link between the rural population and Al-Sauds, especially since the recent effort (in the 1980s) by King Fahd to strengthen provincial governments and his own relationship with the tribal Amirs.⁽⁵⁷⁾

Helen Lackner, on the other hand, believes that the Saudi political structure has been built on the transformation of the traditional nomadic tribal ideology for political ends:⁽⁵⁸⁾

"The regime's existing political structure, based on family rule with few concessions to western educated technocrats,

could not be maintained without this transformed tribal ideology which, with the addition of religion, gives the regime a legitimacy based on the rewriting of history"⁽⁵⁹⁾

This transformation affecting the traditional values, the assets, has accelerated by the mid-1960 and the 1970s, because the traditional social relations were labouring under the pressures of modern developments and the modernization plans. The newly formed social structures, furthermore, were beginning to emerge slowly and uncertainty in the last decade (1970s) with very little linkage to the traditional existence.⁽⁶⁰⁾

Lackner, furthermore, gave some examples of the manifestation of the transformed tribal ideology and values in the Saudi political and social life.⁽⁶¹⁾ These include:

1. The general assumption that all Saudi's have the right to an official position and a regular government income. This, in her opinion, is an extension of the system of subsidies employed by the Saudi regime.
2. The value of self-sufficiency and independence, which is reflected in the very small percentage of the Saudi individuals receiving welfare benefits (4 per cent). This is seen by Lackner as the converse of the previous tendency, and a value continuous with the bedouin ideology of independence.
3. The wide-spread nepotism, which is seen by the Saudi's as the traditional fundamental duty of any individuals to look after the members of his family and tribe.

4. The confusion created at the political level, which arises from the large number of official and unofficial network of contact with the higher levels of the government and the power structure.

Regardless of whether or not we agree with Lackner's conceptualization of the manifestation of the tribal relationships in the Saudi Society, and their applicability to the Saudi Arabia of the 1980s; her analysis is important in so far that as it lays emphasis on the basic traditionalism of the Saudi Society, until the more recent economic transformation of the 1970s and the 1980s. She also lays stress on the usefulness of maintaining a "political system frozen at a point in the transition between tribal rule and modern political structure"⁽⁶²⁾ in the social setting of Saudi Arabia.

The above discussion, and the various points of view presented above, appear not to be in contradiction with the statement of this study (see B of this section) that tribal relations have maintained a strong position within the Saudi political and social organization until recent times. This position of strength is even more effective within the traditional rural setting, which have only started to experience modern economic transformation in the 1970s and the 1980s. The settlement of the Saudi nomads (which is often undertaken within the rural sector) is, therefore, a process heavily influenced by these same tribal elements within the society at large, and within the relevant political and economic processes (relating to bedouin settlement). The remainder of this chapter will describe this process, within a context emphasising the previous outlook, and the impact and manifestation of the new form of tribalism, as well as the new patterns of productions on the Saudi nomadic population.

3) The Sedentarization of the Saudi Bedouin

Social change for the Saudi bedouin, through sedentarization, social and economic transformations (in the region as well as inside the bedouin sector), have been progressing rather rapidly since the turn of the century. In fact, the early political changes in the Peninsula (i.e. the centralization of power in Al-Saud's hands 1900 - 1932) are invariably linked to a strong current of change among the bedouin nomadic population - i.e. through the adoption of the Islamic Wahabi doctrine and the settlement in agricultural communities. These mainly ideologically motivated transformations served to i) affect major changes to the political and economic cohesive structure of the bedouin tribes, and ii) make the nomadic groups easily manageable and controllable for Ibn Saud (King Abdul-Aziz the first monarch of Saudi Arabia), who is after all the accepted leader of the religious Wahabi movement.

Since the creation of the Ikhwan bedouin army (the wahabi warriors), and its pledge of allegiance to the authority of Ibn-Saud, the bedouin nomadic tribes in the Peninsula have never returned to their previous position of relatively high political and economic independence. This is despite the fact that the Ikhwan leadership have revolted against Ibn Saud (late 1920s) and that the hujar scheme (the Ikhwan settlements) have largely failed in incorporating the bedouins as farmers. The change for the bedouins, furthermore, progressed increasingly rapidly in the 1950s and the 1960s after a period of decline in the previous two decades (1930s and the 1940s). By and large the reasons behind the second burst of change and transformation have been economical rather than ideological; and they included factors

within the nomadic sector and factors outside it.

The first set of factors included a series of droughts in the 1950s and the 1960s which rendered many Saudi nomadic groups impoverished of their economic resources (grazing lands and animals herds), as well as major changes in their relationship to the land resource (through land reforms). The second set of factors included changes in the regional economic setting, which opened many other work possibilities (largely unskilled) to the bedouin groups, as well as various efforts by the Saudi government to incorporate the impoverished nomadic groups into peasant agriculture (but with more modern methods of production).

The literature on the sedentarization of the Saudi bedouin (which deals with the above periods of change) is rather abundant.⁽⁶³⁾ In fact no self respecting work on Saudi Arabia could fail to describe the Ikhwan movements (and its hujar settlements) impact on the social changes of the region at large, or on the bedouins themselves. Other works have dealt with the "modern" agricultural settlement schemes (Wadi Sirhan in the north of Saudi Arabia, and the Haradh settlement scheme in the eastern region). For this reason, this work is not going to take pains in drawing detailed description of the processes involved in the above areas of interest. Instead, the effort will be to look critically at the major conceptualization of bedouin settlement used in the literature, within the context of the study's approach (regional and national setting - see introduction), and the Chapter's emphasis (see above).

A. Induced Versus Spontaneous Settlement

One of the major conceptualizations of bedouin settlement utilized by

the literature is the difference drawn by induced settlement (i.e. by political means), and spontaneous settlement. The main point of this conceptualization is to draw attention to the nature of bedouin settlement during the Ikhwan movement, which have been induced by planned religious teaching from Wahabi preachers, the encouragements offered by the political powers (i.e. Ibn Saud) through subsidies and gifts to the settlers, and sometimes, the almost forced settlement of some groups by the Ikhwan zealots (see below). Induced settlement also includes the government planned efforts for the sedentarization of bedouins in agricultural schemes.⁽⁶⁴⁾

By contrast, spontaneous settlement means individual or collective group settlement, which is not induced by direct government action. Ebrahim explains:

"Collective spontaneous settlement has occurred in Saudi Arabia since 1942 in the form of *hijar*. A group of Bedouins [sic] belonging to the same tribe or lineage applies to the government for a land grant. The land is usually located in their group's tribal territory around a water well owned by the tribe"⁽⁶⁵⁾

When no water well exists, water is drawn by drilling, and the bedouin community is established around it.

Another form of spontaneous settlement is the shanty towns established around urban centres by individual or sub-group settlements, or by group settlement around the facilities of the Trans-Arabian Pipe Line Company, which delivers Saudi oil to Mediterranean ports. The towns of Ar-ar, Kaisoma and Nuayrihah, in fact, were established with such a

beginning.

The spontaneously settling nomads (individually or collectively) could go into unskilled work (as labourers, drivers or the National Guard), if they are shanty town settlers; or they could equally be landowners, peasant farmers or involved in semi-pastoral activities (as well as military work) for long periods,⁽⁶⁶⁾ if they are rurally based. M. Ebrahim also stresses that the settling nomads continue to identify with their bedouin status, even as their children begin gradually to identify with their urban surroundings.⁽⁶⁷⁾

Other discussion of spontaneous settlement have been in relation to Al-Murrah by Donald Cole. He emphasised the role that the National Guard have played in the gradual sedentarization of this generation of Al-Murrah. Some members of Al-Murrah are regular members of the National Guard, but most are members of its reserve sections,⁽⁶⁸⁾ which require them to be on duty at certain times. The sections of the National Guard (regular and reserve) are mostly tribally organized, in the sense that every unit is mostly composed of the members of a particular tribal group with few members from outside it.⁽⁶⁹⁾ The stationing of these sections and visits, furthermore, follows a tribal criterion in so far that they are usually on duty outside their own native locality (i.e. around major cities or in trouble spots).⁽⁷⁰⁾

Lackners emphasized another important element in the process of spontaneous settlement, which relates to the opening up of other work opportunities for the nomads (often poor), which require a degree of literacy and education:

"The bedu family thus realises that the only future for the

younger generation lies in education which will enable the children to gain access to some of the wealth which is available in the Kingdom. Education will also help the young ensure a living for their parents in old age."⁽⁷¹⁾

This search for education and improved work opportunities and livelihood have driven many nomadic families to settling centres, which have sprung more or less spontaneously.⁽⁷²⁾

B Early Versus Recent Settlement

The basis of this other conceptualization of bedouin settlement is also to differentiate between the Ikhwan Hujar scheme (a major nomad settlement period), and subsequent bedouin settlement. Al-Shamekh, who had written a valuable study on the patterns of nomad settlement in Gasim, set out the basis of this distinction:

"The term hijar [hujar] which was applied to the 'early hijar' had a religious connotation. However, this term has come to be applied to the more recent bedouin settlements. The same religious term has been carried even through religion per-se has little to do with their establishment. The 'recent hijar' developed out of the recent spontaneous bedouin rural settlement (post 1930), or as a result of migration from the early hijar. Unlike the early hijar, this settlement process began primarily for economic reasons and sedentary life amenities rather than a religious motivation. These differences in motivation, circumstance of sedentarization, and time, are the reasons for the dichotomy of 'early hijar' and 'recent hijar'."⁽⁷³⁾

Al-Shamekh, therefore, equate "recent settlement" with economically motivated spontaneous rurally-based sedentarization processes, which occurred after 1930 (the defeat of the Ikhwan movement, and the abandonment of the hujar settlement scheme). In Gasim (his area of study), "recent" settlements started only in 1942 and progressed very slowly until the marked increase of the 1950s and the 1960s (five recent settlements in the 1940s, twenty eight recent settlements in the 1950s and eleven settlements in the 1960s).⁽⁷⁴⁾ Al-Shamekh also emphasized that the decline of recent hujar in the 1960s was not due to lack of bedouin interest in settlement, but rather *an indication of the saturation of the region, as well as the failure to gain permission to use untested and unused sites.*⁽⁷⁵⁾

The increase in spontaneous collective "recent" settlement by tribal groups, according to Al-Shamekh, is due to the series of droughts of the 1950s and the 1960s. The development and the domestic economy of these recent settlements, furthermore, grew gradually and they are generally much smaller than early hujar. Their houses tend to be much more dispersed (indicating security and the nomads' love for open space). They also average at around 399 in population.⁽⁷⁶⁾

The most important elements of the recent Hujar economy are agriculture and semi-nomadism. Farming, which is practiced by nearly 40 per cent of the population is mostly for domestic consumption, with only 25 per cent of the crops marketed. The crops grown are wheat, dates and alfalfa. Semi-nomadic activities claims 37 per cent of the population, with trade having the third place of importance.

A very important factor in Al-Shamekh analysis is the surprising similarity between the economy of the early hujar (according to the

interviews conducted with elderly Ikhwan), and the recent ones. Both types of settlements, for example, farmed predominantly for subsistence and practiced semi-nomadic activities. Semi-nomadic activities, furthermore, involved movement with herds; an average distance of 22.27 km in the early hujar, and 13 km distance in the recent ones.

Moreover, the basis of the establishing of the recent settlements in Gasim was the same as in early hujar. Clans and sub-tribal grouping desiring sedentary conditions, chose a site for settlement (within the tribal dirah or hemma) with an existing well or some water potential, and then asked for permission to settle and a grant to the land of the chosen site.⁽⁷⁷⁾

Conflict and population movement among bedouin settlers, furthermore, were also governed by the same principles of tribal divisions and relations. Divisions and quarrels within the settlement drove lineage to establish different settlements, or form hamlets around a central area.⁽⁷⁸⁾ The splits in tribal groups was estimated by Al-Shamekh as occurring after five years of settlement and at a populating growth of 500 people.⁽⁷⁹⁾

Al-Shamekh's analysis of recent settlements in Al-Gasim region is highly valuable in actually presenting detailed knowledge of the sedentarization process in a regional context. It is, however, doubtful that the dichotomy of recent versus early is highly relevant, because the only difference seen between the early and the recent settlement process is in the internal motivational factors (ideological versus economic). Furthermore, there seems to be a marked similarity between the social base of the settlements in both periods, as well in the economic organization. Two additional points of

criticism could be offered:

1. The category of "recent" as described by Al-Shamekh (see above) should also include shanty town settlers and bedouin migrants to urban centres, because this type of settlement is also motivated by economic factors.
2. Al-Shamekh's analysis relates to the early years of the 1970s, which, in most cases, have been dominated by a traditional subsistence based economy in the rural sector. This has been reflected clearly in Shamekh's analysis; and it is also most probable that this is not the case at present, especially after the third development plan and the agricultural incentives of the latter years of the 1970s. The economic dynamic in the last 12-14 years in the rural sector is vastly different (this will be discussed fully in chapter four).

C. Other Views of the Saudi Sedentarization Process

One of the major contributions on the sedentarization process has been offered by Ugo Fabietti in 1982.⁽⁸⁰⁾ Fabietti's emphasis in discussing the sedentarization process has been on the land reforms, and their impact on the sedentarization process of the nomads. His approach, furthermore, was toward placing emphasis on the following:

1. The encapsulation of the nomads in Saudi Arabia (i.e. their placement within a larger and stronger political and economic structure) does not only mean a direct super-imposition of a larger structure on a more limited one (as in Africa), but also the creation of changes and new social dynamics within the

nomadic community (i.e. political, economic and social).

2. A highlighting of the changes occurring through the land reforms to the nomads' traditional access to, and exploitation of, the available resources.
3. A tendency by the Saudi government to exploit the inherent productive instability of pastoral nomadism (especially in view of the arid conditions in the country). Interventions, whether ideological, economic or by planned settlement schemes have always served the basic political goal of sedentarizing the nomads.

Fabietti's main contribution, in this study's opinion, is in his ability to link the bedouins' changing social status in the process of sedentarization, not only with their political status as nomadic bedouins, but also with their economic status as exploiters of pastoral resources. The changes occurring in both areas (political and economic), during the Saudi settlement process, are equally highlighted and linked by this approach; and we are therefore able to appreciate the full extent of the sedentarization policies, and their felt (or potential) impact on the settlers.

Fabietti, therefore, places emphasis on the 1925 Law abolishing the exclusive dirah system, or the traditional collective ownership of tribal land. This law, although very significant in its implication for nomadic groups, did not create immediate alterations in the models of nomadic life.⁽⁸¹⁾ This is because no immediate or total transformation of the models of nomadic resource exploitation was imposed upon the nomads; except in the areas of hujar settlement, which

are small by comparison, and which did not take seriously the agricultural activities (partly because of the arid conditions, and partly because of their involvement in military battles).

Another land distribution reform in 1968 (i.e. the Public Land Distribution Ordinance) had more serious implications for the sedentarization process, because it undertook the task of distributing land to the bedouins, for agricultural purposes, free of charge. By doing so, the law in effect completed the basis of transformations from the traditional formation (collective tribal pastoral access to the resources) to sedentary modern patterns of production (sedentary individual access).

Fabietti, furthermore, took the example of the Shararat bedouins of the north who settled in the Hail region, and who were subject to this law.⁽⁸²⁾ He described how the law had differential impact on this tribal bedouin group, with the elites and the sheikhly families benefiting more from the law - in terms of land appropriation, and some families virtually cut off from the process of land distribution.

This type of concrete analysis of the impact of the sedentarization process on the bedouin group, is often not utilized by previous studies of the settlement of Saudi nomads. For example, Al-Shamekh draws attention to the system of Igta (i.e. the traditional grants of land by the ruler to specific individuals and groups), which has been practiced in the case of particular nomadic tribal groups for sedentarization during the early and recent Hujar; but he never explores the long-term internal impact of this traditional system of land distribution on the group.

The lack of sufficient exploration of this important aspect of the sedentarization process was picked up by Helms, who offered the following comments:

"There is nothing in any of the references that clarifies whether or not these [the Igtas] were land grants of a specified size. Several factors lead me to conclude that they were not. First, most of the tribes settled within or near their own tribal dirah; second, tribal shaiḫs selected the settlement site; third, some members of nomadic tribes did not join the Ikhwan; and finally, environmental factors varied between sites"⁽⁸³⁾

Al-Shamekh, however, have stated that the size of the land granted through Igta is dependent on the following variables:⁽⁸⁴⁾

- A. Size of tribe.
- B. Number of settlers.
- C. Prestige of tribe.
- D. Quality of site.

The tribal leadership, furthermore, is the one responsible for the internal distribution of the land grants and the traditional Igta of land donations.⁽⁸⁵⁾ Their position as a link to the power structure and authority, therefore, bestows upon them additional social status (economic power in relation to the groups' resources), as well as making them a determining factor in the process of distribution both for the government and the group.

4. The Hajar Scheme: The Ikhwan Settlement

Although this chapter mostly focuses on the settlement of nomads from a general point of view, and a specific approach; the Ikhwan settlement scheme serves as a very clear example of the Saudi policies toward bedouin nomadic groups, and the sedentarization policies. Basically, the Ikhwan movement could be considered as an ideological intervention in the structure of pastoral nomadism, and the bedouin social structure. This intervention had served the specific political goals of i) the sedentarization of nomads, in order to control their tendency for a higher degree of political and economic independence; and ii) to serve the expansionist need of Al-Saud beyond their traditional power base in Najd, and within a centralized context.

There is some debate as to the origins of the Ikhwan movement of the 20th century. Helms discusses the base of the debate:

"Although Al-Saud have encouraged Wahabi doctrine among the badu ever since the mid-1700s, it was not until the beginning of the twentieth century that Abd al-Aziz actively began to Islamise the badu population, in the sense that policies of control - economic, social, military and religious - were institutionalized by a central authority. It is not clear, however, whether this was a process of his own initiation or whether it already existed and only later came to his attention."⁽⁸⁶⁾

This issue is not basically important for our present purposes, because the historical outcome for the Saudi bedouin groups remain the same in

either case.

What is not ambiguous at all is the convenient alliance between the religious movement of Wahabism, and the political leadership of Al-Saud (in Al-dariya) in the 18th century. Both leaderships (religious and political) were quite aware of the implication of the alliance politically, and in relation to the power balance in Najd.⁽⁸⁷⁾ Both, therefore, went into this alliance with a full worldly realization of the ramifications of success, on their positions within the sedentary sector of the Najdi population, as well as among the bedouins.

This clear alliance, with a large measure of political convenience,⁽⁸⁸⁾ continued to be one of the bases utilized by the Saudi leaders (especially Abdul Aziz) for mass appeal and legitimacy in Najd and outside it. It became especially significant when the bedouins in the early twentieth century began to adopt the Wahabi fundamental doctrine, after Ibn Saud had established a good power base in Najd (in Riyadh) as well as expanded to Hassa.

The encouragements, incentives, rewards and teaching that the bedouin received, in order to adopt the Wahabi cause and join the Ikhwan in settlement scheme - therefore abandoning the nomadic pastoral existence - are also well documented in the literature by writers of different approaches.⁽⁹⁰⁾ For their efforts on behalf of the movement, and Al-Saud political leadership, the Ikhwan received cash, land grants (within Najd), food subsidies and naturally the political influence associated with political and military success.

Theoretically, the membership in the Islamic (Ikhwan) community should have equalised any social differentials among the bedouins, and

encouraged assimilation between tribes. This was only marginally true in the Ikhwan settlement period. Steps towards this goal included the 1925 law, which was introduced by the political and religious authorities, abolishing the dirah system. They also included the abolishing of the client system of the tribal structure.⁽⁹¹⁾ Hence, all tribes effectively became the clients of the central authority and paid religious tax to it.

The organization of the settlements, as seen above, was heavily influenced by tribal relations and even by the accepted mode of access to the resources (i.e. settlement was in the traditional dirahs). It was also affected by the traditional status of the tribe, its size and its relative importance in the Ikhwan movement. The basic political transformation is seen by Helms as originating from the power of Islam as an ideology among the Muslim Najdi people (bedouin and sedentary).

The strength of the ideology facilitated Ibn-Saud's increase in political legitimacy, his ability to undermine the tribal sheikh's total authority among their groups, and his ability to contain bedouin independence through sedentarization. Total Islamization of the bedouin tribal groups, however, was not attempted because Ibn-Saud understood that the best way to control pastoral nomads was through their leaders, and through firm political and military control.⁽⁹²⁾ The religious aspect of the movement, moreover, was overpowered for Al-Saud by political demands and power needs.

The final destruction and dispersal of the movement was due to the contradictions between the religious nature of the movement, and its role as a military force and a political tool for the central authority. The zeal of the Ikhwan for the fundamental values of Wahabism included raiding British controlled Iraq, and opposing

all newly introduced practices in the Kingdom (like the use of the radio, telegraph or even tobacco).

The final defeat of the Ikhwan rebels around 1930 was relatively easy for King Abdul Aziz (he adopted the title in 1932, after the official proclamation of the Kingdom). This is due to the fact that major divisions have occurred among the Ikhwan themselves. The movement, moreover, seemed to have outgrown its usefulness after uniting the far reaches of the Peninsula under the Saudi authority.

5. The Agricultural Settlement Schemes

There were two planned agricultural schemes in Saudi Arabia. Both were constructed after the periods of droughts affecting the nomads in the 1950s and the 1960s. These droughts were the ecological factors in the process of weakening the economy of pastoral nomadism. The generalized poverty of the Saudi nomads because of these environmental conditions, prompted the government to initiate relief efforts in the worst affected areas.

The first such scheme was in Wadi Sirhan,⁽⁹³⁾ which is a group of very shallow Wadis. These Wadis were used as pasture by the bedouins from the Anzah and Shararat tribes, who were greatly affected by the droughts. The relief project on their behalf was started in 1959. Food, clothing and cash were distributed to 363,200 people in the wadi. In 1961, however, "the relief campaign was terminated and an agricultural settlement project started".⁽⁹⁴⁾ The scheme involved distributing small plots of land, the digging of shallow wells, and distributing small water pumps at the rate of one pump to each 10 to 15 farmers. The project was supported by a training centre and some

agricultural extension services.

Wadi Sirhan settlement project was pronounced as a failure after three years of its establishment. The bedouin settlers mostly abandoned their farms, and returned to pastoralism, as soon as the environmental conditions stabilized. Some left the project for urban centres and unskilled work in the military, and in the private sector.

Ebrahim's visit to the area of the project in 1979 revealed that only ten settlements of the original 200 in Wadi Sirhan were still existing. Most, however, did not practice farming, and were either involved in the military, or dependent on working relatives in urban centres.⁽⁹⁵⁾

The main reason for the failure of the project, according to Ebrahim, was the half-hearted nature of the motivational attitudes of the concerned governmental officials, their lack of understanding of bedouin needs, and the meagerness of the resources available for settlers.⁽⁹⁶⁾ This is also the opinion of Ugo Fabietti who also emphasize the poor technical preparation given to the bedouins.

By contrast, the Haradh settlement scheme in the eastern region of Saudi Arabia was intended as a show piece of nomad settlement. It was started in 1964, and was intended for the settlements of Members of Al-Murrah tribe within a context emphasising modern agricultural production and large scale settlement of the nomads. In other words, a total transformation of bedouin economic structure in terms of type of production and means of production.

The project was targeted for 1,000 families and covered 45,000 dunum, which included a training centre and a commercial centre. The scheme

was targeted, eventually, at individually owned productive units (4 Ha each), which was supposed to have been organized into a modern farming community of small holders. The Haradh settlement scheme was also condemned to failure because of series of errors in the stages of planning and execution. The deficiency was not in the resources allocated, but in the strong western approach utilized by the developers. This resulted in the project never reaching the final stages of its planning schedule (i.e. in settling bedouin communities). Instead it remained as a large government agricultural project, which was later taken over by private investors.⁽⁹⁷⁾

6. An Overview of the Saudi Bedouin Settlement

The Saudi government appears to follow the international standard policy towards the nomadic population, in order to increase the level of control over them (except in Mongolia), i.e. there is a clear policy for the sedentarization of the Saudi bedouin.

The specific nature of the Peninsula's social formation, and the clear cultural unity between the Saudi pastoral nomad and the majority of the sedentary population on the one hand, and the ruling regime on the other, have affected (and slightly obscured) the set path for undermining the pastoral nomadic sector, both ideologically and even concretely. This is because some of the shared traditional cultural elements between the sectors (i.e. the social aspects of tribalism), have been retained to a certain limit (due to their usefulness and importance), and even sometimes utilized to undermine the bedouin sector (i.e. political control through the tribal leaders).

Furthermore, the bedouin sector's size and felt importance in the

traditional society, and during the formation of the modern Saudi nation, have contributed to the setting up of certain political measures to contain the sector within the confines of the state's authority, without appearing to seek its total destruction. Religion has been initially the means through which the sector was incorporated under centralized conditions. Subsequently, however, specific political and economic measures were needed and utilized to retain the sector under control. These latter measures have been through an alliance with the tribal leadership, and an ability to contain tribalism within a safe context (i.e. devoid of its real political and economic dynamism). The land reforms, and the gradual transformation of the Saudi economy, as well as the increased level of sedentarization have set the tone for bedouin settlement since the end of the early period of nomad sedentarization.

In assessing the study of the Saudi bedouin settlement, the following elements may be highlighted:

1. Most studies have stressed the difference between the early settlement pattern, i.e. the Ikhwan, and subsequent settlement patterns. The differentiation set between the ideological and the economic motivational factors in settlement is legitimate; but it fails to draw any distinction between the different patterns of production that the bedouins may be engaged in. We need, therefore, to draw such distinctions if we are to comprehend fully the implication of settlement for the bedouin, i.e. distinction between a subsistence economy, a wage based economy, or an urban modern one. This can only be done through an analysis of the regional economic setting.

2. Studies conducted in the latter years of the 1970s have failed to recognize that there have been great developments within the rural sector. Ones that have moved it away from its traditional base, into closer proximity to modern relations of production. This has occurred through the land reforms and the agricultural development programme. We need to understand these developments fully, in order to have a clear understanding of the gradual transformation of economy of the bedouin sector.
3. Spontaneous versus induced settlement could be useful in some cases of settlement; but we must recognise that in every case of settlement there are concrete elements pushing for the sedentarization of the individual (i.e. inducing him/her to this choice). For example, collective "recent" settlements in Gasim, because of economic difficulties (droughts) is not induced by government action, but are induced by poverty and economic need.
4. The social aspects of tribalism appear to have been retained in settled conditions, despite the absence of the previous social cohesiveness and independence. Furthermore, tribal relationships in settlement appear to retain some of its political and economic potency. Hence, bedouin groups settle in their own dirah, are given Royal grants of land (independent of bureaucratic procedure, i.e. through their Amir), and the tribal leadership is given administrative power and increased status. Population movement, moreover, is controlled by tribal consideration and relationships.

Conclusion

As was seen in the early parts of this chapter, we must distinguish theoretically between detribalization and the sedentarization of the nomads. This is because tribalism extends beyond the confines of pastoral nomadism and is an all encompassing social system.

Within the Saudi context this is even more important because tribalism is shared by the sedentary and nomadic population. It has also been utilized and retained by the society at large, as well as by the political system within centralized and sedentarized conditions.

We have also emphasized in the early parts of this chapter the way in which the sedentarization policies, in the early stages of Saudi history, have not actively desired a total elimination of tribalism, nor the destruction of some of its major components (i.e. tribal leadership and some measure of economic potency). Instead, it sought to contain tribalism within a context that is in keeping with the nature of the state (i.e. a traditional legitimacy through the Islamic ideology and tribal prominence), and the nature of the society.

The rapid transformations affecting the Saudi state and economy (through increased wealth) have brought new forms and measures of control within the powers of the state. These newer forms of control (i.e. through economic and political incorporation, land reforms, planned modern schemes for bedouin settlement) have been operative quite frequently in the case of the Saudi bedouin, especially since the development plans have been targeted to the rural and traditional population (i.e. post the 1970s oil price increase). These emerging patterns of production may be seen as a further important element in

the gradual transformation of the traditional-rurally based population. In this sense, they are an added and most effective element in the gradual process of detribalization and transformation of the traditional society.

We need to look at these emerging patterns of production nationally, and specifically among the nomads, in order to understand the sedentarization process, as well as the social transformation of the bedouin sector. This should be done not only through focussing on previous or current paths of social transformation in the bedouin sector, but through a thorough examination of the available economic options, and their social impact when practised. This is the task set out for the remaining chapters of this study.

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Chapter Three
Region and Methods

Introduction

Common practice dictates that methodological issues occupy a small section of the introductory pages of any work. In studies involving a period of fieldwork, this practice means that issues like sampling, the interviewing process, and sources of information are given the briefest of treatment. This study, however, would like to highlight these issues more than is customary. The reasons behind this decision are the following:

1. Many text books exist which tell us how to conduct fieldwork and research projects. These, however, may differ considerably and tend to present a single approach to methodology. ⁽¹⁾ As a result, the social researcher is constrained by a need to follow a particular method, and frustrated if particular obstacles exist, which prevent him/her following the set route. Sociological research enterprises, moreover, tend to ignore how vital it is for the inexperienced social researcher to know precisely the circumstances of the "doing" of social research ⁽²⁾. The standard treatment of methodological issues prevents us from gaining valuable knowledge about how methods were followed and how obstacles were overcome.
2. The emphasis on the "scientific" nature of sociological enterprises places "the persons" and the "circumstance" of research projects at the periphery of sociological research, and its results ⁽³⁾. Yet in reality this is rarely so, and it is not the case in this work (see last section of this chapter). Besides the obvious fact that the researcher is

entering the process of study with a hypothesis that needs supporting, he/she is also entering a process of engagement with the "persons" and "social factors" that comprise the object of study. The implications of this engagement are:

- A) We cannot afford to ignore the role of interaction between the observer and the observed. Any object only gains its objectivity through the process of being observed ⁽⁴⁾. That means that the frames of reference, for the observer and the observed, are as important to what is being discovered, as the technique through which the investigation is being carried out.

- B) Any resulting knowledge is only one possible version of the truth, or of the "objective" reality of the studied object. ⁽⁵⁾

The above became significant throughout the period of fieldwork for this present study. It became, therefore, important that methodological issues be highlighted and some of the facets of the engagement be relayed.

3. Female researchers are faced with particular problems, especially when the social environment surrounding the object of study places an extra burden of customs and role models on the female researcher. These rules and customs not only may act as obstacles to the course of investigation, but are also in themselves, facets of knowledge. Moreover, they need to be highlighted for the benefit of future, similarly placed female researchers.

This chapter will be divided into two sections. The first will deal with the region of study, and more particularly Sajir, the locality of the investigation. Some of the basic data and information will be presented, which will serve as the background for further accounts in the later chapters of the thesis.

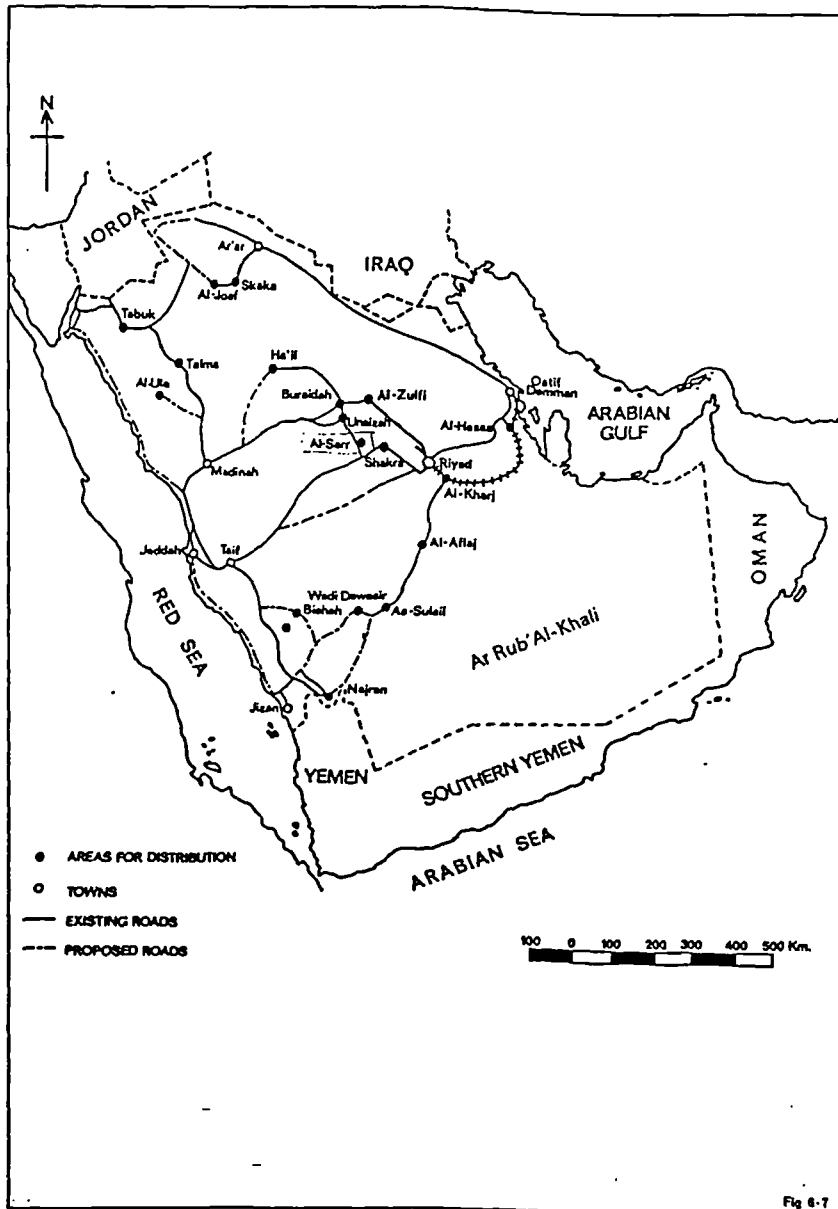
The second section will deal with the methodological issues, like sources of information, sampling and the interviewing process. The last section of this chapter will give an account of some aspects of the "engagement" during the fieldwork period.

I The Region of Study

Asser is the region in which Sajir and the surrounding villages and settlements are located. Asser lies west of Al-Washim region (the city of Shagra and the surrounding areas), north of the town of Al-Dawadmi, and south of Al-Gasim region. It may be thought of as being nearly in the centre of Najid, or the central region of Saudi Arabia. (See figure 3.1).

Asser is an agricultural region, rich in its water resources and soil conditions. It is also well placed between major urban markets like Riyadh, Gasim and Al-Dawadmi. Its position along the major highway connecting the northern region to the capital of Saudi Arabia has been very beneficial to the spread of a reasonable level of modern amenities and services. Asser has more than 40 villages and Hijars situated in it. These vary in size considerably, but none reach a town or city level in terms of population size, organisation or services. The older villages (established before the Ikhwan movement) are traditionally farming communities, which have decreased in terms of size during the

FIGURE 3.1

Location of Asser¹

SOURCE : Hajrah, H., Public Land Distribution in Saudi Arabia, Longman Group, 1982,

1. Asser is spelt as AL - SARR in this figure. It has been also spelt as AL - SERR and ASSERR.

early decades of the establishment of Saudi Arabia, through the effects of rural-urban migration. Some previously long existent communities are reduced at present to a handful of households.

Most of the other villages and bedouin settlements, however, had benefited greatly during the 1970s and 1980s from the state initiated push for the development of the rural and agricultural sector. Settlement of these villages and hujars had been encouraged through the new incentives created in the 1975 development plan for an enlarged and more productive agricultural sector (these will be discussed more fully in chapter 4). This was especially true of the villages and hujars that included larger areas of arable land within their traditional boundaries.

1) Sajir in Perspective

Sajir is the largest Hijrah (bedouin settlement) in the region of study (around 18,000 inhabitants). It is located right on the road connecting Al-Dawadmi to Al-Gasim's two major cities: Buraidah and Aunaisah. That road was paved in the 1960s and has been an instrumental element in the growth and development of Sajir and the other settlements and villages surrounding it.

Sajir is called by its inhabitants the capital of Asser. This is sorely resented by other residents of older villages and similarly aged bedouin settlements. Nevertheless, Sajir is the centre of all the local government agencies, as well as of most of the commercial activities. If some of the other villages and settlements in Asser have any governmental offices, they are usually smaller than the ones in Sajir.

Sajir's claim to fame is based in its role in the history of the Ikhwan movement. It became one of the major hujars for the Utaibah tribe, and in the past supplied around 800 warriors for the Ikhwan battles. It was also partly involved in the Ikhwan rebellion of 1929 and 1930 against Ibn Saud. Another claim to fame came after the November 1979 incident of the Holy Mosque in Meccah (Al-Haram Al-Sharif). A group of armed muslim fundamentalists siezed the Mosque, occupied it for a few days, and began to broadcast messages against the government. This group, which was composed of a mixture of Saudis and non Saudis, was quickly defeated, and its members tried and executed. Its military leader, however, was a native of Sajir, who is believed to be related to some of the early rebels of the 1920s. Sajir subsequently experienced some tightening up and strengthening of the local civil defence organisation, and some suspected sympathisers were arrested. This issue, nonetheless, was not on this study's agenda, nor was it attended to by the inhabitants. In fact they displayed the customary loyalty and nationalism toward the political system.

Before discussing the founding and the history of Sajir, a brief discussion of the qabilah (tribal) social organisation is necessary; both in general terms, and more particularly the organisation of the Utaibah tribe. There are some different approaches to the representation of the tribal social structure. Such variance reflects not only the historians' and anthropologists' own viewpoint, but also how the organisation is represented by the members of the tribe itself.

The Arabs' representation of al-qabilah social organisation and segmentation is through the medium of the Arabic terminology for the various parts of the human body. This reflects the image of descent from a common ancestor, and also a feeling of organic cohesion. The

terminology used by the Arabs for the various levels of segmentation is the following:

1. Qabilah: The mother tribe or the macro level of social organisation. The word comes from the term qablat al-ras (the front of the head or the face) It is the paramount element of the social identity, and it also encompasses all lower levels of segmentation.
2. Aamarah: This term literally means the upper part of the human torso (chest and neck) or a large building. This may be represented by the term sub tribe, or a maximal lineage group. It is not, however, a term always used by tribal members to describe their own social organisation. Variance in the use of Aamarah depends of the size of the tribe, and the way it is actually segmented.
3. Al-Batin: Literally meaning the abdomen of the human body, it is often represented by the term clan or major lineage. The numbers of batins in any tribe or sub-tribe vary in different social organisations.
4. Fakhath: The next level down from the clan or al-batin. The word literally means thigh, and it is often translated by the terms lineage or minor lineage. Lineages derive their origin from a male ancestor, who lived about five generations ago. This level of social identification is the most significant for the tribal members within their own group. A lineage may average around fifty households, but could increase in size greatly.

5. Hamulah: A group of related kin; sometimes represented by the term minimal lineage, which is a section of the lineage.

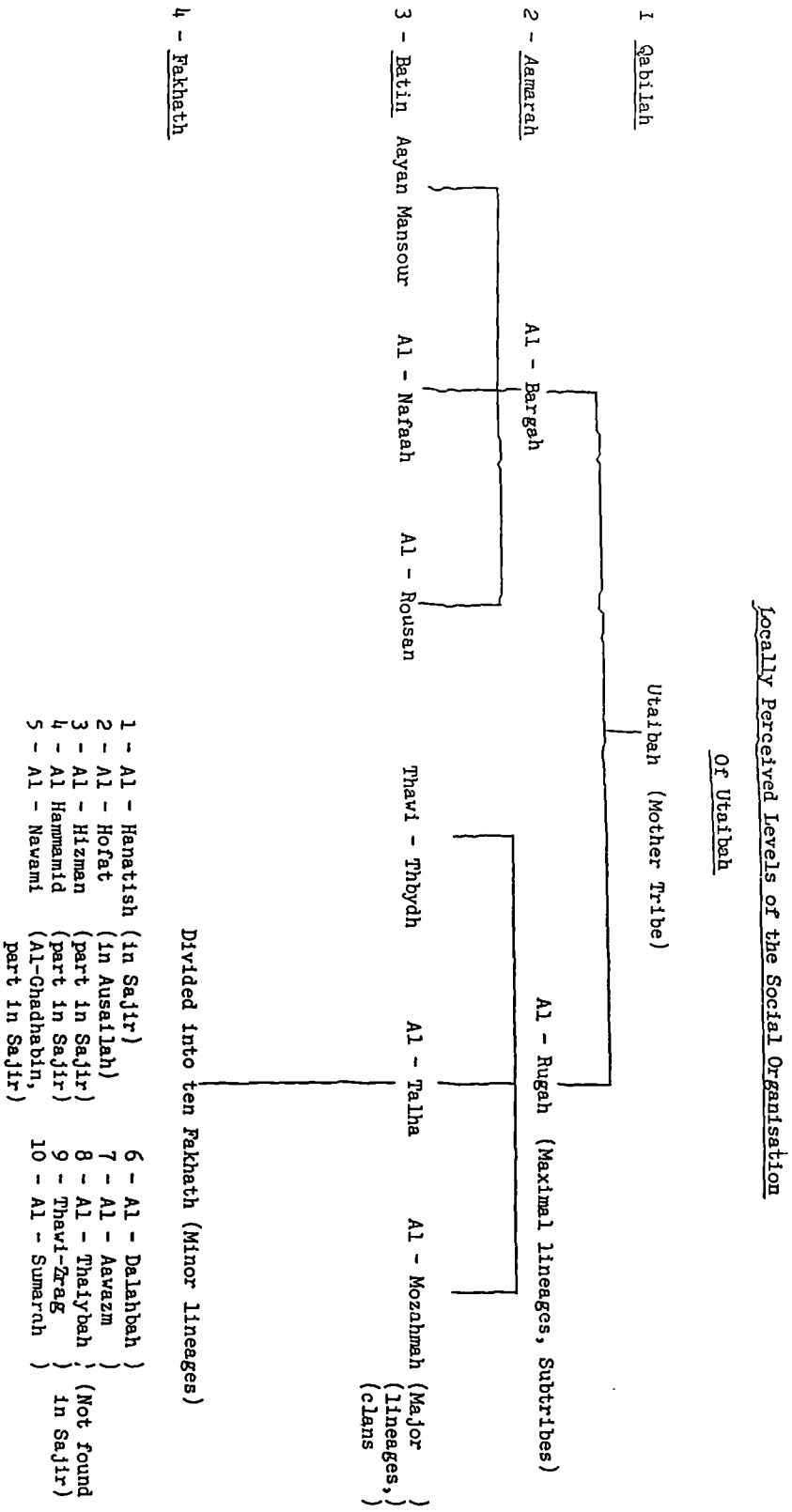
6. Al-bait or Al-'ailah: The individual household, or family. The most basic unit of the tribal social organisation, which consists usually of an extended patriarchal family (elderly mother and father, their sons and their sons' wives and children).

As was mentioned before, this structure is not utilized in full to represent particular tribal structures by the tribal members themselves or by outsiders. Donald Cole described the social organisation of Al-Murah tribe as composed of seven clans with each forming four to six lineages (6). Descriptions of Utaibah's social structure are no less varied, in terms of the terminology used, the actual segmentation, and also the names of the segments. Hamad Al-Jazer, the most distinguished of Saudi historians describes Utaibah as having two sections - Al-Bargah and Al-Rugah. Each in turn is divided into a large number of lineages. Another representation pointed out also by Al-Jazer is a subdivision of each large section into two sub sections (major lineages), which in turn are divided into lineages (7).

Al-Jazer does not use any specific terminology, but others do. Al-Falalli, for example, described Utaibah as having two batins, each divided into eight to ten fakhaths (two levels of segmentation) (8) Hussain Al-Sajini agreed as to the two batins, but saw each of these as divided into three fakhaths, each of which in turn incorporates a number of hamulah (three levels of segmentation).

Figure 3.2 represents the social organisation of Utaibah as identified

Figure 3.2



5 - Each Fakhath is divided into a number of Hamulahs (related kin, minimal lineages)

by the local tribal members. Extensive interviews with several of the elderly original founders of Sajir and some of the local experts revealed more complex levels of segmentation (or integration), and a tendency to utilise all of the levels of the social organisation of Arab tribes. This is due to the large size of Utaibah. If we consider for instance that one Fakhath (Al-Hanatish of Sajir) numbers around 18,000 persons, and that another (Al-Hofat) occupies three separate settlements, it is no wonder that Utaibah needs all of the available levels of social organisation.

Hamad Al-Jazer named 27 lineage sections of Al-Rugah ⁽¹⁰⁾, some of which are hamulahs in Sajir. For example he named Thawi-Muhaiya, who are the leading hamulah in Sajir (The Amir's family), and also Al-karashmah, who occupy a separate hamlet of Sajir. Those two hamulahs, however, were never mentioned as separate fakhaths by the local experts, despite being very large minimal lineages or hamulahs. The representation, nonetheless, shows a degree of fluidity in the tribal social structure. Al-karashmah themselves maintained that they are a separate lineage and named themselves as such, which is a reflection of their lineage's rapid growth, in terms of numbers and importance. Commonly, however minimal lineages or hamulahs never identify themselves separately from their Fakhath or the major lineages they belong to.

Sajir, by all accounts, ⁽¹¹⁾ was established in the same year of the battles of Turbah and Khurmah, which heralded Ibn-Saud and the Ikhwan entry into Al-Hijaz. These battles occurred around June of 1919. These accounts seem to be reinforced by the fact that no mention of Sajir and its military leaders is ever seen during the period before this date. Sajir in the heyday of Al-Ikhwan used to supply Ibn Saud's army with

800 mounted warriors (12). A sister settlement of Al-Hofat was established in the same year, but was substantially smaller. Only 300 Hofat warriors joined the battles of Ikhwan. Despite the fact that a bedouin settler of Sajir insisted that the settlement of Sajir had been established long before the Ikhwan movement, his own testimony repudiates this claim. He stated that the permission to establish the settlement had been granted to Al-Hanatish by Ibn Saud. What this means is that Ibn Saud had already established his authority over the tribe, which suggests a date after 1912 (when the first Ikhwan settlements were established).

Sajir had passed through a series of consecutive leaderships, of which Al-Muhaiya leadership was the most prominent and enduring, according to the present Sajirans. This seems to be, however, a function of selective memory (13) and the fact that Al-Muhaiya leadership has lasted since the beginning of the 1930s. Ausailah, the sister settlement for Al-Hofat lineage was established in the same year, and had passed from the leadership of Ibn Merwi to Ibn Twaig, and finally to Ibn Tume, the present Amir.

Both of these settlements were in the past of a source of irritation and intimidation for the surrounding villagers in the region. This was due to their excessive zeal for the ideology of Ikhwan, and their total absorption in its military battles. The villagers of Al-Burud, for example, would receive bedouin zealots from Sajir and Ausailah, who would strongly advocate a certain type of Islamic dress and/or intimidate them into sending mounted fighters into the Ikhwan battles. Not more than three men in this village have ever actively espoused the cause, or gone into battle, despite being on the side of Ibn Saud all along. (14)

2) Sajir at Present

Nothing visually can dispose the traveller to think of Sajir proper as a capital of anything, or as having as large a population as it really has. It is a sleepy, dusty, fairly large village that sprawls for about five kilometres along a major highway. Modern buildings stand side by side with traditional and mud houses, with the majority facing the road. The development of Sajir seems to have progressed along the highway, with almost all of the commercial and governmental institutions competing for attention and accessibility along it.

There is, nonetheless, a perceptible new tendency to develop Sajir in a more regular pattern toward the western side of the road. Most of the schools, residential houses, and amenities are in the process of being congregated in this direction. Sajir is also developing in leaps and bounds, with every visit revealing substantial changes and newly erected buildings. It is conceivable that the ten coming years could see Sajir changing beyond recognition.

The strength of Sajir lies in the extensive agricultural land surrounding it, especially to the west of the settlement. During the field work, there were two major paved roads leading only to the western farming regions of Sajir. These roads, however, stop about 30 kilometres from the highway, which is hardly sufficient for an agricultural region extending more than 100 kilometres from east to west. The farms and hamlets of Sajir, moreover, are not always located near those two roads. To reach them one has to travel on desert tracks for a considerable time before arriving at the destination.

The majority of Sajirans do not live in the settlement itself, partly

because they prefer to live on their farms or in outside hamlets, and also because Sajir does not seem to encourage residential living. It does not have a nucleus around which amenities, roads and houses congregate, unlike older and more traditional villages and settlements. In such villages, the mosque is the focal point from which all other functions radiate. There, the area in the middle of the settlement is where the older houses are located, children are found playing, and men congregate in the evening to drink coffee and discuss matters. Sajir by contrast sprawls without any coherent pattern, except that of the commercial logic, and accessibility of the highway.

Sajir has the following administrative functions:

1. The Amirate of Sajir, which holds control only over the settlement itself and the secondary hamlets.
2. The Police, which serve a larger area than Sajir, extending over all the smaller settlements and villages in the region. The police, however, are connected administratively to the Amirate, which means a measure of power in the hands of the local administrators.
3. The Civil Defence Centre. This deals with fires, natural disasters and rescue operations, as well as other functions relating to the Ministry of Interior's role in the locality. The centre also serves all of the villages and settlements nearby.

All of the above local agencies are directly connected to the Ministry of Interior in Riyadh.

4. The Rural Council, which administers all the affairs of 41 villages, settlements and hamlets. The council's functions relate to town planning , electrical power, roads, sanitation and the issuing of permits for all matters relating to construction and commercial activities. The Rural Council is attached to the Ministry of Rural and Bedouin Affairs.

5. The Regional Offices of the Ministry of Agriculture and the Saudi Arabian Agricultural Bank. These provide the extension services needed by the farmers of more than 20 villages, settlements and hamlets, as well as providing credit services and some trained personnel.

6. The Social Services Regional Office. This services more than 30 communities in the area. The office services include monthly payments to the needy (widowed females, the disabled, and poor families), as well as providing financial help to those who suffer from any natural disasters.

In addition to the above local government agencies, Sajir has six schools, providing elementary education for boys and girls (two separate schools), secondary schooling (two separate schools), one high school for boys, and one teacher training school for girls. There is also one fairly large medical clinic, which does not, however, provide full services. People in the area with serious illnesses have to go to one of the larger cities like Shagra, Dawadmi and Aunaisah. There is also a local court.

None of the above functions have large organisational structures. Most of them are housed in small buildings (sometimes traditional brick

ones) with a small number of employees. What is provided is a limited service, as well as a source of employment for the local people, especially the male high school graduates. Local people sometimes complain of long waiting periods for essential services as well as the need to exert pressure on the central governmental agencies in Riyadh, which in turn provide the funds and the necessary organisational structures for the needed amenities.

Having these services based in Sajir is a source of irritation and envy for the people outside it, even when they are as close as fifteen kilometres. They perceive these services as being monopolised by the inhabitants of Sajir, in terms of benefits and employment. The dearest wish of people in other settlements, for example, is to have their own high school or teacher training school for girls, as well as SAAB or MAW offices. These feelings exist among other bedouin communities as well as the sedentary villagers. Visits to Ausailah and other settlements showed this tendency very clearly. In some cases the people of Ausailah and Al-Burud, the closest two communities, preferred to boycott certain local offices or schools rather than accept the necessity of depending on the ones in Sajir.

This generalised tendency creates a degree of confusion in the administrative organisations. For example, the people of Al-Burud refuse to rely on the Sajir local administrative office for the education of girls. Instead their girls' school is administratively controlled by an office in Al-Dawadmi (more than 100 kilometres away). Ausailahs' girls' schools are also not controlled by the Sajir office, nor by Al-Dawadmi office. They are instead, affiliated to the one in Shagrah (approximately 100 kilometres distance). Moreover, people with minor ailments travel long distances to larger clinics or hospitals,

rather than taking advantage of the one in Sajir. The same tendency seems to affect other facets of the local administrative functions, which creates an atmosphere of distrust and division. Sajirians, however, are unaffected by such feelings, despite having the same measure of antagonism toward other settlements and villages. They take comfort in knowing that they have the most important settlement in the surrounding area, and the most conveniently located. In 1983, the area of 41 settlements served by the rural council had the following industrial and commercial activities:

- 24 brick laying factories.
- 5 welding shops
- 14 shops for mechanical work
- 3 car sale shops
- 12 petrol stations
- 117 business ventures
- 78 restaurants (adjoining the petrol stations)
- 6 butchers
- 7 bakeries
- 16 dressmakers (for men and women)
- 2 barbers
- 1 water bottling plant
- 1 carpeting shop

Despite not being able to have access to data relating to Sajir specifically (it does not exist), the above functions are located mostly in 7 of the 41 settlements in the area. Sajir is the locality for substantial numbers of the most important commercial and industrial activities, especially the ones relating to agricultural machinery and services. Nearly all of the above activities are employers of a

foreign labour force, composed of other Arab nationals, Pakistanis, Indians, Afghanis and Philipinos. The local people are owners of commercial enterprises, and/or civil employees.

The nearest sedentary villages and bedouin settlements to Sajir, visited during the field work period, are the following:

1. Ausailah: The bedouin settlement of Al-Hofat lineage of Utaibah, it is fifteen kilometres south west of Sajir, and is located directly on the main highway (population 1,800).
2. Al-Burud: A sedentary traditionally farming village about 300 years old, also 15 kilometres south west of Sajir. Its 800 population come mostly from a lineage from Harb, who also hold the leadership of Al-Burud. Other tribal groups live in the village, and some are closely related to the dominant lineage by a process of intermarriage.
3. Artawi Al-Ragas: Another settlement for Al-Hofat, 18 kilometres south from Sajir (3 kilometres from Ausailah). Population 900.
4. Al-Khofafyah: Another Hofat settlement, 36 kilometres south of Sajir. Population 360.

In addition to the above fully fledged settlements and villages, five bedouin hamlets on Sajir's agricultural lands were visited. These are the following:

1. Al-Tasrir: 35 kilometres into the farming lands of Sajir.

This is inhabited by Al-Ghadhabin, who are variously reported as numbering 170 or 500. A more realistic number, based on a field visit, would be somewhere in the middle of the above estimates.

2. Al-Hobabyah: About 20 kilometres away from Sajir. Inhabited by Al-Karashmah, who number around 400 persons.
3. Al-Dyaryah: 30 kilometres distance from Sajir. Inhabited by Al-Hizman lineage who number around 400 persons.
4. Al-Rajhyah: 40 kilometres distance from Sajir. Also inhabited by Al-Hizman. Its population is not precisely known, but may be similar to Al-Dyaryah, if not slightly more.

All of the above hamlet settlements lie west to Sajir proper, on the extensive farming lands of the settlement.

Section II

1) Methodology and the Interviewing Process

I initially became interested in Sajir during visits to my native village of Al-Burud, during the latter years of the 1970s. This bedouin settlement was growing substantially both in size and importance, and was gaining a reputation for being an example of a successful voluntary agricultural settlement for a bedouin community. My interest intensified when furnished with some basic knowledge of the settlement's history, and its role in the Ikhwan battles for the

unification of the kingdom.

In the endeavour to make Sajir the target bedouin community for this study of sedentarization processes, and the agricultural sector in Saudi Arabia, I was encouraged by my connection to Asser, and more particularly to Al-Burud village. I imagined that the social difficulties for a female researcher would be substantially lessened by such a basic connection. That, however, did not prove to be the reality of the situation. In fact, the whole endeavour became partly an effort to combat the limitations imposed by my identity and my social and cultural connections to the region.

These limitations will be discussed more fully in the final part of this chapter. Suffice it to say here, that the eventual decision to focus on issues derived mainly from the interviews conducted with the bedouin farmers, was in part due to my inability to gain full access to the responsible local agencies of the government, the male dominated working place, and the whole of the significant social environment.

Even the interviewing process was limited by the social restrictions governing male-female interaction and the woman's place in the social order.

It is partly due to these difficulties, that the fieldwork period extended longer than expected. The initial pilot study was carried out in December 1982. During 1984 and the larger part of 1985 I made a series of short and extended stays in the region. The period between April and June of 1985 was dominated by the process of interviewing the bedouin and sedentary farmers.

The data upon which the whole of the latter part of this study is based were obtained through the following sources.

(1) The central government agencies that play a vital role in the national development of the agricultural sector. These are:

A - The Ministry of Agriculture and Water

B - The Saudi Arabian Agricultural Bank.

Data obtained from the above agencies were in the form of published and unpublished reports and official data relating to the state of agriculture generally, and more particular information about the region of the study. This data forms part of the discussion in chapter four of this study.

(2) Data was obtained from the local governmental agencies. These include: The Amir's office, the offices of the Ministry of Agriculture and the Agricultural Bank, the local municipal authorities (the rural council), and the local educational institutions. Related information was also forthcoming from the social security office, and the medical clinic.

From the above offices, data was gathered about the population of the region and commercial functions, the agricultural and pastoral activities, and the basic outline of the region's statistics. Some of this basic information is relayed in the previous section of this chapter. The major part, however, forms sections of chapter six and seven of this study, which deal with the agricultural and the livestock breeding activities.

Despite the fact that the process of the interviewing of local officials and the gathering of information was mainly conducted over the telephone or by written messages (see last section of this chapter), I found that the offices of the Ministry of Agriculture and the Agricultural Bank, which deal with economic matters, were the easiest to penetrate. The Amirate offices, which employ the most prominent of the local inhabitants, were able to provide basic statistics and information, but were never available for prolonged interviews or discussions, even in written form. This may be due to the political and sensitive nature of the Amirate offices and the fact that their employees are traditional local people. The agricultural services offices, by contrast, are employers of urban and more trained personnel, who deal with less sensitive matters.

- (3) Data and composite information about Sajir was also enhanced by a series of visits to all of the nearest villages and settlements. Such visits provided valuable information about the relationship of Sajir and its population to other settlements and communities. It also provided a better knowledge of this settlement by a process of comparison with other settlements, settlers and other social factors. This was particularly true in the case of the land distribution systems (discussed in Chapter 6) and the process of segmentation in the social organisation (discussed in the previous section of this chapter).
- (4) Data was also obtained through a process of group discussions and personal interviews with the farmers in Sajir. The group

discussions provided an early basic knowledge of the conditions operative in agricultural regions. They also illuminated some of the particular issues and problems that are significant for Sajir's farming community. The process of group discussions was never planned in the early period of the fieldwork, but seemed to evolve naturally during prolonged visits to farms or farming hamlets at the outskirts of Sajir. During such visits, all the neighbouring farmers would be invited by the host household. They tended to remain after the meal, and out of curiosity would join in the discussion with the host farmer. The early group meetings were invaluable in the planning of the questionnaire and the personal interviews. *They remained a valuable tool for the fieldwork, and could be easily arranged through the kind assistance of some friendly farmers.*

A similar group discussion was arranged with the managers of the large farming operations. These foreign managers (one Jordanian, two Americans) had long experience of farming in the region, as well as a high level of skill and expertise. Their views and perception of the farming operation, and the practices employed by the bedouin farmers, were invaluable in creating a more balanced view of the situation.

More than 45 personal interviews were conducted with bedouin farmers, 38 of which were according to the final form of the questionnaire. The personal interview questions consisted of 76 items of inquiry (see appendix 1), which were designed to shed light on the following issues:

- 1 - The settlement patterns as experienced by the bedouin community of Sajir.
- 2 - Forms of economic adaption and social transformation operative among the bedouin farmers in Sajir, both within the traditional structure (pastoralism) and in the modern sector (employment and agriculture).
- 3 - Basic information relating to the farming operation, in terms of land, labour, cultivation and production of agricultural goods.
- 4 - The perception, attitudes and commitment of farmers toward the agricultural operation.

The sampling process was originally conceived as being through a random selection of farmers from the lists of names available from the local offices of the Ministry of Agriculture and the Agricultural Bank. This proved to be a very naive plan, in as much as it assumed that the farmers could be located, reached and finally interviewed. No plan could have been further from a correct estimation of the reality of the situation. Sajir and the surrounding area does not have a developed postal service. As such, there are no addresses to be found or reached. The majority of farms, furthermore, are in remote desert areas, which means that only a very well informed or long time resident could find the way to these farms. Engaging the help and services of such a person was not possible in this case (see last section of this chapter).

The early attempts at random interviewing proved also very

unsuccessful, because of the lack of a link to the chosen households. With hindsight, this should have been expected because of the abrupt manner of those attempts. The early rejections, nonetheless, were very discouraging.

Not having the links to direct my halting efforts into the direction of personal interviews, another plan took shape. I would start at the centre and work my way toward the outskirts of Sajir, in a process of random visits to farming homesteads, until my sampling quota was satisfied. This again proved to be an unsatisfactory plan because of the following reasons:

- 1) There was a great deal of uncertainty in its implementation, in terms of both the physical surroundings as well as the eventual outcome. Desert tracks may appear strong and decisive at first, but they have a habit of dividing and subdividing until they sometimes disappear completely. Secondly, even when a homestead is reached, there is no guarantee that acceptance is forthcoming. Finally, the need to have an established link to the farming households and some sort of companionship of the "male relative" variety (see the next section) was also becoming very clear.
- 2) I also wanted to include a larger number of the newly sedentarized bedouins in my sample. This meant that I would have to go further into the more remote and newly settled farming areas. Working from the centre would prejudice the sampling process toward the older settlers of Sajir.

For the above reason, no further attempt at random sampling was made.

Instead, the "snowball" sampling method was adopted. Once access to individual homesteads was achieved and a definitive link was established, all further interviews were solicited through the assistance and guidance of the previous interviewee. This method proved very effective, because I came recommended by neighbours, acquaintances and also usually accompanied by a son of the previously interviewed farmer. "Snowballing", however, in this case was a time consuming process, which required a great deal of pleasant socialising and prolonged visits to establish trust and friendly intentions. These visits, moreover, had to occur in the afternoons and/or weekends when the heads of the households were back from work.

A further 25 interviews were conducted with the sedentary farmers of Al-Burud. The sample this time included nearly all of the farmers in this village, and it was substantially easier to achieve than the one in Sajir. This was due to my familiarity with the area, as well as the already gained experience of the interviewing methods. The second batch of interviews was intended to see what differences existed between the sedentaries and the bedouin in the agricultural sector, especially in the area of perceptions, attitudes and commitment to a farming livelihood.

Al-Burud was chosen, not only because it is the most convenient sedentary village in this case, but also because there is not a similarly sized sedentary farming community nearby. To insist on similarity of size would have meant travelling much further north toward Al-Gasim, which has a different social and natural profile to that of Asser. It would also mean having to go through the whole process of field work again.

2) At the Sharp End of Sociological Research

When I arrived in Sajir for the start of this project, I was armed with a letter of introduction from my sponsoring university, an official blanket request for assistance, and a great deal of enthusiasm and hope. I anticipated that this would be enough to pave the way for any social researcher, especially when met with the customary good will and generosity of the Saudi people. Although this was partly true, there also turned out to be substantial obstacles which were created by some of the social and cultural factors governing my own life and the lives of the local people.

These difficulties are derived from three sources:

1. I was a woman, trying to penetrate an area of the social system that is basically male dominated.
2. Being a native of the region meant that I had a good deal of commitment and obligation to conform to local customs, and codes of behaviour. This is not only because it was natural and expected, but also because I personally could not afford to be seen not conforming to a minimum of expected behaviour.
3. I was also hampered by a social identity that can be easily identified and placed within the regional social structure (i.e. sedentary from Al-Burud, and from a particular group of people).

These three elements are interconnected, and cannot be isolated completely at any point of time or in any particular situation.

Retrospectively, they combined to create a situation of opposition and conflict to the study, which was often clearly exhibited. At the time of field work, however, certain manifestations of the existence of the above elements were obscured by past socialisation, and the natural capacity for adaptation, acceptance and justification. Certain limitations, for instance, were accepted without any real thought or objection because it was more convenient to do so. The primary example of this was the abandonment of the original plan to reside in Sajir itself. This idea was opposed by my people in Al-Burud, and received with scepticism and incredulity from the Sajirans. Why would a woman think of living alone in neighbouring settlement, when she has a perfectly good home not more than fifteen kilometres away? Not even the customary high regard for education and knowledge could overcome the objectionability of such a proposition.

If the idea had been pursued, it would have been quite beneficial to mutual understanding, integration, and acceptance within the settlement. It might have also lessened the considerable difficulties of the interviewing process. Any initial hostility would probably have been overcome by time and the neighbourly duty among Moslem people. Another feature of the same process is a certain lack of persistence in pursuing objectives (i.e. personal interviews with local officials, and the chasing up of denied data), because I have intimate first hand knowledge of the implications of rejections, and the repercussions of too strong an image of "aggressiveness and assertiveness" for a local woman. In this respect I behaved more like the "observed" than the "observer". A stranger to the social system would have been blissfully unaware, and/or unaffected by such considerations.

At the heart of the above issues are a) the severe limitations of the

physical mobility of a female researcher generally, especially in rural areas, and b) the regulations governing female social conduct, and male-female interaction. The need for a paid driver was recognised from the outset, and that was provided by engaging the services of a Filipino one. The inability to have access to the male dominated working environment was also recognised, but its effect on the actual process of the gathering of the data was not expected to be a major obstacle. That, however, was not true. In concrete terms, the following became significant as the fieldwork gained momentum:

- 1) Islamic laws and traditions do not allow females to interact with strange males, without the presence of a male relative (husband or blood relative who are related closely to the woman). This is especially observed for women who need to travel long distances which might entail contact with strange men. This Islamic law is not always practised in the urban centres (out of necessity). It becomes, however, very significant in the rural areas, because a) the traditions are observed more frequently, and b) long distances are being travelled in sparsely populated areas.

As a Moslem, the unacceptability of my position as a researcher, who had to interact with strange men continuously and travel long distances, became quickly realised. What this meant in real terms was to have a male relative accompanying me at all times. This of course could not be managed easily. In fact my early arrangement with an elderly male relative was abandoned on the second day, due to the physical fatigue he experienced. It became a daily problem, which involved many kind people, both males and elderly females (if no male relative could be found). The later

stages of the interviewing process allowed a nephew to accompany me for three weeks, and his place was taken over by my husband for a further three weeks. Even when these arrangements were followed, the whole process was socially questionable, and sometimes criticised.

2. The need for a guide would not be fulfilled by male members of Sajir, because of the aforementioned element. Various attempts to seek help in this regard were met by sincere apologies, and the remark that this is a very difficult situation. Attempts at soliciting the help of elderly females was also not acceptable to the local people. At one point I thought I might be successful in engaging the services of a local woman, mainly because I offered to pay for them, but this proved unacceptable to her family.

3. The interviewing process proved to be highly uncomfortable, both for me and my interviewees. Islamic beliefs dictates an elaborate covering and dress for women, which are not conducive to comfort for any long periods of time. The farmers were also ill at ease, and some were reluctant to enter a process that involves more than one hour of interaction.

The entry into an interaction with the farmers, moreover, typically took long to accomplish. This is because I was ushered to the female side of the house, and could only begin to interview after a series of messages back and forth from the males' sitting room. Nonetheless, the above difficulties

were overcome by the extreme generosity of the farmers, and their respect for the education.

4. Personal interviews with the local officials were conducted mainly through written messages and telephone conversations. Attempts at prolonged discussions were not encouraged, especially when it entailed more than the basic information and data. In fact, several bold steps to interview officials, by actually visiting their houses, were graciously turned into pleasant social visits with the females of the family.

What this meant was not only an exclusion from the working place, but also an inability to gain extensive second hand knowledge by way of prolonged discussion.

5. Interaction with the bedouin farmers was also sometimes hampered by my local identity. The problem was not in being a sedentary from Al-Burud as such; many sedentaries live and work in Sajir after all. It was rather due to the atmosphere of rivalry and distrust between those neighbouring communities. Familial connections were also elements to be tackled and tolerated. Some particularly unpleasant encounters were explained later as arising from tension between families. Moreover, the residents of Al Burud criticised me openly for being more interested in Sajir's community rather than my own.

6. The bedouin farmers and the local officials who agreed to extend a helping hand were always gracious and chivalrous,

but a mite condescending. Inquiries were not always treated seriously, and answers could be given flippantly. The implications of a woman extending beyond the male-female divide, especially on issues relating to public life, become sometimes a diversion and a source of mirth. In some instances that was a useful attitude, because particularly generous and helpful men were expansive and unstinting in their effort to educate me about local matters. This attitude, however, was always irritating and sometimes limiting.

In listing the above problems, I do not mean to establish an image of struggle, or a particularly hard fight to establish legitimacy, and an eventual success against all odds. In fact it is hopefully a successful example of the ability of a female researcher to work within the context of a Moslem and traditional society. The project would not have been conceived without the existence of Saudi educational institutions (my sponsoring university for example), which advocate women's education. The help of the enlightened local men, especially those playing a key role in the research process, allowed me to bring my project to life, and (I hope) contribute in a modest way to the accumulation of knowledge.

My intentions here have been to highlight the pitfalls that a female researcher might encounter; and also to point out some significant aspects of the society and how these reflected on the actual process of the research, both in terms of limitations and implications. I hope to have drawn attention to two issues: (1) a female researcher investigating public versus private aspects of social life, and (2) the

need to be reflective when choosing the locality of any research. Some of the problems could have been lessened if the researcher was not a member of the local scene. The roles and codes of behaviour for a female researcher (which are the major issues here) can be relaxed for a "stranger", and deviant behaviour can be more easily forgiven and/or undamaging to her life.

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11. Verbal accounts of three elderly original founders of Sajir in the summer of 1984.
12. See Al-Raihani, A, *Ibn Saud of Arabia: His People and His Land*, London: Constable and Co Ltd, 1928. Also Habib, J, op cit, P.145.
13. Most of the elderly original founders interviewed in Sajir preferred to ignore other past sheiks, and military leaders, who were led astray during the Ikhwan rebellion (1929-1930). These leaders fought against Ibn Saud in Al-Sibila, and were defeated with the more prominent rebels. They also chose not to relate the fact that Ibn Mohya (the father of the present Amir, and the first Amir of Sajir after 1930) was exiled from Sajir during that period, It is obvious, however, that at least part of the settlers in Sajir were in open rebellion against Ibn Saud during the late 1920s, and that Al-Muhaiya supported Ibn Saud against them. Later Ibn Muhaiya was established as the Amir of Sajir, and was given the land for the purpose of distribution among his people (Al-Hanatish). The leaders who fought against Ibn Saud were: Ibn Surham, Ibn Fazaan, and Ibn Ramhah.
14. This village must not be confused with the bedouin settlement for the Harb tribe, also called Al-Burud, in Gasim. This Harb bedouin hijrah was engaged in the Ikhwan battles, and used to supply around 1,000 warriors.

Chapter Four

The Agricultural Sector

INTRODUCTION

1. Relevance To This Work

The study of the agricultural sector in Saudi Arabia is vital to this work for two sets of reasons. The first set is derived from the nature of pastoral nomadism and the actual sedentarisation practices of nomadic groups in Saudi Arabia. As seen in the previous chapters:

1. Pastoral nomadism in the area can be considered as a multi-resource system, which include agriculture as a major ingredient of these resources .
2. Settlement in agricultural Hujar, villages and hamlets has been the dominant form of the sedentarization process in the Arabian Peninsula, and especially favoured by the Saudi sedentarization policies.

For these two reasons alone, it is imperative that we gain a proper understanding of the sector in order to evaluate the quality of change affecting the nomadic groups through sedentarization. There is, however, another set of reasons which makes it even more imperative that we look closely at this sector of the Saudi economy, starting from the land reforms to the development policies. This is because of the following:

1. The "Encapsulation" process of the nomadic groups (see chapter 2) can be affected, not only through the imposition of a larger economic structure on the more limited one of pastoral

nomadism, but also through the introduction of changes that can block the mechanism for its social reproduction and cohesion. In Saudi Arabia the land reforms have been the tool for such a process, as well as the key element that helped in the restructuring of the rural and agricultural sector. The changes introduced by the land reforms and distribution policies changed the balance between the economic systems traditionally practiced by the Saudi rural population. It also altered the landholding pattern traditionally dominant in Saudi Arabia. The nomadic groups were the most affected by these land reforms. The whole of the agriculture sector, however, began to experience a slow process of change as regards land utilization, which became apparent in the 1970s after the agricultural sector began to receive the benefits of the modernization programme instigated by the government.

2. The middle of the 1970s marks the beginning of a centrally devised development plan for the agricultural sector. That plan came after a period of three decades of stagnation in terms of output and contribution to the national economy. This was brought about because of the dominance of the oil economy on all aspects of Saudi life. The agricultural development plan, which began in 1973 by the introduction of subsidies for agricultural machinery, accelerated in the years between 1974 - 1980. Subsidization increased and crop price supports were introduced, the most important of which is the wheat price support of 1979.

The agricultural development plans mark the second departure for the rural economies and population after the land reforms and distribution

policies. The increase in the use of modern agricultural technology, and the increase of agricultural output, coupled with the marketing opportunities, moved the sector away from its traditional nature to one steeped in modern relations of production. The ramification of such a change on the nomadic and traditional population is far reaching, especially for those who are just entering the agricultural sector. It is, therefore, imperative that we gain full understanding of the policies and programmes designed for agricultural development. The nomadic groups, although heavily involved in the market economy, generally had no prior experience of modern agricultural production. They are, therefore, completely dependent on what the state provides in terms of land, agricultural machinery and services.

This chapter will be divided into three sections. The first will deal with the agricultural sector, its main characteristics, human resources and physical resources. A great deal of discussion will be devoted to the underground water resources, which are seen as the key element for the development of agriculture in the Kingdom.

The second section will deal with land ownership under the traditional ideologies and economic systems. It will also discuss the Saudi land reforms and distribution policies which were the main force behind the newly emerged landholding pattern.

The third section will discuss the policies and incentives formulated by the Saudi government to stimulate the development of the agricultural sector. The effort will be mostly to assess and evaluate their effectiveness and impact generally.

2. Initial Consideration

One of the most important facts about the agricultural sector in Saudi Arabia is that it has been virtually isolated from the direct impact of the oil prosperity until the later years of the 1970s, and more particularly in the 1980s. This was the case despite the fact that 65 percent of the Saudi population in 1970 were characterized as rural. Approximately 70.8 percent of those or 46 percent of the total population, were employed in the Agricultural sector. In 1975, however, the agricultural sector contributed 3.7 percent to the national GDP. The insignificance of the agricultural contribution may be attributed to the dominance of the oil sector. It nevertheless reflects the unimportance of the sector generally in the national economy.

The isolation of the agricultural sector, which is agreed upon in principle by all commentators on the Saudi society, is viewed differently according to what the writer wishes to highlight. Raga'ei El-Mallakh writes:

"Agriculture has benefitted from increased oil revenues in the form of improvements, including expanded markets, cost reductions in transportation, and increased supply of modern inputs such as fertilizers, improved seeds, machinery and more readily accessible sources of credit." (1)

El-Mallakh also highlights the diminished role of agriculture in the Saudi developing economy, mainly because of the vast oil revenues. He contrasts its role with the role of the same sector in poorer countries. For El-Mallakh, the importance of developing the sector

stems from two elements. First, the release of labour to other sectors through increased productivity, especially to the industrial sector. Secondly, for fulfilling its role as the feeder of the population, which will increase self-sufficiency.

J.S. Birk and C. Sinclair, on the other hand, have stressed the traditional nature of the agricultural sector. They point to the fact that the Saudi economy was tiny prior to the 1970s oil price increase, and how rapidly it has grown since then:

"This is not simply an academic observation but one of immense practical significance. Because of the rapidity of growth, many Saudi Arabians have been left behind *stranded in the traditional sector.*" (2)

The writers point out the fact that the modern sector, which began to emerge in the 1950s, was confined to the construction of the state and urban infrastructure, as well as social amenities, such as schools, hospitals and clinics. Urban areas enjoyed the majority of investment expenditure in Saudi Arabia:

"The size of the country and the difficulties of communication meant that the impact of development was confined to urban areas where only a small proportion of the population lived. The bulk of the Saudi Arabian population neither saw the changed urban skyline, nor felt an appreciable change to their way of life."(3)

So what are the changes that affected the sector? Birks and Sinclair point to the fact that the majority of the Saudi population were

neither willing nor able to participate in the newly emerged labour markets, because of their continued lack of modern sector experience associated with urban living. Access, however, to grants, loans and money gifts was possible, which raised the income level of the rural people without the need to leave the rural areas.

"The monies directed toward the modernization of small-scale farming may have the contrary impact to that which is intended: they withdraw labour inputs from the land, but ensure that the population remains rurally oriented. As a result, the agricultural sector is preserved in its relatively unproductive form."⁽⁴⁾

El-Mallakh and Birks and Sinclair offer two points of view that are common among academic observers, and which differ in very important ways. One difference is that the former is more positive and optimistic, while the other is negative generally. The other basic difference is that El-Mallakh is focusing on the agricultural sector, as it relates to the dominant urban economies, while the latter writers are focusing more on the inner structure of the sector.

Both approaches, however, share one thing in common. Both were published in 1982, during the term of the third development plan 1980 - 1985, and both skip over very important and far reaching governmental policies for the development and restructuring of the agricultural sector. These developments include the land reforms, the agricultural policy of 1974, and the updating of the policy in 1979. All of these developments were operative in the later years of the 1970s and more particularly in the 1980s.

Subsidies have existed in the Kingdom for a long time, and are not wholly new even to the agricultural sector. 1948 marks the origin of formal subsidies in the Kingdom:

"The year 1368 A.H. (1948) may be regarded as a turning point in the history of development in Saudi Arabia, since it marks a period of historical innovation and the start of the government's new role in originating and leading the process of economic development ... Modern port facilities were completed in Jeddah (in 1368 A.H.) ... The first municipal electricity system was introduced for Mecca 1370 A.H. (1950). The first formal institution for higher education, the Sharia College, was opened in 1369 (1949) and the first teacher's training college in 1371 A.H. (1951)."⁽⁵⁾

Since then, the government has provided various kinds of direct as well as indirect subsidies and assistance to a large number of operations, organizations and groups in order to increase the goods and services in the country. These subsidies were in the form of educational subsidies, organizational subsidies, social benefit subsidies and agricultural and food subsidies. In 1965, the appropriation for direct subsidies was SR 605.7 million, or 19.53 per cent of the total budget.⁽⁶⁾ By 1981 the total amount of subsidies had increased 37 fold to SR 22 billion or 9.07 of the budget.⁽⁷⁾

Agricultural subsidies began in 1973, and a major subsidy for the Kingdom was adopted in 1975, and incorporated within the second development plan (1975-1980). This policy will be described more fully in the third section of this chapter. The major characteristics of the subsidies during this period is that they were geared generally

towards input subsidies, as opposed to output subsidies. Input subsidies includes land, which is provided free of charge, seed fertilizers, trees and machinery. Output subsidies, although existing in a small way, were limited in nature. The agricultural bank dealt with most of the input subsidies, while output subsidies were incorporated with the function of the Ministry of Agriculture.

1979 marks a significant departure for output subsidies and agricultural development as a whole. K. Khuthaila writes:

"By 1979, the government had realised what was happening to the agricultural sector as a result of the relative neglect, especially from a distributive point of view."⁽⁸⁾

What followed was a spectacular increase in the allocation for agriculture and water resources in the budget, from SR 1.854 in 1978/79 to SR 3.112 million in 1979/1980. Wheat also was singled out for a spectacular increase in output subsidies. This resulted in what might be called a wheat cultivation revolution, that set the tone for Saudi agriculture in the 1980s.

The guaranteed success of the wheat cultivation operation, coupled with the increased availability of credit and subsidies from the agricultural bank and the Ministry of Agriculture, has been instrumental in significant structural changes within the agricultural sector in two ways:

1. Some aspects of the sector, the production side specifically, have moved away from its traditional nature towards a productive sector based on modern technology and modern

relations of production.

2. The sector became attractive to the private sector and a high level of investments were directed toward it from urban based capital, as well as rural areas.

These elements will be discussed more fully in section 3 of this chapter, and will be demonstrated in chapter 6 on the agricultural operation in the study's region. The point made here is that the stagnation of agricultural production in terms of its nature and actual output, which has been an important characteristic for a long period of time, has unfortunately overpowered all other considerations, in the course of the study and investigation into this important sphere of the Saudi economy. Another important factor contributing to this has been the aridity and desert environment of Saudi Arabia, which is seen, up to the present, as a major obstacle to agricultural development. This was reflected in a scarcity of literature and/or brief and sketchy analysis, which may be valuable sources of information, but is not sufficient for a good understanding of the process of change. A comprehensive study of the agricultural sector past and present is still waiting to be written.

This chapter does not propose to fulfill that responsibility. It is merely an attempt to highlight and examine certain policies for development, that were vital in transforming the sector and very significant when it comes to the restructuring of the rural economy and population. These policies are the land redistribution policy as it affects the agricultural sector, and the policy for the subsidization of the agricultural operation.

SECTION I

The Agricultural Sector: The Human and Physical Resources

This section will be divided into seven parts, which will try to deal with all aspects of the agricultural sector. It will start with general characteristics and place ^{of agriculture} in the national economy and then go on to discuss agricultural land and population. An emphasis will be placed on the sector's water resources, because they are generally seen as the key element in any consideration of the development of the agricultural resources in Saudi Arabia.

1. General National Characteristics

There are important considerations on the national level that must be kept in mind when examining the state and the role of the agricultural sector in the Saudi economy. Some have already been touched upon in the preceding section, but these and others will be crystalized at this point:

- A. The Saudi economy is based on the revenues received from oil sales, so it is not dependent on agriculture as a source generating foreign exchange for imports of goods and services necessary for development. (9) Rather, the push for the development of the sector is seen as a means for the diversification of the economy, and a response to the pressures placed on the Saudi government to promote the well being of the rural population as can be seen in the third development plan 1980-1985:

"The need for a sound agricultural sector has long been recognized and supported by the government. This need for prudent level of strategic food production and the opportunities for good levels of agricultural incomes underlie the agricultural policies and plans of the government ... "(10)

The commitment of the government to such a scheme is apparent and is supported by the availability of financial and physical capital resources, but the process is urged on by the need to find a rapid solution to a prominent problem. The urgency of the problem led to the adoption of a rapid growth development plan. The speed with which this plan was formulated and implemented, and the radical nature of the changes that it proposes in relation to the reality of the sector, is at the very least overly ambitious. This point will be discussed more fully in the third section of this chapter.

- B. El-Mallakh highlights another feature of the Saudi economy that has direct reference in this case. He talks about the problem of the domestic market growth, or lack of it, necessary to absorb expanded output, that is often faced by poorer developing countries:

"Saudi Arabia's oil revenues provide an indirect but very important advantage in this respect as the domestic market is limited by size only. Income produced by the agricultural sector can be retained by the rural population, increasing purchasing power for the farmers which is reflected in stronger demand and

larger markets for the output of the non-agricultural sector."⁽¹¹⁾

El-Mallakh's assumption for the forecast of such a balance is based on the idea that the agricultural producers will be able to profitably sell all their products in the expanded market. This may be a reasonable assumption theoretically, but it does not reflect a proven reality. The level of importation and the lack of firm restriction on imported foodstuff must be considered. Another issue is the quality and price level of the national agricultural produce, and their ability to compete with untaxed, unlimited foreign importation. The Saudi entrepreneurs and traders have long been established within the Saudi social structure, and their interests could well represent a force in the Saudi economy, which might be in opposition to the interests of the agricultural operators.

- C. The development plans of Saudi Arabia have a clear-cut policy for the improvement of and the greater participation by the private sector for overall economic development. The emphasis is on:

"A major role in the development for private enterprise, especially in the progress of the productive sectors. The government will do its utmost to stimulate and assist private-sector activity."⁽¹²⁾

The commitment of the government to promote private enterprise is clearly demonstrated in the management of the development of the agricultural sector. Free granting of land to individuals

and companies, and generous loans for the setting up of agricultural operation as well as various forms of agro-industry, have been extended to the private sector.

This commitment, however, eliminated other options, which will be returned to at the end of this chapter, and has not been free of obstacles. The difficulties have been seen mostly in the area of marketing, which prompted the government to intervene in the case of wheat. The inclusion of a traditional sector into a free market modern economy was bound to be fraught with difficulties, especially if we consider the limitation of physical resources of the country (arable land and water), and the state of the rural productive forces in relation to skill and capital resources.

- D. In 1970 the "agriculture and nomadism" sector was traditional in nature. That was not only in terms of production, but also organizationally so. The rural population are the most conservative socially in the Kingdom. The isolation from the modern sector may have contributed to this characteristic. Birks and Sinclair claim that the opposite is true:

"The isolation of the rural population from the modern sector was thought, in an illogical way, to stem from a sound policy pursued by the ruling family who, whilst desiring modernity, felt that too great an involvement of nationals, particularly those from traditional environments, would be harmful to the Kingdom."⁽¹³⁾

This point of view might not seem as far fetched, if we

consider the history of opposition faced by the regime from tribal groups and the religious elements in the early years of statehood. Regardless of the reason for the traditional state of the rural population, the important point is that it has retained major elements of the traditional social structure. These are manifested in the retaining of traditionally based leadership organizations, which have been empowered with state approval. The regional organization and distribution of state services and apparatus has thus remained heavily influenced by traditional consideration. This had significant influences over the implementation of the policies originating from the urban based modern sector. The distribution of public land has been an area where traditional factors were most active (see section II in this chapter). Nepotism, tribal and inter-tribal rivalry have contributed to a restructuring of landownership, based on a traditional regional balance. This will be discussed more fully later. Landownership, however, is not the only area in which traditional values may be active. Access to regional state apparatus and services, in addition to the ability to assimilate those services, is another area potentially vulnerable to the dominance of traditional values.

Examples of this are the educational services (especially for girls), the extension services of the Ministry of Agriculture, the social service offices, and the Municipal services. All these services, if available, are open to controversy and/or manipulation, which may exist within the group or the region, or between various groups that share them. Developmental planning and policy making, theoretically speaking, must safeguard against these practices. Conflicting policy origin

(traditional versus modern) may be detrimental to a coherent developmental policy.

E. The vastness of Saudi Arabia has given rise to an impression that there can not be a high degree of competition over landholdings, be it agricultural, residential or for settlement purposes. This has been enforced by the state policy of distributing free land to Saudi nationals. The low population/land ratio has been another reinforcer of this impression. Considerations of this kind do not *emphasise the availability* of the physical and economic resources needed for agricultural activities, nor the suitability of areas for human settlement. Better indicators for population pressure over land are the following:

- a. Percentage of arable land with good terrain and soil.
- b. Availability of economic water resources for agricultural and residential purposes.
- c. The accessibility of the location, in terms of available services and marketing potential.

The first two of the previous elements will be elaborated on, when the water and land resources are discussed in this section. The third element of the accessibility of the agricultural location will be discussed in section III of this chapter when marketing is discussed.

2. Physical Characteristics of the Sector

Saudi Arabia is the largest continuous area of land that does not have

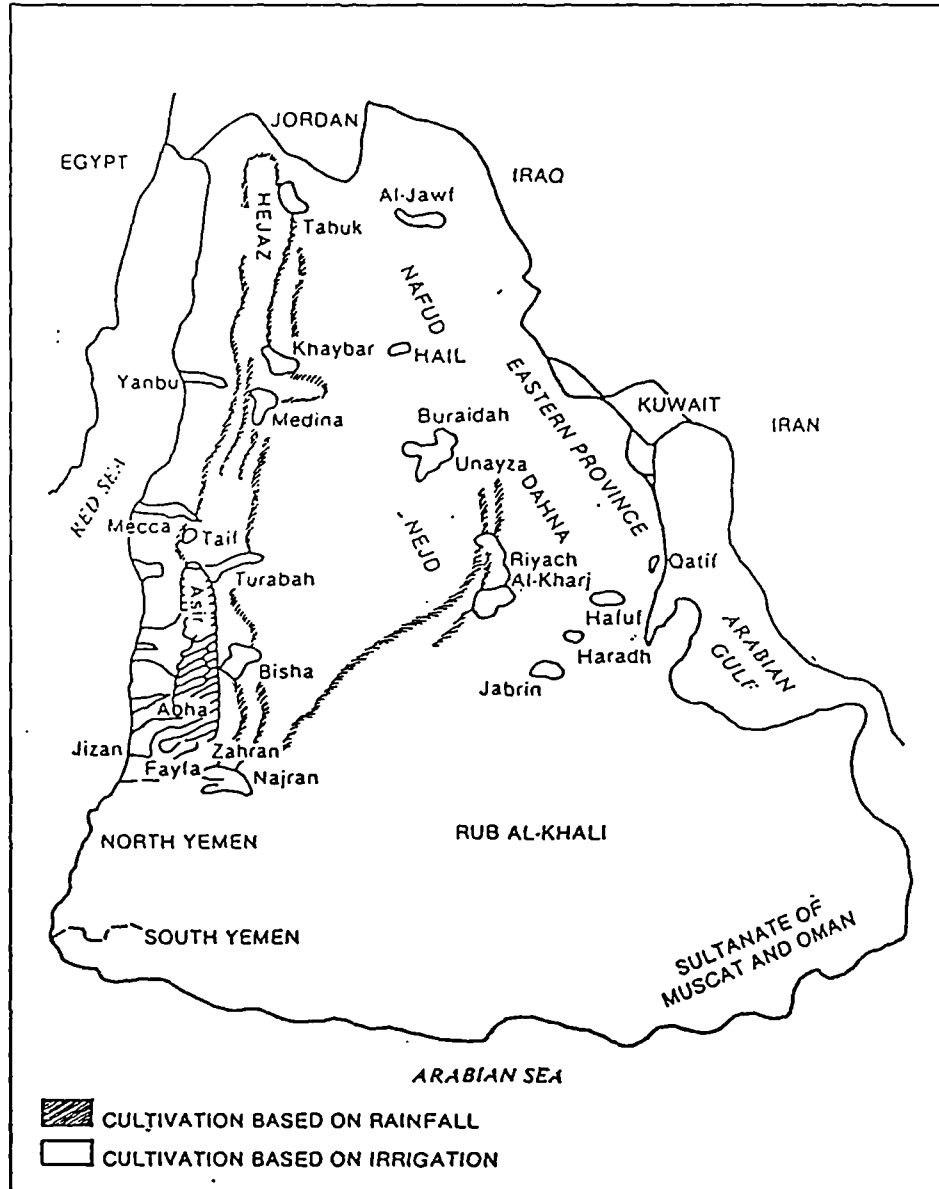
surface fresh water resources, in the shape of rivers or lakes. The vastness of Saudi Arabia (more than 2 million square kilometres or 200 million hectares) represent more than 1.5 percent of the globe's surface. ⁽¹⁴⁾ The cultivated land constituted only 0.13 percent of the total area in 1965, while the total area utilized for agriculture, range and forest represented 2.335 percent of all lands.

Saudi Arabia's environment is characterized by a dominant desert climate. The temperatures are high, rising to over 40°C (and as high as 50°C) during the summer in most of the country, except the Western highland strip (see figure 4.1). There is also a great deal of change in temperatures between summer and winter and day and night (winter night temperatures may fall below zero). 99 percent of the country is an arid or semi arid zone, utilized only for grazing when the rain falls and grazing plants grow. The annual average rainfall does not exceed 100 mm. The Western highland strip is the only exception to this, because it is affected by monsoons which may raise the average rainfall up to 500 mm. The northern parts of Saudi Arabia, moreover, may be affected by Mediterranean wind systems, with an average annual precipitation between 25 to 75 mm. Rain fall of this level is not important for agricultural cultivation, but is very important to nomadic pastoralism.

The general scarcity of water fall, and the high evaporation ratio (due to high temperatures) and low relative humidity have contributed to drought for periods of up to seven years. Saudi Arabia is also subject to high wind which carries sand and soil and reduces precipitation effectiveness.

The soil conditions generally are characterized by salinity. Salts are

Figure 4.1 Main Agricultural Areas of Saudi Arabia



Source: Ramon Knauerhase, *The Saudi Arabian Economy*, (New York, Praeger Publishers, 1975), p. 112. Reproduced in El Mallach, R., *Saudi Arabia, Rush to Development*, Croom Helm, 1982, P.81

found in all surface and underground water, and they accumulate in the soil as a function of years of irrigation, the high level of evaporation and poor drainage. The presence of saline soil conditions can directly damage some plant growth, and may also lessen its permeability to a great degree and make it unfit (physically and chemically) for cultivation.

There are three very arid desert zones in Saudi Arabia (see figure 1):

1. The Rub Al-Khali (empty quarter), the largest sand desert in the world which measures over 1000 km from east to west and 500 km from north to south.
2. Nafud, which extends to the north west. This desert is characterized by a red sand with broad flat salty stretches.
3. The Dahana, a long arched strip of sand dunes linking the Nafud and Rub Al-Khali.

3. The Traditional Irrigation System

From the previous description, it is quite clear that almost all of the land in the Kingdom is too dry to support more than periodic livestock grazing, and true grasslands are almost non-existent. Ground water, however, has been the basis for agricultural production for most areas in the Kingdom. The extraction of water traditionally has been dependent on surface ground water and was done manually. These types of wells were quickly depleted due to the evaporation factor and also because they were mostly dependent on the rain fall level. The early breakthrough in agricultural production began with the introduction of

deep artesian wells that were dug deeply into the ground to reservoirs of underground water. The first such wells were dug by the oil companies during the exploration period (1930s). By the 1960s such wells had spread to most agricultural areas of the Kingdom, as well as urban ones. The change from traditional to modern water extraction methods remained for a long period of time the only marked change in the agricultural operation. Pumps and engines needed for such conversion were privately purchased, but were later subsidized by the government (since March 1974) for 50 percent of the cost.

Irrigation remained largely traditional up to the late 1970s, possibly the early 1980s. It was based in all regions (excluding the Asir region, where *dry farming was possible*) on the *flooding method*. This method centred on the use of the open canal system. Central canals carry the water from the water source to secondary canals made of mud. When a particular cropping area is being irrigated the canals are broken manually to allow the water to flood the plot.

After irrigation is completed, the canal is sealed off again, and another plot is irrigated in the same way. The central canals, and the secondary ones, were traditionally constructed of packed mud. Later development allowed the farmers to layer the central and secondary canals with cement which reduced greatly the level of maintenance and drainage of water.

This traditional method of irrigation was characterized by the following:

1. Labour intensity: The level of family or hired labour needed

for such a traditional agricultural operation is high in comparison to the ones based on modern technological advances. The gradual withdrawal of the national labour force from this sector because of the opening up of other employment opportunities (i.e. government service, military organisation and the service sector) contributed to reduced availability of farm labour. This in turn resulted in higher wages for farm hands, especially in the 1960s and the 1970s, when migrant labour from the southern states of the Arabian Peninsula flocked to find work in Saudi Arabia. The higher wages in the majority of cases could not be paid by the rural population, which resulted in total abandonment or neglect of the farming operation.

2. Limited Growth Potential: The traditional method of irrigation is limited by its own nature. Land holdings were traditionally small, and still are at present.

Hassan Hajrah (the author of Public Land Distribution in Saudi Arabia, and who served many years in the Ministry of Agriculture) presented some data that showed that 55.6 percent of the total number of land holdings did not exceed 1 hectare, while 91.9 percent did not exceed 10 hectares. Only 8 percent constituted holdings in excess of 10 hectares.⁽¹⁵⁾ The limited nature of the method appears clearly from the tendency for small landholdings. The availability of water or lack of it may also contribute to the limited growth potential, in terms of the size of the cultivated land, if not output.

3. High Evaporation and Drainage Levels: The flooding method of

irrigation has been criticized as wasting valuable water resources. This is because the open canal system is prone to high evaporation levels, which is a common feature of this hot desert climate. The level of drainage, moreover, is high before the irrigation operation is completed or even during its execution.

4. In addition to the previous point, which may be categorized as negative, the flooding method is currently recognized as one means for combating the gradual salinization of the top soil in the arid and semi arid zone. Flooding the soil with excessive amounts of water facilitates drainage of harmful salts before evaporation takes its course. This had not been emphasised before the introduction of the sprinklers system, but gradually became more apparent as the irrigation methods underwent great development in certain parts of the Kingdom during the 1980s.

These developments were based on the introducing of technologically advanced irrigation systems (sprinklers and central pivot irrigation systems), which did away with the first three problems of irrigation. A full discussion of this will follow in chapter 6, because the new methods of production could be included in the new formation of the agricultural structure and are a direct result of the state's push for growth.

4. The Population and Output of the Agricultural Sector

Khalid Majid Khuthaila wrote in 1984:

"The importance of the agricultural sector of the Saudi economy

is not so much reflected in its share in the GDP of the country as in the percentage of the population and labour force engaged in activities characterised as part of the agricultural sector."⁽¹⁶⁾

Khuthaila's contention is unambiguous and fairly agreed upon by all commentators; but when it comes to actual statistics regarding the rural population, particularly the agricultural one, figures vary greatly, even in the case of official Saudi statistics. Let us consider some examples of the relevant statistics. The Economic Report published by the central planning organisation of the Kingdom pertaining to the years 1970-1971 informs us that the percentage of persons working in the agricultural sector has dropped from 46 percent (465,000 persons) of the total male work force in the year 1966, to about 40 percent in the year 1970. Alternatively, according to the Saudi Arabian Monetary Agency annual report in 1981, 46 percent of the labour force was engaged in the agricultural sector in 1970, but 65 percent were characterised as rural. Yet again, the FAO production yearbook for 1970 puts the agricultural sector at 66 percent of the Saudi population - and subsequent issues up to 1978 maintain that the agricultural sector does not fall under 61.4 percent. J. S. Birk and C. A. Sinclair put the percentage at 51.7 of the total labour force in 1975 (530,000 persons).⁽¹⁷⁾

The lack of coherence in the official statistics may stem from the following:

1. The lack of accuracy of the national census procedure, due to lack of experience and training for the personnel.

2. Confusion in the actual defining of the agricultural sector, in terms of including and excluding the nomadic population within that sector. In 1970, the nomadic sector was estimated at 15 percent of total population.
3. The dispersed nature of the Saudi rural population and the frequent movement of tribal groups, either for pastoral activities or between settlement areas inhabited by the same tribal group.

The Saudi official definition of the agricultural sector includes nomadic agriculture, settled farming, fishing, range resources and forestry. All the statistics pertaining to absolute number and percentages of the labour force in agriculture show that it is declining, sometimes dramatically in percentage terms if not in real numbers. The Economic Report of Saudi Arabia in 1980 reported that in 1970 there were 445,800 persons or 40 percent of the national labour force in agriculture. By 1975 the number of persons was 426,100 or 28 percent of the national labour force. Ministry of Planning estimates for the third development plan (1980-1985) put the decline in real numbers at about 100,000 persons, from 39.8 percent to 24.2 percent for 1975 to 1980. (see table 4.1).

The share of the agricultural sector in the GDP has been decreasing relative to other sectors, but not in absolute terms. In 1963, agriculture contributed 10.1 percent of GDP. By 1969, it had declined to 6.1 percent. The trend continued in the 1970s where the share reached 0.9 percent in 1976/77. It is now fifth in terms of importance after oil, government, commerce and industry. The value of agricultural produce marketed, however, increased from SR 1.0 billion

Table 4.1 Employment by Economic Activity, 1975 and 1980

Economic activity	Employment				Average annual growth rate 1975-80 (per cent)
	1975 (thousands)	1975 (per cent)	1980 (thousands)	1980 (per cent)	
1 Producing sectors					2.2
Agriculture	695.0	39.8	598.8	24.2	-2.9
Mining	3.4	0.2	7.3	0.3	16.5
Oil and refineries	27.4	1.6	36.0	1.5	5.6
Manufacturing	74.4	4.2	104.2	4.2	7.0
Utilities	16.1	0.9	31.5	1.3	14.4
Construction	172.3	9.9	330.1	13.4	13.9
	988.6	56.6	1,107.9	44.8	
2 Services sectors					15.3
Trade	153.6	8.8	310.6	12.6	15.1
Transport	114.5	6.6	214.6	8.7	13.4
Finance and business services	13.1	0.8	34.8	1.4	21.6
Community and social services	230.0	13.2	482.7	19.5	16.0
	511.2	29.3	1,042.3	42.2	
3 Government ^a	246.7	14.1	321.0 ^b	13.0	5.4
Total (1+2+3)	1,746.5	100.0	2,471.2	100.0	7.2

Notes: a. Civilian employment only. b. This government figure includes an estimated 49.6 thousand daily workers not classified as civil servants.

Source: Ministry of Planning Estimates for the Third Development Plan (1980-5)

Table No. 4.2 - Changes in Agricultural Production ⁴⁴

Crop	Area 1369/70H (1949/50) in Hectares		Area 1376/77H (1956/7) in Hectares		Area 1380/83H (1960/3) in Hectares	
Field crops	67,838	71%	155,400	79%	175,929	72%
Vegetables	04,128	4%	003,000	1%	033,132	14%
Dates	21,572	23%	023,900	18%	022,281	9%
Fruits	02,226	2%	005,100	2%	011,487	5%
Total	95,764	100%	187,400	100%	242,829	100%

Source: Hajrah, Hassan, Public Land Distribution in Saudi Arabia, Longman Group Ltd, 1982, P.62.

in 1970/71 to SR 1.8 billion in 1976/77 ⁽¹⁸⁾ (These figures are not at constant prices, so inflation may have played a part in the observed increases).

Traditional agricultural production centred on cereals and dates. Wheat, sorghum and millets were the most prominent of the field crops. Field crops are widespread in the Kingdom. Wheat and barley are grown in all the regions, especially Qasim, the north and the centre of the country. Sorghum and maize are grown in the southern region (Asir, Jizan and Najran). Alfalfa, however, is the most dominant single crop in the Kingdom. It is usually grown underneath palm trees, and if not used domestically as animal feed, it can bring a high market price. Vegetable and fruits are usually grown in settlements and villages close to urban markets, where transportation is most convenient.

Table 4.2 shows the changes in agricultural production from 1949/50 to 1960/63, in terms of estimations of hectares per crop. What it shows is an increase of total area. The area for date production remained constant, while field crop areas increased significantly without changing their relative share. The most substantial changes were in vegetable cropping in the 1960s because of their high profitability at the time.

The lack of accurate information on food production is a major obstacle to presenting a real picture of the situation, but it appears that the 1970s saw further increases in vegetable and fruit production, while wheat became the most important cereal produced in the country, with an annual growth rate of 9.8. The year of 1979, however, saw a sharp increase in the wheat produced, which was due to the output subsidy provided for the wheat crop (see table 4.3).

TABLE 4.3LAND AREA USED FOR GROWING WHEAT, 1398 TO 1404 A.H.

YEAR		ESTIMATED HECTARES	ANNUAL GROWTH RATE
1403/04	83-84	506,000 *	175% *
1402/03	82-83	184,000 *	168% *
1401/02	81-82	68,571	181%
1400/01	80-81	24,410	160%
1399/1400	79-80	9,395	88%
1398/99	78-79	5,001	431%
1397/98	77-78	942	-

* Projected using the growth rate of 175%

Source: Unpublished study submitted to the Saudi Arabian Agricultural Bank.

5. The Arable Land

Arable land is the agricultural area showing cultivatable land with adequate water resource. In 1970/71, there were 524,725 hectares cultivated in Saudi Arabia, of which 403,654 hectares were dryland and 78,362 hectares were irrigated. That means that almost 80 percent of cultivated land was situated in the South Western region of Asir, where dry farming is possible. Table 4.4 shows that there was a 12.8% increase in cultivated land in 1975/76. The increase, however, was mainly in perennial and orchard crops. The uncultivated area was shown to be larger than the cultivated one, which was seen as a good basis for agricultural expansion.

Recent studies have also shown that, contrary to popular opinion, the Kingdom has a large amount of land which can become cultivable, provided the right amount of water were available to it. Soil and water surveys were completed in 1970 ⁽¹⁹⁾ and they showed the following:

1. Due to the availability of ground water, there are good opportunities in Saudi Arabia for utilizing much of the public arable lands which have not been cultivated previously.
2. It is possible to raise the productivity of present cultivated areas through the application of chemicals, improved seeds, machinery, agricultural methods and development of agricultural production facilities.

From the previous points, it seems clear that expansion on the strength of availability of underground water is concentrated mainly in areas

TABLE 4.4

TOTAL LAND AREA, AND SIZE OF FARMS IN SAUDI ARABIA

1390/91 AND 1395/96 A.H. (1975/76 AND 1970/71)

	1975/1976 1395/96 A.H.	1970/1971 1390/91 A.H.	TOTAL CHANGES IN 5 YEAR PERIOD
Total Land Area (Hectares)	1,213,462	1,391,274	(-) 12.8
Uncultivated Hectares	621,549	866,549	(-) 28.3
Cultivated Hectares	592,001	524,725	12.8
Dryland Hectares	357,713	403,654	(-) 11.4
Irrigated Hectares	91,126	78,362	16.3
Perennial & Orchard Hectares	143,162	42,709	235.2
Number of Farms	180,670	180,789	(-) 0.1
Cultivated Area as a Percent of Total Hectares	48.8	37.7	29.4
Uncultivated Area as a Percentage of Total Hectares	51.2	62.3	(-) 17.8
Average Size of Cultivated Hectares	3.28	2.90	13.1
Average Size of Uncultivated Hectares	3.44	4.79	(-) 28.2

Source: Ministry of Planning, Third Development Plan, 1400-1405 A.H. (1980-1985 A.D.), Riyadh, Saudi Arabia, 1980, Table 4-4, p. 139. Quoted in unpublished report submitted to the Saudi Arabian Agricultural Bank.

previously uncultivated (extensive growth). The presently cultivated areas may achieve growth in production by better agricultural practice (intensive growth). Regional surveys conducted by the Ministry of Agriculture, and presented by H Hajrah, predicted that 82,550 hectares of previously uncultivated land could be added to 396,467.4 already cultivated. This means that the agricultural area could be expanded by approximately 20%.⁽²⁰⁾

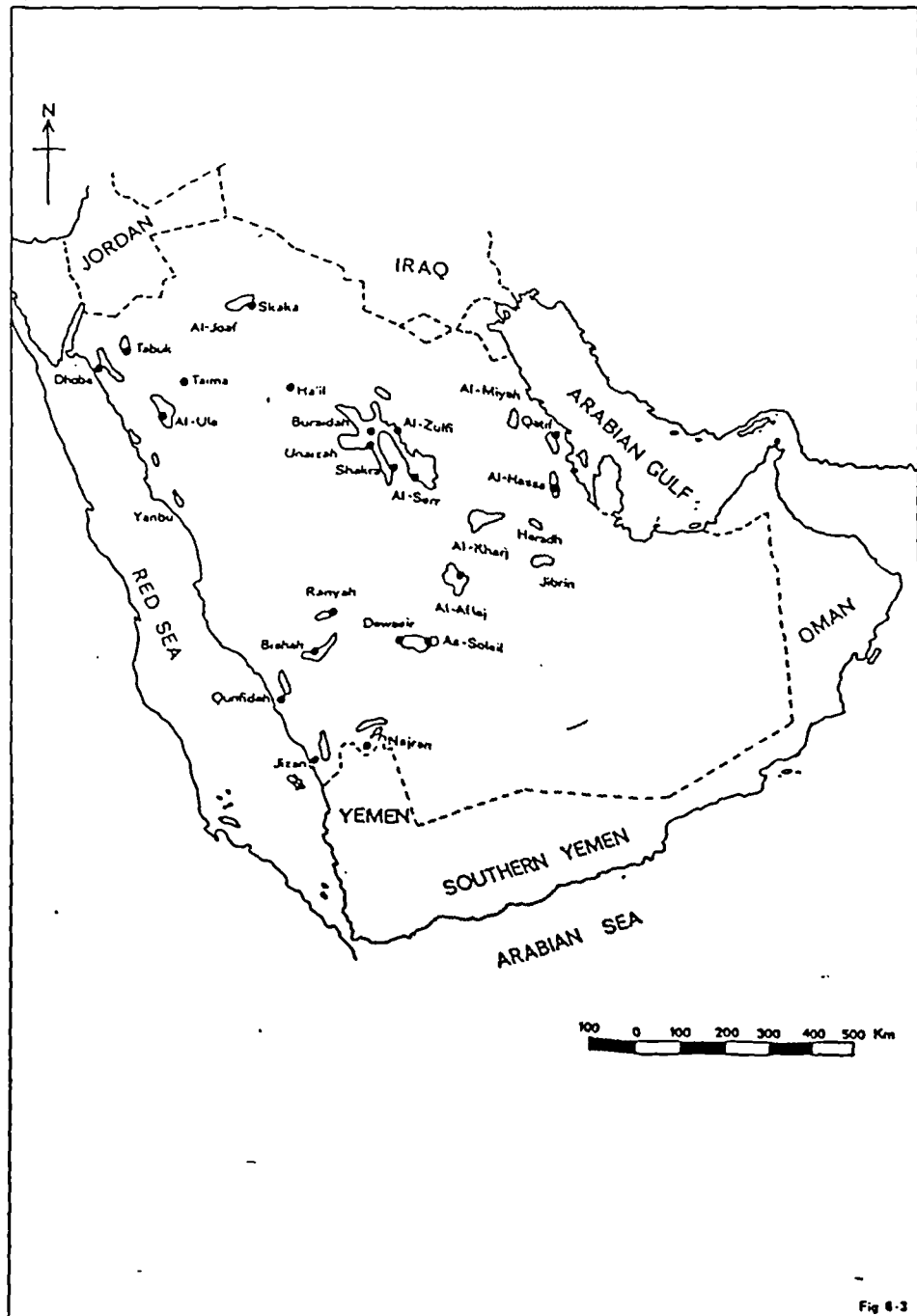
Hajrah's figures were based on six studied areas out of eight (two were unsurveyed at the time), and they are represented by figure 4.2 showing the areas of expansion. A comparison between figure 4.1 (showing the existing agricultural areas in Saudi Arabia) and figure 4.2 would show that expansion is mainly in the already identified and traditional agricultural areas.⁽²¹⁾ That suggests to this researcher that the water resources are already being exploited in the majority of cases. The figures presented by Hajrah, as well as the previous point, makes it very hard to accept the extreme optimism of Ragai El-Mallakh, who predicted that the half million hectares under cultivation in 1971 would be able to reach 4.5 million hectares according to the study of arable land and water resources.⁽²²⁾ This can be disputed even when we consider the unsurveyed areas, because these two areas are the desert area of the Rub Al-Khali (empty quarter), and the Arabian shield. Subsequent surveys of the latter region have shown very low water potentiality and it was not recommended for agricultural expansion.

6. The Water Resource: A Scarce Commodity

The water resources of Saudi Arabia, and agricultural expansion based on the availability of these resources, is not without controversy⁽²³⁾. The discussion revolves around the following points:

Figure 4.2

ZONES FOR AGRICULTURAL EXPANSION



Source: Hajrah, H., Public Land Distribution in Saudi Arabia, Longman, 1982, P.89.

1. The nature and size of the water resources.
2. The viability of long term and extensive agricultural expansion based on water availability.

Underground reservoirs of water are the main supplier for irrigated agricultural activities. The sea water desalinization plants, based on the east and western coasts, are too far and expensive to be considered for agriculture expansion in the northern and central regions of Saudi Arabia.

They are also limited in their productive capacity. Competition for water between urban, industrial and agricultural uses places a great pressure upon existing *underground water resources*. It is, therefore, very important to establish clearly and coherently the level of water availability for agricultural purposes, and to regulate the use of those resources for the betterment and continued existence of the sector.

As seen above, the studies conducted by the Ministry of Agriculture showed that the water availability justified a 20% expansion rate on existing agricultural land. Table 4.3 shows data originally from the Grain Silo and Feed Mill Organisation, which purchases wheat from producers. The figures were estimated by analysts from the Agricultural Bank to show the areas used for growing wheat alone in Saudi Arabia. The table shows that there have been spectacular increases in the area for wheat cultivation since 1980/81. In 1981/82 alone the area increased by 181% over the previous year to a total of 68,571 hectares. The projection by the Ministry of Agriculture for agricultural expansion specified 82,550 hectares of arable land (land

with suitable soil and sufficient water supply), which means that by 1982/83 the projected figure of 184,000 hectares is more than double the recommended expansion rate. The year 1983/84 would show more than five fold increase over the expectations for agricultural cultivation. These projected figures were realised and even surpassed in 1982/83 and subsequent years.

The above suggests various explanations: a) that the estimates of 1970 were on the conservative side, b) that subsequent surveys showed greater water resources, or c) that the expansion outstripped available water supply. Any economic expansion must be sustainable in the long run to achieve its objective and to benefit the human forces involved in it. This point was brought forcefully to this researcher's attention during the period of field work, mainly because the region studied (which is an expanding agricultural region) has experienced in the past eight years a substantial lowering of the groundwater level.

Water level in the south of this region used to be reached in wells at 60-61 meters below the surface in the late 1970s. At the moment the water level has dropped to 180 meters below the surface. (An average yearly drop of about 15 meters). The depth of wells however, has not been changed yet (450-500 meters), and one official in the region said that it is possible to reach other reservoirs of water if wells were dug to about 1000 meters below the surface.⁽²⁴⁾ The drop of the water level has caused some farmers to lose a whole year's crop of wheat.⁽²⁵⁾ When the problem of water shortage is encountered by the farmer, an expensive and time consuming operation can be effected to lower more pipes into the well until it reaches the water level. The pump, also, is sometimes lowered deeper into the well to allow it to pump to the surface.

Asser, where Sajir is located, is a traditional and long established agricultural region. It is also one of the most expensive regions in the Kingdom in terms of cost and depth of wells (See table 4.5). There are also variations within Asser as to the level of water in the wells, which is most shown in table 4.5. Some farmers in Sajir and the surrounding areas, however, have expressed concern about the viability of continued and sustained agricultural activities in the region. Their concern has been echoed by some specialists in the field, although the government's official surveys remain optimistic. In 1987 surveys by King Faisal's University in Dhahran (in the eastern region) were very positive about water availability.⁽²⁶⁾

7. The Nature of Groundwater

Abdulrahman Al-Zaidy discussed groundwater resources in the Kingdom at some length.⁽²⁷⁾ His study has been extremely useful for furthering this researcher's understanding of the complicated geographical issues involved here. The country, geographically speaking, is divided into two sections:

1. The Arabian shield, which corresponds mainly to the western areas of the country. This area is characterised by the existence of two agricultural areas. One is the mountain zone (south west) which receives about 200 mm of rainfall and over which dry farming is possible; the other is the irrigated agricultural areas of the desert and the coastal regions. The irrigated regions receives the runoff water from the monsoons affecting the higher mountain zone, which collects in some areas as shallow infiltrated alluvial aquifers.

Table No. 4.5 Cost of land preparation for development.

Area	Criteria (m)				Cost SR/m			Cost (000 SR)			Site Development
	Well Depth	Casing Depth	Static Water Level	Pump Level	Drilling	Casing	Drilling + Casing	Well	Pump + Engine	Well + Pump + Engine	
Al-Joaf	100	10	flow	—	40	100	50	5	—	05	18
Skakar:											
Tabuk F	150-200	5-10	10	35	45	55	46.4-48.7	8.3	18.6	26.9	39.6
Saq. F	700	5-10	flow	—	45	55	45.4-45.8	31.9	—	31.9	44.9
Tabuk	300-350	80-100	10 flow	35	70	60	83.7-90	28.2	18.6	46.8	59.8
Taina	120-150	10	35-40	38	60	60	64-65	8.7	20.8	29.5	42.5
Al-Ula	100	10	20	25	60	60	66	6.6	15.8	22.4	35.4
Oasim:											
N. Buraidah	650-950	550-600	15 flow	15	45	55	77-97	69	12.5	81.5	94.5
Buraidah											
1. Saq. F.	700	530-550	flow	15	45	55	86.3-88	60	12.5	72.5	85.5
2. Tabj. F	240	180	flow	15	45	55	86	20.6	12.6	33.2	46.2
Unaizah											
W-side Tabuk F.	150-200	50-80	20-30	35	45	45	58.7-74.4	11.6	18.6	31.2	43.2
E-side Tabuk F.	150-200	5-10	20-30	35	45	45	46.4-48.5	8.3	18.6	26.9	39.9
W-side Saq. F.	700	50-80	20-30	35	45	45	48.9-51.3	32	18.6	50.6	63.6
E-side Saq. F.	700	5-10	flow	—	45	45	45.5-45.8	31.9	—	31.9	44.9
Habil	170	25	100	100	70	70	80.3	13.6	41.2	54.8	67.8
Richah	60-70	20	10	15	—	—	21.4-28.6	17.5	12.5	30	43
Najran	40	40	20-25	30	100	80	180	7.2	17.5	24.7	37.7
Wadi-Dawasir	250	100-120	10 flow	10-15	80	75	110-116	32.5	12.5	45	58
As-Sulail	250	100-120	5 flow	5	80	75	110-116	32.5	09	41.5	54
Al-Hassa	137	36-48	flow 10 m	10	—	—	109	15	10.8	25.8	38.8
Oatif	100-121	58-69	flow	—	—	—	132-160	16	—	16	29
Al-Kharj	120	120	10-20	20	70	60	130	15.6	14.1	29.7	42.7
Shakra: lower Khurmah	150	100	10-20	20	60	55	110-120	14.5	17.5	32	45
Al-A'raj	120	60-80	15-30	35	60	55	87.5-96.6	11	18.6	29.6	42.6
Al-Zulf	120	120	30 flow	30	90	60	150	18	17.5	35.5	48.5
As-Ser	400-450	330-350	30 flow	35	45	55	85.5-93	38	18.6	56.6	69.6

Source: Hajrah, H., Public Land Distribution in Saudi Arabia, Longman, 1982, P. 120.

2. The Arabian shelf or the sedimentary formation, which covers about two-thirds of the Arabian peninsula and corresponds to the north, east and south of the country. This part of the country is an area of irrigated farming. The groundwater supply comes from underground aquifer systems, which house ancient fossil water formations. There are about 30 known sedimentary aquifer formations which can be grouped into four major systems.

The first two, Paleozoic and Triassic, are the oldest formations and are closed systems; this means that there is no seepage from them to other systems, and that they hold on to infiltrated water. The third and fourth aquifer systems, the Cretaceous and the Eocene, are open systems, which means that water from the Cretaceous is transferred into the Eocene (the largest system of the four) through sub-surface faults. The water from the Eocene reaches the land surface through terrestrial and submarine springs in the eastern part of the country, and the Arabian Gulf.

This brief description of groundwater resources opens up the discussion to the controversy (scientific and unscientific) of whether or not those groundwater resources are renewable. Peter Beaumont, in his study of water resources and their management in the Middle East, states the basis of the controversy.

"With these large aquifer systems there is dispute as to the degree to which natural recharge is occurring at the present day in extreme arid areas such as Egypt and

Saudi Arabia. Part of the problem is that we still have little idea as to how much runoff is generated in these regions during the rare, but often locally intense rainfall events".⁽²⁸⁾

The two closed aquifer systems, the Palaeozoic and the Triassic have been identified as mainly fossil water aged between 16,000 and 35,000 years. Water salinity has been shown to increase with the age and depth of the aquifer system. ⁽²⁹⁾ Tests of water salinity can be used, therefore, as an indicator for depletion rates, along with the level of the water table. Another indicator can be through measuring the rate of discharge and recharge in the aquifer system. Discharge occurs through wells in the closed system and through wells and springs in the open ones.

The rate of recharge is disputed among scientists. Beaumont lists some studies that have shown that the rate of recharge may be greater than what was previously believed. These studies have shown that even when annual precipitation totals are as low as 80 mm, about one quarter of this amount can percolate downwards and recharge the groundwater systems (Dincer, Al-Mugrin and Zimmerman 1974). A. Al-Zaidy, on the other hand, lists other studies that show that there is little or no recharge in the aquifer systems (Pike 1970, El-Khatib 1974). Al-Zaidy furthers this argument through listing the following facts:

1. Analysis of water samples from different aquifers, in different parts of the country and at different depths, had shown that the age of the water can be estimated to be from 22,000 to more than 30,000 years.

2. Natural recharge occurs only in the shallow groundwater, whenever runoff water exists and the soil conditions allow it to collect in shallow aquifers (usually in the western side of the country). Fresher water relatively speaking has been found in those aquifer systems.

From the discussion above, it appears that up to 1981 (when the studies were published), there has not been a consensus of opinion among scientists regarding the level of the renewability of the groundwater resources in the Kingdom. Agricultural development is not the only area for which water is vital; urban and industrial development also have great demand for a steady and dependable supply of water. The semi-arid and arid zones have always been regions where man's chief aim has been the provision of a sufficient volume of water for agricultural and domestic needs. Water management, however, has moved from the realm of the village to the hands of government. Beaumont strikes a cautionary note:

"What is still lacking in most countries of the Middle East is a conceptual overview of the role of water in the process of economic development. To date water seems to have been regarded by most governments not only as a prerequisite for development, but it seems to have been assumed that if water is provided development will occur."⁽³⁰⁾

Beaumont also directs attention toward a) a more sophisticated approach to water resource planning, which will balance demand against ecological and socio-political factors; b) ambitious major schemes which requires large physical and capital resources when smaller schemes may have sufficed; and c) the need to limit demand by the price

mechanism.

Al-Zaidy takes a harder line as regards the water resources of Saudi Arabia:

"Available water resources in the country not only are under full utilization, but in some areas, such as the sedimentary part of the country have been overexploited, causing increased salinity in pumped water."⁽³¹⁾

The salinity of the water, mentioned by Al-Zaidy, leads to increased salinity of the top soils, which will threaten the existing agriculture and which is not easily rectified. Irrigated cultivation in the western region is not in a much better position. The shallow infiltrated groundwater, although recharged naturally by runoff water from the mountain regions, is under full utilization and may not be supportive to expanded or intensified agricultural development.⁽³²⁾

It appears that the management of the water resources presents a formidable challenge to the policy makers in any arid or semi-arid environment. Availability of water must not be taken at face value and must be measured with an eye on the delicate balance of the ecology, as well as the viability of long-term development. High expectations based on wrong calculations may risk high costs in terms of financial, human and natural resources, as was seen in some Middle Eastern countries. Libya's Kufrah agricultural project is an example of such miscalculation. 10,000 Hectares was developed for animal feed (Alfalfa). It was expected that 40 years of irrigation through 102 wells would produce a 20-36 m fall in the water table. After only one year, however, the water level had already fallen by 5.15 m.⁽³³⁾ In

other cases of large-scale irrigation projects, salinization became a major problem because the drainage system was not satisfactory.⁽³⁴⁾

The previously mentioned projects were state initiated, which meant that a high degree of planning was involved, as well as a large body of experts. That, however, did not mean that they were successful in reaching their goals. But equally, agricultural planning that is left in the hands of private developers runs greater risks to both the developers themselves and the natural resources on which the nation depends. This is because the individual owners of agricultural operations may have no interest in or access to an ecologically sound agriculture plan. Most agricultural operators, in fact, are interested in the maximisation of their profit at any given time especially if they lack knowledge or experience.

Emulation of the developed region's agricultural methods, for whom water is no problem, with no regard for the national capacity (human and natural), is a recipe for disaster. Iran in 1968 had to nationalise its water resources to combat the process of depletion of groundwater reservoirs, due to the greater extraction level brought about by the use of modern agricultural technology (e.g. water pumps), as well as the fast rate of expansion. Saudi Arabia, being more arid than most regions in the Middle East, can only be more at risk in this respect. It must, therefore, be more aware of the dangers of depletion of underground reservoirs of water. If this is not so, then the future of the agricultural sector can only be in question.

SECTION II

Land Reforms and Distribution Policies

Understanding the development process in Saudi Arabia, which does not have a long history either of central state formalized policies or of social and economic research efforts, can be a task fraught with difficulties. The recent nature of every aspect of modern development, coupled with the dualistic nature of the social and economic structure, added to a scarcity of literature, can make full comprehension and an integrated analysis appear elusive, even to a native social researcher. One major problem arises from the tendency of official statistics and most of the accepted major works to deal with generalizations, and not to highlight contradictions within the development process: contradictions that may be in the form of deviations from the expected development process, or within the already existing development policies.

An example may clarify the previous points in relation to landholdings in Saudi Arabia. According to official statistics, landholdings in the country are small, averaging about 6.77 hectares in 1975/76. The cultivated hectares, however, are even smaller, averaging about 3.28 hectares.⁽³⁵⁾ The statistics of the Ministry of Agriculture state that only 8% of the total landholdings are in excess of 10 hectares. The land distribution policy only grants 5-10 hectares per individual and 400 hectares for corporations. The "revolution" of wheat cultivation, on the other hand, is based on modern agricultural irrigation methods, which covers a minimum of 25 hectares per irrigation system. Consider the position of a social researcher arriving at the scene of a

hectic and developing agricultural region, in which a 25 hectare cultivation is considered a small farming enterprise by both the private individual owners and the general public. In fact less than 100 hectares under cultivation is considered uncompetitive. Considering the recency of modern agricultural enterprises, and the preceding establishment of the land distribution policy, the researcher is faced with the dilemma of placing this trend in some parts of the country towards larger farms in the national context. Various explanations could be considered:

- A. The researcher may be in the heartland of the 8 percent of the landholding population who are large landowners.
- B. It could be a case of a recent and differential development, which has not been reflected in the statistics.
- C. On the other hand, it may be a case of arrested development of the statistics.

The issues arising from encountering such a situation as regards landholding give rise to a set of questions that may not be a reflection of the overall national context, but are vital to understanding this particular situation. Answers if acquired can be revealing in relation to certain understated aspects of broader national development. The major questions in this instance were the following:

1. What constitutes the percentage of the population of large land holders, and what qualification is required to enter such a grouping? The issues involved here relate to landownership

under the Islamic system which is the foundation of Saudi society, as well as the recency of private individual ownership of land, especially in the nomadic sector of the population. Another issue is the recent nature of modern agricultural methods, which facilitate the ownership of productive and large agricultural lands.

2. How does the individual ownership of large agricultural land relate to the land distribution policy, which favours small agricultural enterprises? This is important since there has been simultaneous development of both types of ownership, which indicates that there is differentiation in the land granting system.
3. How compatible are the policies of land distribution of agricultural land with a) the general development policies for agriculture, b) the general trends apparent in the agricultural sector, and c) the future preservation and continuation of the present growth rate in terms of human and natural resources? This issue will be discussed more fully in the third section of this chapter.

In order to tackle the issues outlined above, it is necessary to examine two particular areas. The first is land ownership, as outlined by the different ideological systems existing in the country and operative through the land granting policies (the most important of these being the land distribution policy of 1968). The other area for study is the agricultural subsidy programme, which has been a major - if not the only - influence in the development of this sector, and which will also be discussed in the next part of the chapter.

1. Land Ownership and Land Distribution Policies

The right to use, own and allocate land in Saudi Arabia at present is profoundly influenced by the Islamic laws expressed in the Holy Quran, and the foundational doctrines taught by the Sunna and Hadiths ⁽³⁶⁾ of prophet Mohammed - Peace be upon him. Since the official doctrine of Saudi Arabia is the Islamic Shariah (law), it is then natural that the law-enforcing body combines both religious and social aspects of the leadership.

Customs and traditions, on the other hand, also exert a heavy influence on the concept of landownership in Saudi Arabia. These are derived from two socio-economic groups: the nomadic pastoralists (El-Badia), and the sedentary people of the towns and villages (El-Hadhar). *The kinship structure was the dominant feature in both communities; and their customs were in part derived from such principles of their economic system, as do not run contrary to the Islamic religious principles.*

Another source of customary practise is derived from the historical and political influences which existed for some time in parts of the Arabian peninsula, namely the Ottoman Empire. The Ottoman rulers brought certain modifications to land tenure, needed to incorporate the non-muslim subjects in their regions of influence. These changes were originally derived from the Shariah (Islamic laws), but were also influenced by secular European models to make them more adaptable to the empire's needs. The Ottoman code of land tenurial systems was introduced to the Arabian peninsula in 1858, but it only affected the most important and rich areas like Al-Hijaz (in which the two holy cities of Meccah and Madinah are located), the agricultural region of Asir on the Red Sea, and Al-Hassa in the Eastern region.

The modern state, therefore, inherited a triple legacy as regards land tenure: the first pertaining to the Islamic principles, the second pertaining to the customs and manners of the traditional society and finally the classification and bureaucratization introduced by the Ottoman Empire. Each of these will now be considered in turn.

2. Land Utilization under Islamic Laws

Appropriation of land in the Islamic tradition arises from the concept of utilization. When the land is used, reclaimed or made utilizable by a person, then he would have priority in its use. A very clear distinction was drawn by the Islamic laws between land left in a state of nature or abandoned, "dead" land (Mawat or Mushaa), and land made fruitful by cultivation or other uses.

Any person utilizing previously unutilized land has the right of ownership. This was shown by a great number of Hadiths (the prophet's sayings) as in the following ⁽³⁷⁾: "He who utilizes Mawat land, that land becomes his own", and "He who arranges to use Mawat land becomes its owner. All land not belonging to anyone belongs to Allah and his Apostles, and to you afterwards. On the other hand, any person utilizing another's land does not obtain anything in return except his own costs. The Prophet - peace be upon him - said: "Whoever plants in the lands of others without obtaining their permission, the cost he incurred should be repaid, but he does not own the harvest."

The Islamic Shariah defines full possession as the actual use and development of land for the purpose intended. ⁽³⁸⁾ An example would be a person building a house, which fulfils the condition of utilization, or a person preparing land for cultivation and providing a water source

(a well), which in this case fulfils the purpose of agricultural utilization.

Mawat land (dead), also called white land, belongs to Allah primarily, which means that it belongs to the Muslim community or the public right. The Muslim people are the only agents of Allah, which means that individual muslims have the right to utilize Mawat land. There are two way of acquiring the titles to ownerless land:

1. By direct utilization
2. By acquiring it through Iqta or donation

The Iqta system is the bestowal of ownerless land upon an individual by the Imam (the leader of the Muslim community), for the purpose of utilization. There are strict rules governing the Iqta system, which are as follows:

1. The Imam does not donate previously utilized land or owned land.
2. Whoever leaves donated land unutilized for three years loses his right to that land. This was clearly decreed by the prophet's Khalifa Omar Ibn Al-Khattab.
3. The donated land must be utilized properly and for the purposes intended.
4. The Imam or government donates land only to people who contributed good service to the common interest, or to people

where the donation fits the common interest.

5. The evidence of utilization must be firm. Omar Ibn Al-Khattab, the second Khalifa said: "Water is the basis of revival such as digging a spring or a well. If a person did this, then built on or farmed the land, his work creates the complete revival. If he did nothing on the land except extract water, he will however have the right of ownership only for the area of the spring or well."

From the previous points, it is apparent that the forefathers of the muslim community sought to erect a very firm and just system of Iqta or donation. Ownership through Iqta or direct acquisition is firmly based on continuous utilization, which is the only form of land appropriation in the simple and traditional early society. The most prominent feature in the Islamic system of tenure is the absence of the concept of land as a marketable commodity. Individuals and groups, moreover, have the right to occupy and use land at any time within the framework of the community. (This point of the Islamic law facilitated the traditional patterns of land tenure in the case of subsistence agriculture and nomadic pastoralism).

There are three types of ownership under the Islamic law:

1. Community ownership: This ownership extends over all Muslim and conquered land, even if previously cultivated. It also extends over forests and pastures. The Muslim community as a whole is the owner of these lands, and the Muslim ruler has not power to control or legislate for these lands.

2. The Public Domain: The ownership of these lands is still by the community, and it extends over all the fallow lands. The State has the right of legislation, control and donation of these lands.

3. Private Appropriation: The individual, or a group of individuals, have the right to utilize fallow land (Mawat and ownerless), whether they are authorised by the ruler or not, but the individual has the right of appropriation only as long as he maintains his utilization.

Although Islam maintains the right of the individual to own land, it also has strong measures to control unjust appropriation of large lands by the individual. This comes through the qualifications of continuous utilization, and by the Islamic inheritance laws which give the individual's heirs collective ownership (female heirs inherit half what the male heirs inherit). Muslim individuals have no right to dispose of their inheritance upon their death, except for a religious endowment for the holy places, or the poor in the Muslim community. Another measure of control of unjust appropriation was the precedents set by the early Khulafa (plural of Khalifa) of the Prophet Mohammed- Peace be upon him- as in the case of this Hadith:

"Abu Bakr (The first Khalifa) donated land to one follower and gave him a deed, and brought witnesses among whom was Omar Ibn Al-Khattab (the second Khalifa). When the follower came to Omar to stamp the deed he said: 'Stamp it? Is all this for you who have no people?'"

The implication of Omar's words is to discourage the appropriation of

large landholdings by one individual. Only when a large Iqta is meant to be enjoyed by a large kinship group, is it deemed appropriate and just.

Another feature of the Islamic concept of rights in land, besides the absence of marketability and the concept of continued utilization, is that it allows the development of customary laws arising from the structure of the existing societies within a fundamental framework. That framework modified pre-Islamic practices without harming the basic structures of the societies in question. The absence of conflict, however, was a function of the basic nature of those societies and their rulers as well as a function of their environment, as will be seen in the next section.

3. Customary and Traditional Laws of Land Ownership

Since pre-Islamic times, the Arabs of the Peninsula have practised two types of land tenure: subsistence pastoral nomadism, and subsistence agriculture as practised by sedentary people. The pastoral nomadic land has always been more extensive than cultivated land in the Arabian Peninsula. In fact more than eighty percent of the area has been and still remains pastoral land. This is because nomadism is the most efficient system for the use of the vast arid regions of range land. Nomads travel with their flocks to almost any place, where they can find forage and water. All pastoralists are partners in the use of water, pasture and firewood. Collective ownership, however, only operates at the group level. From the point of view of the nomad, any land considered as necessary for the survival of his group and utilized thus, is held in some form of collective ownership by the group. These lands have been specially identified by the utilizers, and strict

measures have been enforced for their protection.

The Dirahsystem, which incorporates Hema (protected) territories, was born out of the tribal structure and has been practised since pre-Islamic times, and was carried over in the establishment of the sedentary tribal groups. This facilitated the maintenance of an area of land, surrounding a central territory, which is reserved for the sole benefit and utilization of a particular community to the exclusion of others. The Prophet Mohammed - Peace be upon him - confirmed some aspects of this system, particularly the utilization aspect, and the collective ownership of water, pasture and firewood, but he was reported to have said in one Hadith: "There is no Hema except for Allah and his Apostles."

The above words of the Prophet implied some modification to the Hema system, and gave the representatives of Allah and the Muslim community (the Prophet, the Khalifa and the Imam) some say in the utilization of the protected land. In fact, Hema lands were used as pasture for the horses and camels used in war, during the lifetime of the prophet. Later, during the days of Omar, the second Khalifa (Caliph), these lands were also made available to the animals of individual poor Muslims as well as the common interest of the community.

It is apparent that the Islamic concept of land ownership did not come into sharp contradiction with the existing practices. That is mainly because of the qualification of ownership by the utilization purpose. The adoption of Islam by the population gave them the community right of utilization. Existing utilizers have inalienable right to their land, even in the case of non-muslims who

have only to pay taxes. The practice of Iqta (donation), on which land distribution is based, can only be exercised by the Imam on white (previously unutilized) land.

The tribal sedentary people, who called themselves the "people of the palm", lived in permanent residence in towns and villages where occasionally there would be surface water, or where ground water is near the surface, creating a natural oasis which supported the existence of agriculture and commerce. The oasis dwellers were mostly congregated in the most favourable areas, such as the highlands, where there is sufficient rainfall or natural springs, or the bottoms of Wadis (valleys), and where the water table is high. These areas are represented in the modern Saudi Arabia by the Western highlands, Al-Hassa and Qatif in the eastern provinces, and to a limited extent in Najd and the lowlands of Hijaz. The residency of a community in oases and settlements represented to outsiders a permanent utilization of the area, and therefore ownership by a community.

In most cases the "people of the palm" were not only cultivators or merchants; they also kept animals, for which pastures were needed. This was provided by maintaining a form of Hema system around the settlement, used variously for the grazing of animals, as a line of defence against intruders, and for the purpose of expansion if needed. The areas of common grazing were owned collectively by the settlement, while other areas (white land) were open for cultivation under the utilization rule. Agriculture however in most arid zones of the Arabian Peninsula was solely dependent on the availability of water. The individual right to land was worthless without a constant supply of water to that land.

Conflict between the two economic groups, the nomads and the sedentary, was dependent on the balance of power; which in turn was determined by the control of natural resources, trading routes and the alliances between different groups.⁽³⁹⁾ Despite the obvious differences between these two groups economically, there were similarities in the social structure arising from the dependence on the kinship system as the dominant determinant of the group's cohesion. The leaders of the tribe were the administrators, the military leaders, and after Islam the religious leaders. They were the regulators of access to all resources and the mediators of disputes arising from internal or external conflicts.

The Islamic Shariah sought to regulate the life of the Arabs, and set a just moral code that discouraged infringement of the rights of others and encouraged brotherhood in Islam. It did not, however, seek to erode the basic elements of the existing society.

4. The Ottoman Empire Code of Land Tenure

The Arabian Peninsula was in political and cultural isolation for a long period of time before the Ottoman Empire entered it. Even then, the sultans were only interested in the richer fringes of the Arabian peninsula. This included the Hijaz (west of the Peninsula, where the holy places are situated), the highlands of Asir (south west), and a small section of the north east which is immediately adjacent to Kuwait and Iraq, and where the two rich oases Qatif and Hafuf were located. In the interior (the inner deserts and most of the northern region), the Ottoman had no power or control, mainly because they knew the difficulties that would be encountered from the environment, as well as the tribal groups.

The decrees, ordinance and legislation issued during the Ottoman Empire (AD 1300-1922) were mainly for the application in other Muslim countries under their dominance⁽⁴⁰⁾, and more particularly to the holy cities in Al-Hijaz. The terminology set out by the land legislation was basically derived from the Shariah law, but they also set a firm control by the state over land, and established firmly the marketability of owned land. They were encoded as follows:

1. Miri property (Amiri property or princely property) denotes land held in some degree of communal ownership, and over which the state has the power of administration and legislation. The miri lands are the following:
 - a. Mawat or Mushaa Lands: These are the "dead" lands, and the vacant deserts.
 - b. Kharaj or conquered land: These are cultivated or productive lands conquered by Muslim force of arms. The inhabitants, Muslim or non Muslim, have the right to remain in those lands, but the state enjoys the right of taxation and administration.
 - c. Waqf Land: This is usufruct land, once given as a religious endowment to the holy places and the poor Muslims, now administered by the state which uses these revenues to propagate Islamic foundations (e.g. schools, mosques).
2. Mulk Property: This denotes private property, including lands over which full rights of disposal and alienation are

exercised.

In the Ottoman land code, identification and registration of land titles became recognized and possible. As seen before, this was most relevant in the west of the Arabian Peninsula (Al-Hijaz); but the code became more significant after the establishment of the Saudi state, because it set a model for state control and land legislation.

5. Land Distribution Policies by the Saudi State

It is possible to view the modern state's land policy in different ways. One is to see it as designed mainly to serve fundamental political requirements, which revolve around the affirmation of the state authority in endeavouring to remove any risks that may ensue from the continued independent existence of any socio-economic structure (e.g. the Dirah tribal system), and also the firm establishment of the state as the controller of the national resources. This view has been espoused by many writers, especially those who are concerned with the tribal groups of Saudi Arabia.⁽⁴¹⁾

The second possible view is to look at the land policies as emerging through evolutionary stages of development, that seek to establish the rights and interests of the state as an institution through developing the concept of the public sector without creating conflict between the secular and the religious attitudes, and at the same time preserving continuity with the past. This is the view adopted by Hassan Hajrah in his study of public land distribution in Saudi Arabia in 1982.

The above two views, although very different in terms of implication, are similar in so far that they agree that the establishment of state

authority has been high on the agenda of the Saudi land policies. The Saudi leaders have been faced with the great challenge of reforming the traditional and customary practices (that are largely unrelated to a strong central government) into state inspired and initiated modern practices, while maintaining a legitimacy that stems largely from the same source as the old traditional and customary practices.

The role of the Saudi leaders as the upholders of the Islamic faith and of the accepted leaders (Sheikhs) of the tribes, defines in part the perceived legitimacy and the type of action that is taken as part of the government's policies. The administrative body, moreover, was being formed and developed at the same time that the policies were being formed and developed, which meant that the implementation of those policies could not be swift and effective.

Taking into consideration the strong ideological and traditional legacy that the newly emerging state is facing, it appears that Al-Hajrah's view of the land policies is more likely. That, however, does not negate the validity of the first view as regards the nomadic communities. It is possible to view the interests and political requirements of the state as the main contender in the arena, or perhaps the pole upon which necessary weights must be positioned at different stages, without jeopardising its strength and balance. The management of the shape and the position of these weights has been the challenge facing the leaders in Saudi Arabia especially in the early stages. The influences of the ideological and traditional elements have been clearly exhibited in the gradual development of the land policies which will now be discussed.

6. The Development Process of Saudi Land Reforms

The first attempts to reform land use were embedded in the identification of the emerging state as Islamic. King Abdulaziz was the Imam of the Saudi Muslim community, before he was proclaimed King. As Imam, he is accountable to Allah through maintaining the Shariah laws. King Abdulaziz thus added to the strength of his personality and leadership among tribes the power to rule, providing he kept to the precepts of the Islamic faith.

The Ikhwan movement was the vehicle for the spread and acceptance of the proposed state. It was also an effort to alter and intervene in the economic system of pastoral nomadism (see chapter 2) through encouraging settlement in agricultural Hujar.

Even before the official proclamation of King Abdulaziz (Ibn Saud) as the King of Saudi Arabia in 1932, a law was passed in 1928 virtually abolishing the Dirah system. The law was designed to abolish the nomadic tribal practice to regard the land occupied by each group as its absolute possession, as long as they can maintain their ability to protect it from the encroachment of others. This law's legitimacy was directly derived from the Islamic principle that everything on earth belongs to Allah, and that Muslim people are His representatives who share the utilization of what can be found. King Abdulaziz, supported by the Muslim Ulama of the time, was following the path set by the Prophet Mohammed - peace be upon him - when he declared "there is no Hemma (protected territories) except for Allah and his Apostles". The implication of this law was to declare the traditional pastoral nomadic utilization of land as an incorrect utilization.

According to this interpretation of Shariah laws, King Abdulaziz as the Imam was replacing aggression, which was seen as an inherent element of the nomadic pastoral system, with calm and Islamic brotherhood.

The 1928 law was basically of an ideological nature rather than a juridical one, ⁽⁴²⁾ which meant that the law in itself did not cause an immediate alteration in the models of nomadic life. It did, however, contain the seeds for the formation of other land policies that are juridical in nature and which can be enforced by the strengthened state apparatus.

The period after 1928 saw the following developments:

1. The breakup of the Ikhwan movement, which was mainly composed of the members of the different nomadic tribes, after the abortive insurrections of 1929 and 1930. This power struggle was fought over the interpretation of the Islamic laws as regards innovations introduced into the traditional society and the relationship of Ibn Saud with neighbouring states and western powers who were seen as the enemies of Islam by the Ikhwan zealots.
2. The military establishment of the Islamic state as led by Ibn Saud, which now controlled not only the central tribal region, but also Al-Hijaz and the eastern region with local inhabitants who were profoundly influenced by the previous controlling powers.

What followed was a long and arduous struggle by the government to

contain the significant differences between the various systems of customary laws, traditional practices and the perceived interests of the different socio-economic groups. The overriding concern was to preserve the authority of the state, as H. Hajrah explains:

"First there can be acceptance or rejection of pre existing land claims. King Abdulaziz accepted many of the administrative customs in the new state temporarily to avoid friction, but he changed the administration gradually to put all powers in his hands as Head of State. This was acceptable as a custom of all rulers as Amirs, where they managed the whole affairs of a community, large or small, as absolute rulers."⁽⁴³⁾

King Abdulaziz also realised with his farsightedness that tribal claims to land could not be dismissed easily. He therefore saw fit to give some of the tribal leaders, the Sheiks, limited rights of disposition for the purpose of settlement or distribution among their people.⁽⁴⁴⁾ His actions were perceived as legitimate as an absolute ruler, as well as the Imam of the Muslim community.

By following up the precedent of the Prophet and his Khulafa for Iqta (donation), he was trying to accomplish two things: a) avert the conflicts that may ensue because of the complete devolution of the tribal Sheiks' authority, and the resentment that may be created among the tribal members; and b) reward those who had helped in the effort to create the new state, which was seen as a contribution to the Islamic religion and the nation.

Iqta or donation by the King was selective and did not affect all the

tribal territories, because some of the tribal Sheiks had proved themselves hostile during the Ikhwan conflict. The tribal groups, moreover, were not all powerful in terms of numbers and status. The Ottoman empire also had previously granted some tribal groups a title to their land in the western region. King Abdulaziz did not want to create hatred by rejecting their claims, and accepted them as long as they were not clearly against the precepts of religion. Sedentary and dry farming areas were managed according to custom and Shariah, so that the rights fell to the first seasonal occupant.

During the early period before the establishment of the state's administrative body, policy emphasis was centred around the gathering of power and authority in the lands of the leaders, especially the tribal ones. When certain rights were given as land grants, or by the ruler's permission, these rights were clearly derived from the authority of the state and aimed at particular purposes - such as sedentarization or merely local administration. Any deviation from the set purposes of the state would mean the violation of the basic Islamic Shariah that the state rests on.

The second stage of development, since 1952, was marked by the setting up of the judicial and administrative body capable of formulating and enforcing the state's authority over public land. The state which was created in the twentieth century needed to translate the old style of personal authority to a modern structure and bureaucratic system. The first necessity was to set up a judicial body which can legitimately deal with an illegal land claim made without the state's permission.

This judicial system has to be based on satisfactory interpretation of the Islamic laws. Various royal decrees and ordinances were passed,

which will be listed below chronologically:

1. In 1952 an ordinance of Shariah courts was issued. Its main functions were a) to unify and organise the systems of the Islamic courts in the whole state and to counsel other courts, and b) to interpret the basic principles of the Islamic faith and adhere to the Quran and the prophet's sayings.

The creation of such a Shariah law department was designed to put an effective stop to the numerous faiths existing in the peninsula, which may present differing interpretations of the Islamic fundamental laws. What resulted was the adoption of the Hanbali faith as the official faith of the Kingdom.

2. After the establishment of the aforementioned judicial body, an ordinance was passed in the same year which contained two articles which were immediately relevant to the control of land appropriation. Article 85 set firm regulations for the issuing of appropriation deeds for a property. Any court which has been asked for such a deed, should write to the municipality, the Waqf (religious endowment) Department, and the Ministry of Finance, and enquire from them as to whether they have any objection regarding the issuing of the deed. If they have no objection, the appropriation deed may be issued after being published in the official papers for a period of one month.

Article 86 of the same ordinance dealt with the issuing of deeds to undeveloped (Mawat) land. It also decreed that deeds can only be issued after the financial authorities were asked

for guidance, in addition to the set procedure of Article 85. The two articles were meant to co-ordinate and control the issuing of appropriation deeds which had been in great demand nationally. These deeds were previously given by the religious courts through lodging a case and giving an oath, with the appropriate presence of witnesses to the claimant's right of ownership according to the utilization principle.

These institutional and bureaucratic procedures, however, had wide ranging implications, which were not universally accepted by the religious faiths in view of their differing interpretation of the fundamental Islamic law. The controversy was related to two areas:

a) the state's right to control the growth and utilization of undeveloped land, and b) the need to show that continuous utilization has been effected. The Hanbali school of Quranic interpretation maintained that any action of granting undeveloped land by the prophet Mohammed - Peace be upon him - was made by him in the name of God and therefore was perpetual. The Malki and Hanafi schools, on the other hand, believed that in the matter of granting undeveloped land the prophet had acted as head of state, and that therefore the normal need to show use would operate.

3. In 1957, the controversy was finally resolved by a ruling of the Grand Mufti (Chief Justice) of the state. The ruling stated: "He who utilized the land claimed it as his own, whether or not he had permission from the Imam. He who surrounded a land by stones, it became his own free of charge.

When an interested person got it he had to utilize it or leave it. Any dispute or interpretation by one municipality or another will be referred to Shariah. Anybody trying something else is not going in the right direction."⁽⁴⁵⁾

The Chief Justice's ruling confirmed the individual right to land utilization, regardless of the state's permission. However, it did not rule on the issuing of deeds for properly utilized land, which meant that there has not been any major contradiction between the previous decree and the 1957 religious ruling.

The situation at this point was highly complex and confusing. Claims to land were variously based on previous utilization, present utilization, the community right of tribal groups by virtue of settlement or utilization, deeds previously issued by the courts, land grants to specific groups or individuals by the King, and written documents issued by the leaders of the communities in the presence of witnesses.

4. Two Royal decrees in 1967 and 1968 put a stop to further confusion of this sort. The first ruled that anybody who henceforward alleges land appropriation of utilized land, shall have his allegation disregarded. The second ruled that undeveloped lands are owned by the government, that the appropriation of such land by anybody is not recognised, that deeds supporting such appropriation were cancelled and that the claimant could be penalised.⁽⁴⁶⁾ Agricultural and rural lands particularly were affected by this ruling, because its major aim was to regulate collective and individual appropriation or

utilization of undeveloped lands which is not sanctioned by the authorities. This in effect completed the gradual process of dispossessing tribes of their tribal space.

The land policies of 1967 and 1968 are often cited as the start of the modern phase of land policies in Saudi Arabia. This is partly true because it was the start for clear and unequivocal state authority over public lands. It also set the stage for a classification of public land according to utilization and exploitation needs for both the state and individuals. Lands which were previously effectively managed and utilized by tribes were taken over in the public interest, such as forestry areas, land with mineral rights, and the majority of pasture lands.⁽⁴⁷⁾ The laws of 1967 and 1968 also made possible the passing of the Public Land Distribution ordinance in 1968, which was administered by the public land management department of the Ministry of Agriculture, and which will be discussed in point 7 of this section.

Despite all of these modern sector developments, fundamental traditional elements remained operative. These are the following:

1. The basic right of the ruler as an Imam and the leader of the tribes to grant land according to the Islamic Iqta system. The Royal orders of this kind were listed by Hajrah for the years 1964-71 (Table 4.6). These and previous donations were outside the ordinance of 1968, and the powers of the public land management department.

The individuals or Sheiks of tribes, who received those donations of land, were free to execute their rights according to the stipulation of the Royal Iqta.

Table No. 4.6 Areas in donums granted according to Royal Orders, from 8/1/1384 to 8/7/1391 (1964..71).

<i>Area</i>	<i>No. of Utilizers (Beneficiaries)</i>	<i>Area Distributed</i>	<i>No. of Royal Order</i>	<i>Date of Royal Order</i>
Madinah	55	8,518.7	624	8/1/1384 (1964)
Taif	1	27.1	20,399	26/8/1384 (1964)
Ha'il	1	2,880	15,032	15/7/1384 (1964)
Bishah	115	3,828	17,447	14/8/1385 (1965)
Qasim	1	250	17,719	19/8/1385 (1965)
Qasim	1	1,000	16,677	20/8/1385 (1965)
Al-Howta	1	708	24,879	29/10/1386 (1966)
Unaizah	1	100	936	21/11/1386 (1966)
Al-Hassa	1	75	27,647	4/12/1386 (1966)
Al-Hassa	6	400	3,909	24/2/1387 (1967)
Yanbo'a	1	10	12,285	22/6/1387 (1967)
As-Salsalah	69	5,199	10,668	18/5/1388 (1968)
Tarabah	206	2,238.2	11,808	2/6/1388 (1968)
Tathlith	42	652.2	19,172	10/9/1388 (1968)
Qasim	5	500	5,194	8/3/1391 (1971)
Qasim	2	3,250	9,550	29/4/1391 (1971)
Qasim	1	100	14,654	8/7/1391 (1971)
<i>Total</i>	<u>509</u>	<u>29,736.2</u>		

Source: Hajrah, H. Public Land Distribution in Saudi Arabia, Longman 1982, P.79

2. The traditional and deep rooted social values regarding the community right of ownership of the land on which they are settled remained operative. What this led to was the survival of villages and bedouin communities with recognized rights to territories.⁽⁴⁸⁾ The survival of this traditional custom had significant implications on land grants even after the 1968 law. It also affected the modern land distribution policy , whose principles were formulated by an administrative body from the public sector.

In theory, land allocation according to the new policy is open to all Saudi nationals in any territory. The reality was that there was preferential treatment for those who have a traditional right. This is particularly significant when we consider that there are large nomadic populations who do not have specific titles to land, but who need socio-economic equality with their settled and urban compatriots.⁽⁴⁹⁾

3. The traditional leaders of the tribal groups retained their position in their communities. Their function, however, was considerably modified. Prior to 1959, they were able to retain their customary powers including that of land allocation and distribution. That right was abolished by a Royal decree in 1959, and the central government assumed this responsibility in accordance with religious practices. Allocations and donations by the local Amirates (Sheiks, regional governors) before that date could be confirmed by the local religious courts. H.M. the King, however, may grant the local Amirs the power to allocate land, and that meant that the territories of the concerned community fall outside the land distribution

policy.

The local Amirs, therefore, derive their power from the King or his representatives (e.g. Prime Minister or Minister of the Interior at present). The limits of jurisdiction of the local Amir are not very clear, but his authority extends over the settling of local disputes, general administrative responsibilities, and as a representative of the community's interests. The influence derived from such an administrative position is considerable, and it has the potential to be either positive or negative to the community at large depending on the personality of the Amir and his relationship with all different factions of his community, as well as with the central authorities.

The differentiation between local Amirs' power as regards land distribution is another element of the system that does not encourage the application of a uniform policy regarding land distribution. Differentiation may occur at two levels. One is between the policy of the state and the practice of the Amir, which will result in differences in the pattern of land holdings operative in different rural communities. The same can hold true on the level of the size of territories over which the community right of ownership is exerted. (50) Second, differentiation in landholding patterns may occur at the level of the individual community depending on the Amir's practice. Favouritism may be shown to those who are closest to the Amir, in terms of shared interests or kinship ties.

7. The Present Public Land Distribution Ordinance (PLDO)
1967/68

There are three very important characteristics of the current land distribution policy administered by the state:

1. It only affects unutilised, unowned land, which means that there is no element of redistribution in the implementation of its principles.
2. It recognises all claims prior to the Public Land Distribution Ordinance of 1968 (PLDO), because the various systems of distribution effective previously were basically derived from the acceptance of Islamic concepts of land proprietorship as interpreted by Sharia.
3. It is the first system of land distribution in Saudi Arabia that is based on modern executive procedure. Considerable planning was involved in the setting up of its principles, and in determining the economic benefits of land allocation, in terms of the land's productive capacity and the ability of the individual to utilise the land.

The Ministry of Agriculture and Water, in association with the Ministry of Interior, were jointly responsible for the execution of the public land distribution ordinance (PLDO). Its stated aim was that:

"Development of new lands and enlargement of existing farms by private entrepreneurs will be facilitated by the recent PLDO and will be further encouraged by Government technical assistance and grants."⁽⁵¹⁾

The expression of "public land" in the ordinance means any land wherein the following condition are fulfilled:⁽⁵²⁾

- a It should be free from existing rights of proprietorship or

appropriation.

- b The economic advantages of its utilization should be clear.
- c It should be outside the boundaries of the inhabited areas and their related interests in both towns and villages.

The principles of the ordinance were as follows:

1. Each individual would receive a minimum of 5 hectares to a maximum of 10 hectares (this was considered a normal economically viable size). Up to 400 hectares can be allotted to any single company however.
2. The individual, groups of individuals or company who received land grants must utilize it according to the Islamic rule, in order to gain the right of ownership. The period specified by the ordinance was 2-3 years. If utilization however is not effected, the individual loses his utilization right and the land is returned to the public domain.
3. Local committees were formed to deal with the process of distribution in the different regions. These committees were constituted of representatives from the Ministry of Agriculture, Ministry of Finance, Ministry of Interior and the Ministry of Justice, in addition to two representatives of the local people. These local members of the committees must not be employed by the government in any capacity. The local committees report to a central committee, which makes the final recommendation which is then implemented by the public land

management department.

The individual allottee may not be granted more than one land unless a previous grant has been completely utilized, and his ownership established. The ordinance also gives the Ministry of Agriculture the task of supervising the allotted land from the technical point of view and the right to check that the utilization function is performed. If this is not done by the set time, then advance notice is given to the allottee two months before cancellation may take place.

Yet these measures to guarantee the economic benefits of the policy are largely theoretical, as H. Hajrah explains:

"In theory the state has the powers to take action but in practice the special characteristics of the Saudi Kingdom produce flexibility."⁽⁵³⁾

The "flexibility" stated by Hajrah means that lands once granted were seldom returned to the public domain. Time extensions were often allowed for land utilization, and the allottees' ownership was confirmed. Land grants before the PLDO became subject to the same rules of utilization set by the ordinance, but the size of these granted lands and their location were never affected by the new rules of land distribution.

The year 1972 saw 28,410.1 hectares distributed to 4750 users. The total number of hectares announced for distribution was 301,786.5 (see table 4.7). The average size of the distributed hectares per user did not exceed 10 in the majority of the cases, but two regions (Al-Ula and Qatif) had a larger average size of distributed land. This may be

Table No. 4.7 Areas, (in hectares) prepared for distribution according to PLDO and having water potential.*

<i>Area</i>	<i>Land Announced for Distribution</i>	<i>Land to be Announced for Distribution</i>	<i>Area Delivered to Utilizers</i>	<i>No. of Utilizers</i>	<i>Proposed Distribution Programme over 3 Years</i>
Al-Joaf	1,700.0	1,317.1	1,921.9	260	1,000.0
Tabuk	44,904.7	—	16,399.4	2,972	13,365.7
Taima	336.0	—	—	—	336.0
Al-Ula	1,434.0	—	1,002.0	41	3,143.9
Qasim-Buraidah	84,590.0	7,991.7	2,199.5	358	8,459.0
Qasim-Unaizah	9,575.4	—	165.9	28	3,191.8
Ha'il	62,895.7	52,526.4	1,536.0	340	6,289.5
Bishah	7,270.0	426.9	—	—	727.0
Najran	2,000.0	—	194.2	48	2,000.0
Wadi Dawasir	3,600.0	4,550.0	360.0	73	1,200.0
As-Sulail	13,205.6	191.8	109.0	14	4,401.6
Al-Hassa	37,840.0	4,416.0	1,076.7	187	974.7
Qatif	12,485.0	50.1	918.7	25	4,161.6
Al-Kharj	8,120.0	582.1	1,956.8	377	1,956.7
Shakra	800.0	—	—	—	700.0
Al-Aflaj	1,200.0	—	300.0	27	1,200.0
Az-Zulfi	400.0	—	—	—	400.0
As-Serr	9,430.7	—	—	—	3,143.5
Total	301,786.5	72,052.1	28,140.1	4,750	56,651.0

Source: Hajrah, H., Public Land Distribution in Saudi Arabia, Longman, 1982, P.99

because a certain number of companies had applied for grants of land in those regions, which raised the average acreage per user.

There have been considerable regional differences between the zones over which the PLDO operates. The differences are due to a) ecological factors, such as water availability and soil suitability, b) the state of agricultural production before the PLDO implementation, and c) the degree to which the region can be classified as urban. These three elements have been most influential in determining the general character of agricultural production in any one given region. They also determine who will be benefitting from the new era of land distribution, be it the already established farmers with adjoining farms to the area to be distributed, or bedouins who had relied on pastoral activities before. The more urbanized areas, however, could accommodate tribal applicants from other regions more easily than remote and closed communities. The newly emerging agricultural regions were to be built on a pattern closely resembling the PLDO view of viable agriculture (i.e. small owner occupier farms). Other elements - such as the marketing possibilities of agricultural goods due to the availability or lack of road links, and the estimated cost of establishing agricultural production - can also have considerable influence on how the agricultural operations develop.

Gasim in the north is one example of an agricultural region of a rural settled population with strong agricultural traditions. After 1950, as a result of the rising national income from oil, commercial business grew in the region. The increase of wealth enabled land holders and farmers to be expansionary. When water was discovered in abundance, a new era began for Gasim. It became less isolated and grew in size gradually to become one of the largest agricultural areas in Saudi

Arabia. Land holdings were uniformly traditional in size before 1966, but new property patterns began to emerge after that year due to unplanned taking of land by utilization. This was a result of the availability of new technical and economic opportunities with a basically traditional attitude to land acquisition.⁽⁵⁴⁾

Gasim then can be characterized by a slow but strong local initiative in the pattern of land appropriation. The PLDO pattern of land granting in the Gasim region was a "policy of encouraging existing resources as well as expansion."⁽⁵⁵⁾

After considering some of the complex factors that may govern the result of the PLDO's implementation, it is possible to highlight some of the basic characteristics of this policy:

1. It is limited by its nature. The policy can only affect the pattern of land holdings in the newly cultivated regions. It has no power to assess or modify any previous pattern that exists within the national setting.
2. It encouraged the pattern of small traditional farming concerns for individuals which were prevalent at the time. It had, however, a different and more favourable policy for companies and agri-business enterprises, in terms of size of land allocated.
3. The utilization principles remains, as in the past, dependent on the ability of the individual or the company to initiate and complete production. This previously was mainly through the application of human labour. The changing economic and social

circumstances at present, however, give the well-off a preferable position in agriculture. It also gives the large already established modern farmers an unfair advantage in terms of expanding.

4. The policy was formulated before a coherent and well established national agricultural development policy was formulated. So its principles were not necessarily compatible with the rural development programme that was initiated in 1975.
5. Although relatively speaking the PLDO was reasonably well organised in terms of assessing the agricultural productivity of public land of Saudi Arabia, it was dogged by shortages of experienced and skilled employees, and its implementation process was also affected by the traditional considerations outlined previously. Nonetheless, the PLDO's many positive contributions include:
 1. The identification of the areas and magnitude of agricultural expansion.
 2. It helped to settle nomadic groups, who did not have the right to specific areas, or who had experienced economic decline due to drought or loss of pastures.
 3. It took the first step for the development of the agricultural sector, especially among the majority of the rural population, who had no contact or experience with the modern sector.

8. An Overview of Saudi Land Reforms and Distributions

Overall, then, the path of development of the land reforms is a gradual change from a pattern of ownership that was predominantly collective to a pattern predominantly individual. This was achieved, not only through the process of gradual social change, but also through a policy that perceived the latter form of ownership as the most beneficial to the nation.

The Islamic laws sanctioned individual ownership through continuous utilization, but on the whole encouraged collective utilization of natural resources. The Islamic view of ownership is also reflected in the inheritance laws which divide the property between inheritors strictly. There was, moreover, an absence of the concept of land as a marketable commodity. The traditional conditions of the peninsula also favoured collective utilization of land in the form of the Dirahsystem among nomads, and the community right in settlements and villages.

The state which has emerged in the twentieth century had to build a social structure that corresponds and conforms to international standards, and also fulfils the function of economic growth. There were perceived inherent dangers in some of the traditional systems to the continued existence of a centralised government, and therefore the well being of the Saudi nationals.

The transformation of the social structure had to take a careful path, that eliminates the potentially harmful elements in the traditional structure without removing any of the legitimacy of the state, as the ruler of a basically traditional population.

The state's adherence to Islam and the Shariah principles was one way to consolidate its position among the deeply religious and conservative population, which would allow it then to effect changes that are not basically opposed to religious thought.

The tribal sector was the first target for a particular type of policy which achieves transformation without any radical changes. This was done through abolishing the Dirah System (the economic function of the tribe). Yet still through the leaders of the tribes, especially the powerful ones, the state maintains a advantageous link with the group. Wealth and welfare can then be distributed where it is needed without creating a generalized upheaval in all rural areas.

The same period marks further development of the individual ownership pattern, which was supported by the development of the Islamic judicial system, and the adoption of the Ottoman land code. Once the change was substantially accepted, and the state structure was strengthened, it became possible to introduce modern land policies that are acceptable, but not radical in nature. The new policies removed the burden of the traditional land grants from the Saudi leaders, without affecting the already established pattern, and avoiding conflict with the traditional elements.

Another characteristic of the Saudi land policy is that it is dualistic. There are strong elements in it that encourage the development of large landholdings. This is through (a) actual traditional land grants, (b) the utilization aspect as it operates at present, and (c) governmental policies to encourage large private enterprises. Yet at the same time the state has a modern policy (the PLDO), that encourages small farming operations. This stems from the

conflict between an ideology strongly influenced by traditional factors, and a policy derived mainly from the modern sector. This has resulted in a considerably differentiated landholding pattern. These may be exhibited in one region or between different regions.

Although it is not possible at present to determine who in fact are the large landowners (because the process is too recent, and the data too fragmented), it is possible to speculate on the basis of the degree of likelihood. The social position and economic circumstances surrounding certain social groupings allow us to make a judgement. For example, peasant farmers and poor recently settled nomads are the least likely to have the ability and experience to expand in terms of land holdings. Even if land is obtained through the PLDO, and financial assistance is received through the Agricultural Bank, the size of the land and the lack of experience in modern agricultural methods make it likely that these groups will stay locked in a traditional and non-expanding economic operation.

On the other hand, tribal (previously nomadic) groups who have access to land through a donation to their Sheikh or Amir are in a much better position to develop landholdings that are larger than the national average. This is not only because there are no restrictions on land size granted by Amir or the ruler, but also because the access to land ownership came earlier in most cases. What this means is that individuals have a better chance to develop landholding and expand their operation through revivification, while gaining experience of and links to the modern sector.

Success, however, is not always guaranteed to agricultural settlements or settlers of this kind. That is because the ecological factors may

not be favourable. The size of land donations (from the ruler or the Amir), moreover, can vary according to socio-political circumstances.

Sedentary rural communities, who have a strong agricultural background and hold community right over established farming areas, have an even higher likelihood to develop large landholdings. They in most cases are in areas that have better potential and are sufficiently established to participate more actively in the new areas of employment and markets of the modern sector. That in turn develops the attitude and economic ability that allow some to turn to larger agricultural enterprises. This may be done through expanding existing landholdings or utilization, large land grants, and/or purchase.

The differentiation in landholding operates at the level of different settlements and villages, and also at the community level. Social status and close kinship ties to the social leaders are favourable factors for large landholdings. If this is coupled with economic ability and modern sector experience, then success within the present structure of the agricultural sector is highly likely. That is because the policies for agricultural development favour large, highly commercialized farming operations, or rurally based agri-business. This issue will be discussed in the coming section.

SECTION III

AGRICULTURAL DEVELOPMENT AND SUBSIDISATION

Agricultural subsidisation in general has been used in Saudi Arabia for the following purposes:

1. Encourage people or firms to enter into farming and increase agricultural production.
2. Assist the existing operators to expand their production by providing better input free or at lower prices and/or by making available cheap credit.
3. Improve the existing methods by introducing better seeds, fertilizers and technology.
4. Provide adequate returns to the operators by guaranteeing the market.
5. Enable the local producers to survive and compete with the foreign suppliers.

Agricultural subsidies, as mentioned previously, began in 1973. The royal decree no. 52 authorized the subsidisation of agricultural machinery to encourage farmers and agricultural productivity. Since then, the government has added subsidies for engines, pumps, seeds, fertilizers, animal feed, dairy and poultry equipment, fishing equipment and for drought relief (see table 4.8).

There are three agencies administering agricultural policies, including subsidisation. The first is the Ministry of Agriculture and Water (MAW), which was established in 1952. The second is the Saudi Arabian Agricultural Bank (SAAB), established in 1967. Thirdly the Grain, Silo and Feed Mill Organisation (GSFMO), established in 1972 but not operative until September of 1977. The three agencies provide the

TABLE NO 4.8

STARTING DATE OF VARIOUS SUBSIDISATION PROGRAMMES

PURPOSE	ROYAL DECREE NO (Resolution of Council of Ministers)	DATE
<u>Inputs</u>		
1. Agricultural Machinery	52	1973
2. Chemical Fertilizers	516	1974
3. Feed Concentrates	668	1974
4. Engines and Pumps (Irrigation)	515	1975
5. Dairy Equipment - Transportation Cost	731	1975
6. Poultry Equipment	924	1975
7. Date Palm Trees		1977
8. Fishing Equipment	562	1977
<u>Outputs</u>		
1. Rice and Wheat	688	1974
2. Corn	1418	1974
3. Local Sheep and Camel	1867	1975
4. Barley and Sorghum		1977
5. Date		1977
<u>Other</u>		
1. Emergency Drought Relief	1418	1974

Source: Mohammed M Rizk and Sayeed S. Sayeed, Government Subsidy, 1st part, serial no 3, Ministry of Finance and National Economy, Kingdom of Saudi Arabia, Riyadh, Saudi Arabia, May 1976. Also Department of International Economic Productions, Facts about programmes of Government Subsidies and loans to the Private Sector, up to 30.4.1396 A.H; Ministry of Finance and National Economy, Kingdom of Saudi Arabia, 1977.

Quoted in unpublished SAAB internal paper, 1983.

various input and output in agricultural subsidies in the Kingdom (see table 4.9). Agro-industrial loans are also provided by the Saudi Industrial Development Fund.

As table 4.9 shows, the majority of the input subsidies are administered by SAAB, while the wheat output subsidy is administered by the GSFMO. MAW provides a mixture of input and output subsidies, the most important of which is free land. The roles of MAW, SAAB and GSFMO in the subsidisation programme will be discussed in this section. The major part of the attention, however, will be focussed on wheat production and subsidisation. This is because wheat has emerged as the main agricultural produce of the country as a whole, and more particularly of this study's region. Wheat also has been the main beneficiary of attention in the government agricultural development programmes, especially as regards output subsidies.

The obvious benefits of the subsidization policies have been apparent generally in the accelerated growth of the agricultural sector, in terms of output and land utilization. The 1980s have seen Saudi Arabia achieving self sufficiency in wheat, eggs and poultry meats, and approaching self sufficiency in milk production. Land utilisation, moreover, has increased spectacularly since the beginning of the third development plan term (1980-1985).

There are, nevertheless, certain problematic areas, which will be the subject of the later part of this section. These problems cast a few shadows over the bright hopes generated by the "success story of wheat", and the huge efforts of the agricultural agencies of the central government.

TABLE NO 4.9
TYPES OF AGRICULTURAL SUBSIDIES PROVIDED BY THE THREE AGENCIES

Ministry of Agriculture	Saudi Arabian Agricultural Bank	Grain Silo and Feed Mill Organisation
<u>Input</u> 1. Land (Free) 2. Potato Seed (Variable, but roughly 85%) 3. Fertilizers (50%) 4. Date Palm Trees (SR 50.00/Tree)	<u>Input</u> 1. Animal Feed 50% 2. Agricultural Machines 45% 3. Engines 50% 4. Pumps 50% 5. Poultry Equipment 30% 6. Dairy Equipment 30% 7. Transportation of Cows 100% 8. Fishing Equipment Variable	<u>Input</u> None
<u>Output</u> 1. Rice (SR 0.30/kg) 2. Corn (SR 0.25/kg) 3. Millet (SR 0.15/kg) 4. Barley (SR 0.15/kg) 5. Dates (SR 0.25/kg) 6. Sheep SR 20/head (discontinued 1979) 7. Camel SR 66/head (discontinued 1979)	<u>Output</u> None	<u>Output</u> Wheat Price (SR) Until 1976 - 0.30/kg 1977 - 1978 2.25/kg 1979 - 1984 3.50/kg 1984 - Present 2./kg Intended to stay at this price until 1989

Source: Various Governmental Agencies papers (Published and Unpublished)

1. The Role of the Ministry of Agriculture and Water in the Subsidisation and Development Programme

The Ministry of Agriculture and Water has the primary responsibility for developing agriculture in the Kingdom. It is responsible for providing overall leadership, guidelines and co-ordination for all of the other agencies participating in the development efforts. Among several of its activities, MAW distributes land to farmers and agricultural operators free of charge. It also provides subsidies on fertilizers, potato seed, dates, date palm trees, animal production (till 1979) and cereal production (corn, barley and millet); and it provides improved varieties of seeds and animals, carries out agricultural development projects of new lands, and reclaims existing irrigated land. It also provides various agricultural protection, veterinary and agricultural extension services.

Land distribution and the PLDO have been discussed in the previous section. What remains to be seen is the actual process of land distribution. By 1980, for instance, MAW had distributed 98,850 hectares free of charge to agricultural producers. The distributed land was equivalent to 16.24% of the overall area under cultivation in 1980 ⁽⁵⁶⁾, which totaled 609,000 hectares. Since that time and during the 1980 - 1985 development plan there have been spectacular increases in the demand for land by agricultural companies and firms, who wished to enter the expanding agricultural market. This was anticipated by the PLDO, which in its principles provides allocations for firms of up to 400 hectares, and up to 4000 hectares for special projects.

Table 4.10 shows the number of plots and hectares allocated for private individuals and firms up to 1984. The substantial increase in

TABLE NO 4.10

LAND DISTRIBUTION BY THE MINISTRY OF AGRICULTURE AND WATER

YEAR	FOR INDIVIDUALS		FOR COMPANIES	
	* Plots	Hectares	* Plots	Hectares
1968 - 74	5711	38,884	0	0
1975	767	5,209	3	520
1976	189	1,091	3	1,200
1977	971	5,682	20	1,007
1978	4140	34,205	21	429
1979	1559	7,813	17	523
1980	6075	29,018	29	2,662
1981	1225	6,282	76	8,968
1982	2709	14,413	124	34,691
1983	8480	47,695	643	205,931
1984	9192	55,332	1225	171,697

Source: Saudi Arabian Monetary Agency Annual Reports, quoted from Middle East Report March - April 1987, P9.

allocation to companies since 1980 indicates a shift in the trend in both agricultural production and land distribution practices. This shift was in favour of allocating increasing numbers of progressively larger plots to the corporate sector. In 1983 alone five companies received 127,500 hectares (57).

The shift in land allocation reinforced, if not heralded, the newly emerging structure of farming in the Kingdom: a structure dominated by highly mechanised units owned by businessmen. This trend was also reinforced by the loans and activities of the Saudi Agricultural Bank, which will be discussed later.

It is interesting to note that almost all of the large agricultural projects and companies are owned by urban businessmen and merchants. Table 4.11 lists most of the largest agricultural companies in the Kingdom. All were established by urban commercial interests, who were attracted by the opportunities and the economic activities generated through the agricultural subsidisation programme.

Although the Ministry subsidises a large number of crops and seeds, none was as successful in generating increased productivity as wheat. That is because wheat, since 1979, began to receive substantial output subsidies (see Table 4.9). This output subsidy offered the farmers a guaranteed price of about six times more than the world market price. It also gave wheat producers a ready made market in the shape of the GSFMO which began to operate in the same year.

The GSFMO operation will be discussed later, but suffice it to say here that wheat production in the Kingdom is now far above domestic need. There is also a severe shortage of storage capacity. In 1984 Saudi

Table 4.11Major Agricultural Companies in Saudi Arabia

- National Agricultural Development Co. 20% State owned. The rest private. About 65,000 hectares in several locations in the Kingdom. Most projects are managed by a US company in partnership with Sulaiman Olayan, a major figure in the Saudi business community.
- Harath Agricultural and Animal Production Co. Government sponsored farming scheme, originally established to encourage settlement of nomads, later opened to private investors (see chapter 2).
- Hail Agricultural Development Co. Privately owned, chaired by the Governor of Hail, Prince Magrin Ibin Abdul-Aziz. This company is the largest producer of wheat; 110,000 tons harvested 1984-85.
- Tabuk Agricultural Development Co. Founded in 1982 by Prince Abdul-Majid Ibin Abdul-Aziz, Governor of Tabuk. Produced 60,000 tons of wheat in 1984-85.
- Saudi Arabian Agricultural and Dairy Co. Originally established as a joint venture between Prince Abdullah al Faisal (75%) and Alfa-Laval and Lebanese interests. Plans to have 25,000 milking cows.
- Al Khorayef Brothers, agent for John Deere. 10,000 hectares.
- Al Watania Chicken Farm. Owned by Sulaiman al Rajhi (one of the richest merchants in Riyadh, who started as a money changer). The company covers 100 sq kilometers; 120 million broilers/hens and 420 million eggs. It supplies nearly one half of the Kingdom's chicken meat and one quarter of its eggs.
- Saudi Agricultural Development Co. Joint venture between Prince Khaled ibin Abdulah and Sulaiman Olyan. Owns various poultry operations.

Source - Various issues of Middle East Economic Digest. Reported in Middle East Report, No 145 March-April 1987 p.10.

Arabia gave Bangladesh 50,000 tons of wheat in food aid; and in 1985 it started selling wheat to several Gulf States.

The fertilizer subsidy, on the other hand, had been instrumental in encouraging small producers, as well as large ones, to improve their farming operation and boost production by applying fertilizers. Table 4.12 presents the total tons of fertilizers subsidised by MAW. It shows that fertilizer use has increased from 18,570 tons to 151,500 tons, an over 8 fold increase, in nine years. The biggest jumps occurred in 1981 and 1982, largely due to increase in fertilizer use for wheat cropping.

The MAW's other roles in agricultural development are through research and agricultural extension services. As seen before, the MAW studies were responsible for identifying the areas of arable land, and it was able to distribute these through the PLDO. It also established 93 extension offices in all the major agricultural areas ⁽⁵⁸⁾. These provide veterinary services, crop management services, and major crops research units, for the benefits of the local farmers.

The total subsidies paid by MAW have decreased since the setting up of the GSFMO, which handles the wheat subsidy. The decrease was also as a result of the discontinuation of per head camel and sheep subsidies. MAW now ranks third in the total amount of subsidies provided by the three agencies. Table 4.13 shows the distribution of subsidies made by MAW by purpose and rank.

It shows that there has been a shift in the amount of subsidies paid by the Ministry, which resulted in the animal subsidy losing its first rank of importance. In 1982 nearly one half of the total subsidies was

TABLE NO 4.12

FERTILIZER SUBSIDIES PAID AND TOTAL TONS OF FERTILIZER USED INSAUDI ARABIA, 1974 TO 1982

YEAR	FERTILIZER SUBSIDIES IN MILLION SR			TOTAL TONS OF FERTILIZER (1000 TONS)		
	LOCAL UREA	IMPORTS	TOTAL	LOCAL UREA	IMPORTS	TOTAL
1982	18.44	57.05	75.49	52.67	98.83	151.50
1981	11.77	36.44	48.21	33.64	58.16	91.80
1980	7.92	11.89	19.81	22.62	23.43	46.05
1979	5.58	12.36	17.94	16.42	25.54	41.96
1978	2.08	9.77	10.85	7.56	19.68	27.24
1977	2.29	6.71	9.00	8.33	13.60	21.93
1976	3.20	3.79	6.99	11.14	8.00	19.14
1975	2.56	13.65	16.21	8.46	18.61	27.07
1974	1.93	3.92	5.85	7.55	11.02	18.57
TOTAL:	55.77	155.58	211.35	168.39	276.87	445.26
AVERAGE:	6.20	17.29	23.49	18.71	30.76	49.47

Source: Subsidy Department, Ministry of Agriculture and Water, Kingdom of Saudi Arabia, Riyadh Saudi Arabia, January 1983.

TABLE NO 4.13

TOTAL DISTRIBUTION OF AGRICULTURAL SUBSIDIES MADE BY THE
MINISTRY OF AGRICULTURE AND WATER BY PURPOSE AND RANK

PURPOSE	SUBSIDIES PAID IN 1982 ONLY			SUBSIDIES PAID FROM 1974 - 82		
	AMOUNT (MILLION SR)	% OF TOTAL	RANK	AMOUNT (MILLION SR)	% OF TOTAL	RANK
Animal	5.47	3.58	5	1,235.05	61.29	1
Cereal	15.05	9.85	3	393.09	19.51	2
Fertilizer	75.57	49.47	1	211.95	10.52	3
Dates	45.85	30.02	2	149.27	7.41	4
Date Palm Trees	8.05	5.27	4	13.69	0.92	5
Potato Seeds	2.76	1.81	6	7.17	0.35	6
TOTAL	152.75	100.00	-	2,010.22	100.00	-

Source: Unpublished study from the Research and Studies Department, Saudi Arabian Agricultural Bank Head Office, Riyadh, Saudi Arabia, 1983.

paid to the fertilizer subsidy. Following it were dates (30%), cereal (10%), date palm trees (5%), animal (about 4%), and potato seed (2%).

2. Agricultural Credit and Subsidies through the Saudi Arabian Agricultural Bank (SAAB)

SAAB has perhaps been the single most effective agent in the transformation of the agricultural sector, and the transferal of modern technology to the essentially traditional production operations. The role of SAAB is to provide the agricultural operators with interest free loans and credit. It is also responsible for the payment of certain subsidies to agricultural producers. These subsidies are listed in Table 4.9, and include agricultural machinery, engines, pumps, poultry and dairy equipment and fishing equipment. SAAB, therefore, is responsible for the most important elements of agricultural development in the Kingdom at present.

The Bank provides two types of loans:

1. Short term loans for inputs on a seasonal basis. These inputs include fertilizers, seeds, ploughing, fuels, and farm hands' wages. These inputs are mostly not covered by any subsidy policy, and the farmers are required to repay the loans for them fairly soon after the farming season.
2. Medium term loans. These are loans for agricultural machinery, land improvement, irrigation equipment, construction of farm buildings, the buying of livestock and poultry, and other items needed to operate the farm. These loans must be repaid over a period of ten years after obtaining the credit.

The short term loans have always formed a very small percentage of the total credit extended by the SAAB, and the demand for them has been decreasing substantially in recent years. In 1982 short term loans accounted for 1% of total loans extended by SAAB. They totalled SR 29.46 million which represented 556 loans only (5%).

The medium term loans formed the cornerstone of the bank's activities. These have increased from SR 4.26 million in 1965 to SR 2,903.44 million in 1982 (see Table 4.14). Of the total of SR 8.7 billion given through medium term loans since 1965, specialised projects received 19.48% or SR 1.70 billion (see Table 4.15). The Bank also lent SR 1.46 billion (16.65%) to buy farm machinery, and SR 1.46 billion (4.80%) for spare parts. 29.71% of total loans went for engines, pumps and drilling.

As seen in Table 4.15, specialised projects have started to be the largest obtainer of credit from SAAB since 1978 and have steadily increased since 1980. In 1982 25.40% of all loans went to agricultural projects (see Table 4.16). These projects were mostly large wheat producing projects, dairy farms and egg and poultry projects.

The trend continued in later years and was reinforced by the new regulations of the bank's lending code. The new code was meant as a way of tightening up the lending operation. The new regulations stipulated that no new loans are to be extended to those who were unable to meet their annual repayment scheme. Old and traditional deeds, moreover, were now unacceptable as security against new loans. Good feasibility studies of new agricultural operations and projects must be submitted in order to obtain credit. These regulations were designed to reduce the huge pressure of demand experienced by the

TABLE NO 4.14

TOTAL SHORT TERM AND MEDIUM TERM LOANSPROVIDED BY THE SAUDI ARABIAN AGRICULTURAL BANK1965 TO 1982 (IN MILLION SR)

YEAR	LOANS			AVERAGE SIZE OF LOAN	GROWTH RATE
	SHORT TERM	MEDIUM TERM	TOTAL		
1982	29.46	2,903.44	2,932.90	78,323.51	15.89
1981	39.23	2,491.64	2,530.87	56,081.95	124.23
1980	22.73	1,105.95	1,128.68	57,056.22	59.18
1979	15.29	693.79	709.08	29,845.61	21.07
1978	43.71	541.96	585.67	28,853.50	19.56
1977	17.29	472.55	489.84	22,914.27	81.81
1976	8.24	261.19	269.43	13,675.42	85.18
1975	7.18	138.32	145.50	8,953.63	300.83
1974	3.54	32.76	36.30	6,705.54	85.20
1973	2.92	16.68	19.60	4,376.48	18.36
1972	2.27	14.29	16.56	4,284.11	(-) 0.42
1971	2.58	14.05	16.63	3,795.40	3.04
1970	3.01	13.13	16.14	3,704.34	16.28
1969	1.68	12.20	13.88	3,777.11	15.47
1968	1.54	10.48	12.02	3,220.74	(-) 8.80
1967	1.08	12.10	13.18	4,190.27	47.59
1966	0.30	8.63	8.93	4,644.86	103.42
1965	0.13	4.26	4.39	7,023.36	-
TOTAL	202.17	8,747.42	8,949.59	---	---
AVERAGE	11.23	485.97	497.20	37,393.72	58.11
% OF TOTAL	2.26	97.74	100.00	---	---

Source: Saudi Arabian Agricultural Bank, Eighteenth Annual Report, 1401/02 A.H. (1982) and earlier issues, Kingdom of Saudi Arabia, Riyadh, S.A. 1982, p 26. Quoted in unpublished internal SAAB study.

TABLE NO 4-16

DISTRIBUTION OF SAUDI ARABIAN AGRICULTURAL BANK LOANS OF 1981BY PURPOSE (IN SR MILLION)

PURPOSE	NUMBER	AMOUNT	PERCENT OF TOTAL
Engines	20,156)		
Pumps	17,059)	350.60	11.95
Well Drilling	-	412.01	14.05
Agricultural Machinery	330 Tractors		
	31,496 Accessories	404.53	13.79
Spare Parts	-	171.51	5.85
Vehicles	4,509 ha	107.09	3.65
Land Cultivation	0.67 million ha	336.00	11.46
Farm Buildings	-	242.32	8.26
Animals for Breeding	-	65.26	2.23
Fishing & Book-keeping	-	-	
Miscellaneous	-	98.58	3.36
Agricultural Projects	149	745.00	25.40
TOTAL LOAN		2,932.90	

Source: Saudi Arabian Agricultural Bank, Eighteenth Annual Report 1404/02AH, Riyadh, Saudi Arabia 1982, pp 27-28. As reported in SAAB unpublished internal study in 1983.

Agricultural Bank. They were also meant as a means of combatting any unproductive and inefficient agricultural growth. The enforcing of these regulations meant that a great number of traditional farmers and agricultural operations were partly excluded from the credit facility. This is because they had been the most likely to be delinquent in their loan repayments, and the least likely to produce a good feasibility study for agricultural projects.

The issuing of a formal acceptable deed of ownership of agricultural land is a lengthy and complicated process, which is partly controlled by the government central agencies. What this amounts to is that the farmers are often reluctant to start the processing of the deeds of their property ⁽⁶⁰⁾, even if in fact they possess the ability and knowledge for such an endeavour.

In 1982, there were 54 SAAB offices in the Kingdom .34 of these were developed offices able to operate with adequate staff ⁽⁶¹⁾. The main branches, however, are situated in the major urban centers of the Kingdom. This created a bias in the Bank's lending operation towards farmers and agricultural projects situated near those urban centers.

Another bias is also apparent if we compare the amounts lent through the Bank's different branches. In 1982 SAAB reported that it had lent SR 2,903,445,663 through its 12 major branches. Of that total, SR 1,544.72 million, more than half was lent through the three branches of Riyadh, Al-Kharj and Buraidah ⁽⁶²⁾. The first two are located in the central region; the third is the largest city of the northern region. This may indicate that the lending operation of SAAB has favoured the newly emerged agricultural sector in the center and north of the Kingdom over the more traditional in the south west of the country.

This trend has continued in later years. In 1985, for example, 80% of SAAB's loans went to the agricultural sector in the northern and central regions ⁽⁶³⁾. Such a bias may stem from the following reasons:

1. Large landholdings in the agricultural sector have been emerging predominantly in the northern and central regions, which have been shown to have vast areas of uncultivated arable land. These lands, moreover, are thinly populated unlike the agricultural areas in the south west. The modern methods of cultivation, furthermore, require larger plots of land which is not the dominant pattern in the traditional farming areas. This consequently has discouraged small farmers from enjoying the benefits of agricultural credit and subsidisation in the Kingdom. Virgin land projects were therefore destined to be the major beneficiary of the development programme.
2. Wheat production has been targeted since 1977 for a massive development scheme. The ecological and economic structures of the central and northern regions have been ideal for such a development. That is because modern wheat cultivation requires huge and level areas of land, which is not available in the mountainous and hilly Asir region. It also required a high capital investment level, which may have discouraged small farmers from entering the modern wheat production operation.
3. The recency of the operational structure of the governmental agencies administering the agricultural programme and policies, coupled with the huge size of the country, may have contributed to the favourable position of the agricultural regions nearer to the centre. The push for accelerated development did not

allow time for the gradual growth of the apparatus of the central agencies. This, no doubt, excluded some of the remotest agricultural areas from experiencing and benefiting from the development policies.

Despite all of the above limitations of SAAB as an agent of overall development in the country's agricultural sector, it is without doubt responsible for the spread of modern agricultural machinery and mechanised farming units in the Kingdom. The generous subsidies provided by the government through SAAB for dairy, poultry and egg production, as well as modern irrigation equipment, has been responsible for the increase in output in those areas of the agricultural sector.

3 The Grain, Silo and Feed Mill Organisation

Since the beginning of the GSFMO operation in 1977, it has been mainly concerned with the administration of the wheat price subsidy. It receives the wheat output from the farmers, stores the wheat and pays farmers the set price by kg. *The price support was at its highest during the years of 1979 to 1984 at SR 3.50/kg. The farmers are now paid SR 2.0/kg, and this price is guaranteed to continue until 1989.*

The wheat price support has been the fastest growing subsidy in the Kingdom. By 1982, the total amount paid by the GSFMO was SR 1,252.80 million, which is 20% of the total agricultural subsidies paid by the Kingdom. It was estimated, however, that 70% of the total subsidies paid to farmers since 1965 and up to 1985 was paid by the GSFMO.⁽⁶⁴⁾

The spectacular increase in wheat production was not only a direct

result of the premium price given to the farmers. It was also due to the advantages offered by the existence of the GSFMO organisation. These advantages include the guaranteed elimination of the costs of storage and marketing of wheat. There are no limits placed on the amount of wheat bought by the organisation, or sold by the producers. The price support of wheat and the GSFMO were successful in reversing the negative trend of wheat production during the 1970s. After a minus 7.57% (see table 4.17) growth rate between 1973 to 1980, the annual growth rate reached 181% in 1982. The fall in wheat production during the 1970s was due to the fall in demand, and the low prices offered for wheat.

Since the beginning of the wheat development programme, a considerable wheat producers' lobby has been created. That lobby has been instrumental in combating any changes to the present policy of wheat subsidisation. In 1984, for instance, the government imposed delivery quotas on the largest producers. The wheat lobby, however, persuaded the government to revoke that order. Since then the government has resorted to delaying payments to the largest producers, which has not been a very effective means of halting the wheat production bonanza. Meanwhile, the GSFMO undertook a crash programme of erecting silos, which were to relieve the severe storage problems and speed up the wheat receiving operation. Storage, nevertheless, continues to be a problem for both the GSFMO and the producers themselves⁽⁶⁵⁾. The economic burden of the wheat programme has been a major problem for the government since the decline in the oil prices and the reductions in the national budget.

TABLE 4.17
TOTAL PRODUCTION OF VARIOUS CROPS (BOTH SUMMER AND WINTER CROPS)
1393/94 TO 1399/1400 A.H. 1973/74 TO 1979/80
IN THOUSAND TONS.

CROP	YEARS						CHANGES IN TOTAL PRODUCTIVITY 1393/94-1399/1400
	1399/1400 A.H. (1979/80 A.D.)	1397/98 A.H. (1977/78 A.D.)	1396/97 A.H. (1976/77 A.D.)	1395/96 A.H. (1975/76 A.D.)	1394/95 A.H. (1974/75 A.D.)	1393/94 A.H. (1973/74 A.D.)	
Wheat	141.7	119.9	124.6	92.5	132.0	153.3*	(-) 7.57%
Millet	8.6	13.0	12.6	16.6*	10.6	11.5	(-) 25.22%
Sorghum	109.3	152.1	139.0	153.4*	127.9	115.9	(-) 5.69%
Raize	1.0	1.3	4.0	7.2*	1.7	3.8	(-) 73.68%
Barley	5.5	14.8	13.5	12.0	16.7*	15.4	(-) 64.29%
Sesame	1.1	1.3	2.2*	1.6	0.5	0.9	22.22%
Tomatoes	200.1	166.5	196.6	164.9	301.4*	201.0	(-) 0.45%
Potatoes	7.6	4.6*	-	1.0	0.5	1.5	71.31%
SQUASH	35.6*	22.6	33.6	15.1	7.5	3.0	15.58%
eggplant	24.7	21.3	25.3	20.5	19.2*	22.7	8.81%
Pera	9.4	2.6	11.6	4.6	14.8	20.0*	(-) 53.00%
Carrots	5.4*	3.9	2.9	1.4	5.4	1.0	540.10%
Dry Onions	59.5	95.0	106.1	74.4	50.5	152.0	(-) 60.86%
Melons	27.5	16.4	23.1	9.0	26.3	53.0	(-) 48.11%
Watermelons	112.1	140.1	282.6	248.4	271.4	120.5	175.60%
Alfalfa	977.9*(a)	604.6	473.8	541.5	101.8	120.3	712.88%
Dates	342.3	411.4	382.3	256.9	337.3	360.1	(-) 4.94%
Onions	39.7	28.9	25.4	20.6	19.5	18.9	110.05%
Grasses	26.7	35.9	42.3	41.7	61.3	30.7	84.69%

* Highest production

(a) Figure derived by multiplying the total donoms times the average productivity.

Source: Central Department of Statistics, Statistical Yearbook, 17th Issue, 1401 A.H. (1981 A.D.) and earlier issues, Ministry of Finance & National Economy, Kingdom of Saudi Arabia, Riyadh, S.A., 1982, pp. 489-505. The Yearbook did not report figures for 1398/99 A.H. Quoted in SAAB internal paper 1983.

4. Some Problematic Issues in the Agricultural Development Plans

Despite the obvious gains of the "success story" of agricultural development in Saudi Arabia, there are major problems that plague it. Difficulties can only be expected from the implementation of such a radical programme in an arid zone with a traditional agricultural sector. The major problems, however, were not in the process of implementation, but in the process of formulation. This section will highlight some of these problems, because they do not receive the same amount of attention that the gains command.⁽⁶⁶⁾

The gains and developments in the agricultural sector in Saudi Arabia have captured the attention and imagination of the popular press nationally and internationally, partly because of the low expectation generated from an agricultural development plan in such an arid zone with a very traditional rural population. A degree of success has been proved possible, which is not surprising if we consider the economic capabilities available to the government. What remains to be seen is whether or not the development programme has chosen its targets wisely, and has reached its set goals satisfactorily.

The one term that may describe the problems inherent in the development programme and subsidies is "lopsidedness". This is clear at many levels. At the structural level the policy has favoured growth over balanced and integrated development. It also favoured the production side of agricultural development over the development of the agricultural market and consumption practices. One mode of agricultural production, moreover, was favoured over other modes of production. At another level, furthermore, certain agricultural activities were pushed ahead of agricultural education and research.

The subsidisation programmes, it seems, have run ahead of actual development of the sector. The resulting growth has therefore been artificially supported. This is painfully clear when we consider the labour force involved in modern agricultural production operations. The Saudi nationals comprise the owners, managers and high officials of the agricultural sector. Foreign labour comprises the skilled workers, the researchers and the manual workers. This is especially true in the highly mechanised agricultural schemes and operations. In one large wheat producing and dairy farm visited by this researcher, the only Saudi working in the project was the owner. Even the white collar workers and drivers were not Saudis. The continuation of these projects in the long run is an overriding concern.

The major elements of lopsidedness in the development plan are the following:-

(1): Growth versus Integrated Development

The agricultural development policies, as mentioned above, were the government's response to certain features of the economic situation in the 1950s and 1960s. These were: a) the dominance of the oil sector in the national economy; b) the stagnation of the productive sectors in the national economy, especially the agricultural one; c) the increase in rural - urban migration, especially by the male labour force; and d) the increasing differentiation between incomes and lifestyle of the rural and urban population in favour of those in cities and urban centres.

The continuation of these features would have posed countless problems to the Saudi government. It would also have threatened its legitimacy

in the eyes of its traditional population. In 1972 Saudi Arabia had been 40 years in existence, but the modern sector had not started to grow until the 1950s. The 1974 oil price increase, and the substantial surplus in the national budget, allowed the government to think ambitiously of rural development. The rural infrastructure, however, was largely rudimentary. The educational services, communications and the state apparatus were either in infancy or dominated by traditional values and customs.

Agriculture was also largely traditional in nature, and the rural population were lacking modern skills and experience. This was clear to the Saudi officials, who began in the early 1970s a determined effort to develop these aspects in the rural sector. In 1975, however, these efforts were at an early stage, but the government nonetheless adopted a high profile accelerated growth model of development as regards the agricultural sector.

The aims of the development policy, according to the third development plan, were: to increase the output and contribution of the agricultural sector, to develop a prudent level of strategic food production, and increase the level of agricultural incomes ⁽⁶⁷⁾. The question arising here is whether or not increasing output, the level of strategic food production and incomes of producers does amount to "development" or not.

The obvious answer is no. Output may be increased through rapid exploitation of the limited natural resources of the nation. It can also be increased through the erection of large agricultural projects and farms without greatly affecting the majority of the rural population, as was partly the case in Saudi Arabia. Raising the level

of production and output of strategic food, on the other hand, does not necessarily mean independence. Saudi Arabia in its effort to raise wheat production had to import most of its agricultural machinery, seeds, fertilizers, pesticide, herbicide and most importantly skilled labour from the developed countries. Manual labour was also provided by foreign sources.

The raising of incomes to the agricultural producers, moreover, does not amount to development, if not accompanied by self-sufficiency and efficiency. It may only be another method of the redistribution of the oil wealth, especially to those who least need it in the rural and urban sector. This would be the case if the targets of the policies were not the small and traditional producers in agriculture.

If the agricultural policies had been intended to promote a balanced development of agriculture, with an emphasis on increasing strategic food supply at minimum cost to the environment and nation, then all the positive elements of development would logically follow through. There would be an increase in the strategic food supply and the incomes of operators. There would be improvements in the use of the scarce resources and in the conversion of fallow land for productive uses. There would also be a reduction in the imbalance of trade and an improvement in rural living standards.

An integrated development plan of the agricultural sector must first consider the infrastructure of the sector: its land, natural resources and labour resources. Its basic aim must be the construction of the elements needed to achieve development. These elements include the reconstruction of the land utilization system in line with the set route of development, establishing the basic links between the modern

sector and the rural one, the promotion of agricultural education and research, and the establishing of a well organised and modern marketing operation.

The emphasis placed on growth by the development plan in 1975 have greatly distorted the development process. The policies which were implemented to spur growth were not always harmonious with earlier policies, nor were they consistent with an overall development of the rural sector. The land distribution policy is a case in point. How can individual farmers owning 10 hectares of land, allocated to them by the PLDO, participate in modern agricultural production, in which the smallest irrigation machine requires 25 hectares of land?

The traditional farmers were left behind in the interest of growth because their landholdings were not in keeping with the emerging patterns of cultivation. This of course resulted in a sector dualistic in nature, with the majority of improvements and growth concentrated in the arena of large farms and agricultural firms, which in the majority of cases originated from the urban and modern sector.

(2): Production Versus Marketing

A major element of integrated development, as one agricultural economist put it "is the simultaneous development of production, marketing and consumption sectors. Otherwise the end result will be frustrations and the waste of the nation's scarce resources." (68) This unfortunately has been lacking in the Saudi agricultural development programme. The lack of development of the marketing system is operative at two levels: a) the continuation of a traditional and inefficient marketing system for local and foreign produce, and b) the

continuation of free and excess imports of goods currently produced in the Kingdom.

The various incentives in agriculture and the subsidization programme have been mainly on the production side of the agricultural operation. The end result of these incentives has been a substantial growth, which will increase further in the coming years. The marketing system, however, did not receive any substantial improvement even in the 1980s. What was more surprising and ridiculous was that the importation policies have not yet been sufficiently altered to encourage and justify local growth.

A report by Hari Marhatta submitted to SAAB in September of 1982 shows that importation of wheat, eggs and poultry were increasing even when the local production had increased. Furthermore, a dairy farmer has to compete with a manufacturer who imports dried milk which is subsidized by the government and makes yogurt, buttermilk (Laban) or even so called fresh milk⁽⁶⁹⁾.

Local vegetable produce, which has high production costs, cannot compete with freely imported goods which have been produced cheaply. The retailers and consumers would naturally prefer the cheaper and better quality imported goods. A survey of the vegetable and wholesale market in Riyadh was conducted by Abdul Rahman Al-Seikh in 1970.⁽⁷⁰⁾ A similar and briefer survey was conducted by an informant of this researcher, as part of the field work effort in 1987 (discussed in chapter 6). What was striking is the similarity between the findings of Al-Sheikh and those of the later survey. Both surveys found that al-dalal (literally, auctioneer), also called the middleman by the farmers, who customarily handles the auctions and sale of the

agricultural produce to local middlemen and retailers, was the only link in the agricultural operation who was guaranteed success and profitability. Al-dalal receives between 2.5% to 5% of all transactions. The retailers were subject to market and demand fluctuation, and the local producers were the least likely to benefit from the traditional marketing system.

The main reasons for such a position are: (a) the lack of restriction on agricultural imports, even of items also produced locally; and (b) the lack of a modern marketing system with storage facilities and links to all the national urban markets. Al-dalal does not buy from the farmer, nor does he store goods. He only handles the sale, having regard to market conditions. If the goods are not sold shortly after delivery, they are returned to the farmers. In most cases further transportation to other urban markets is out of the question because of the perishable nature of the goods, the long distances involved, and the increase of the costs to the farmer. Unwanted goods are therefore usually destroyed.

The sale of agricultural produce, on any given day, is governed by the amount of similar produce received at the market, be it local or imported. The imports, which are usually transported and stored in refrigerated trucks have the best chance of succeeding, in as much as they are: produced cheaply in their country of origin, better packed, untaxed upon entering the Kingdom, and of better quality. Local producers, however, must sell at any price to reduce their loss. The result of all this is waste, disappointment and discouragement of local production. Farmers throughout the field work period maintained that vegetable and fruit cropping is unprofitable, and insisted that the

selling prices did not even cover the transportation cost.

The recent development in agriculture, which created highly mechanised and modern farming operations, has introduced certain modifications to the previously drawn picture. Greenhouse producers of vegetables and fruits have better packing and transportation methods, which have raised the quality, size and life cycle of the vegetables and fruit produced locally. These produces, moreover, have been pushing for the creation of a modern system of marketing, which will include better storage and transportation facilities. Surprisingly, the agricultural agencies of the government have been resistant to the creation of a co-operative marketing operation. In 1987/88 there have been two refusals to this demand from the large producers' lobby. On the other hand, there have not been great strides in changing the importation policies.

The reasons for such resistance to co-operative marketing and the alteration of the importation policies (as regards goods produced locally) is not very clear. It could be, however, due to the pressures felt by the government from import based businesses and commercial ventures. The habits and attitudes of the general public to consumption, moreover, have not yet been attuned to the value of encouraging local products.

Wheat production posed no such hazards to Saudi producers. They were guaranteed success, no matter what the conditions of the market. The worry of storage and marketing has been largely transferred to the shoulders of the government. This resulted in huge mountains of wheat stored in official siloes. What can be the use of subsidisation and huge investment if the local producers cannot sell? It would have been

a better investment to look at developing the market before products were grown. Once producers, especially small ones, have to close their operations because of the deficiency and the inefficiency of the marketing system, it is highly unlikely that incentives can bring them back to the agricultural sector.

3: Wheat versus Other Agricultural Products

The U.S. Secretary of Agriculture, John Block, called the Saudi wheat programme "crazy".⁽⁷¹⁾ While the motivation and validity of such a statement are at the very least questionable, unfortunately this view has some basis in purely economic terms. Saudi Arabia from 1979 to 1984 paid SR 3,500 per ton of wheat produced locally. Since then it spends SR 2,000 per ton of wheat. Yet by importing wheat it can pay SR 600 per ton of wheat received at one of its major ports.⁽⁷²⁾ The development programme, however, was not concerned with the pure economics of the matter. It sought to restructure and develop the agricultural sector through heavy investments, because importation in the final analysis was seen as mainly benefitting the producing countries.

Wheat, as one of the staple foods of Saudi Arabia, did actually merit investment. The level of investment and attention, however, have tended to disadvantage the other needed staple and other products which should be and could be produced in the Kingdom. These products include oats, millet, sorghum, barley, vegetable and fruits. It has also spurred growth by encouraging sections of the non-rural population to go into agriculture. What this amounted to is the greater use of the natural resources without a great diversification of agricultural products and local food supply.

The government's decision to support wheat at the premium level, and its purchase through the GSFMO, has distorted the resource allocation for both the government and the local producers. Nothing has been and is as profitable as wheat since 1977. The inflexibility of the price support and subsidisation programme, and the failure of the government to implement policy changes as soon as they were needed (1983-1984), continued and multiplied this process of misallocation of funds. It also created a surplus of wheat and problems of storage that the Kingdom can do without.

Furthermore, wheat production even at its highest level of profitability, production, and efficiency is not a self-sustaining and independent operation. It relies heavily on foreign expertise, technological equipment, foreign spare parts and a foreign manual labour force. John Block, the U.S. Agricultural Secretary, might not have been overly concerned about the Saudi wheat programme if he had anticipated the increase in U.S. exports of agricultural machinery generated by the Saudi producers' demand, who have based their wheat producing operations on the American and Australian models of production.

Moreover, the extraction of water has rapidly increased with the growth of agricultural activities and wheat production. The digging of wells, however, is a very expensive operation (see Table 4.5 in section II) and it is no longer covered by a subsidy from SAAB. What this means is that the heaviest drain of the water resources has to be by those who can afford digging a well for each one or two of their irrigation systems. The increase of the amount of water during irrigation is considered one method of increasing productivity and yield per hectare in an arid zone like Saudi Arabia.

Land productivity and the nutrient content have been adversely affected by the cultivation of wheat year after year in the same plots. Crop rotation, a basic element in efficient farming, has been championed by the Ministry of Agriculture's extension services.⁽⁷³⁾ Their warnings, however, have not been heeded by the majority of small and large producers, which resulted in a gradual decrease in the rate of tons produced per hectare. The reason for such a situation does not only stem from the farmers' inexperience and lack of agricultural education, but also from the lack of incentives for crop rotation and the high profitability of wheat production.

The development plan for the agricultural sector would have been more positive, if it had identified its targets more carefully, and been ready to alter policies and effect changes more quickly and efficiently. The resulting growth would not have been counterproductive in the long run. A slow, self sustaining and balanced development of a larger number of agricultural products, which affect the majority of farming areas in the Kingdom, would have been preferable to a situation of waste and rapid exploitation of the natural resources.

The above three areas of contention in the evaluation of the agricultural development programmes were only sketched in outline. Contained in each one of them are specific issues which need some highlighting. two of these are the following:

- A) There has been a lack of strong and concentrated effort in the development of the national agricultural and traditional expertise in the rural side. This has been compromised to the easy option of recruiting

foreign expertise and labour. Specific policies could have been implemented to control the unnecessary growth of this tendency within the agricultural sector, as well as nationally. Efforts in this direction would have reduced the negative effects of wealth, which is generated from the predominantly oil economy.

- B) The traditional occupations, be it traditional farming or nomadic pastoralism, have not been accorded their due share of respect, attention and development efforts. Little attempt was made to build new structures resembling the old. Agricultural production was offered to the nomads as a better option for the improvement of their living conditions and economic status. The traditional occupations, which are usually based on the collective exploitation of the natural resources, have been gradually altered through the land distribution and the agricultural development programme to a new structure in which individual and modern relations of production are dominant.

A modern co-operative farming structure would have been an option that is not wholly alien to the traditional environment. It would also have been a better method for conserving and controlling the use of the limited natural resources.

The Islamic traditions and hereditary laws, moreover, tend to favour collective ownership between family members and blood relatives. This has been the major reason for the fragmentation and "morcellement" ⁽⁷⁴⁾ (parcellization) of agricultural land at present and more particularly in the past when small landholding was more dominant. Co-operative farming

would have done away with this problem. The PLDO policy of granting adjacent lands to brothers could have been taken a step forward towards a model where collective farming is possible. This would appear more realistic, if we consider that villages and settlements are usually formed by kinship groups, who strengthen their blood alliance with marriages between cousins and other close relatives.

5) The Saudi Agricultural Sector and Rural Development

So far, this chapter has avoided any reference to the theoretical conceptualization of the literature on rural development. This is mainly because the vast area of investigation goes beyond the scope of this study of nomad sedentarization. It is necessary, however, to try to place the regional development within one aspect of the study of rural development, namely that of planned and policy-inspired social change.

A. The General Context of Development

Since 1973 and the oil price increase, all aspects of the Saudi experience of development have been state inspired, and financed by the oil revenues. The Saudi government's ambitious programme for development was not conceived mainly through the development of the rural sector, but through the diversification of the economy through industrialisation in the oil sector. The latter programme included the construction of the industrial cities of Jubail and Yanbu at a cost of more than SR 200 billion or \$60 billion (completed in 1987). These two cities were built to house the industrial projects of the predominantly

publicly owned Saudi Arabian Basic Industries Corporation (SABIC) ⁽⁷⁵⁾. SABIC projects (of which there are ten) are capital intensive, highly technical and petroleum based industries (six are petrochemical companies).

The heavy investments by the Saudi government into the above industrial projects and the General Organisation for Petroleum and Minerals (Petromin) are seen by observers as the major step toward the diversification of the economic base of Saudi Arabia.⁽⁷⁶⁾ The agricultural sector, by contrast, has received substantially less attention than the industrialisation programme,⁽⁷⁷⁾ despite having an impressive level of subsidization and investment. Its allocation in the national budget, furthermore, had decreased in recent years. Since the high point of SR 3.5 billion for agricultural projects in 1982/83, the figure decreased to SR 2.7 billion in 1983/84, and the Saudi agricultural bank was only allocated SR 2 billion in the same year.⁽⁷⁸⁾ The development programme for the agricultural sector, furthermore, is predominantly through private enterprise; and it is not as well integrated as the industrial sector (see previous sections).

Niblock noted in 1982 that systematic social research activities into the socio-economic consequence of the development of the Saudi society have been hampered by the general official sensitivity to many of the important issues, and the general lack of knowledge of the decision making process.⁽⁷⁹⁾ He also notes in another context that academic works on the oil rich Gulf states are mainly focussed on those aspects of direct concern to external interests; such as issues relating to maintaining the access of western powers to the Gulf oil, or the means through which petro-dollars can be recycled back into the Western

economy.⁽⁸⁰⁾ Some of these works can also be "well-paid literature that is merely propagandist",⁽⁸¹⁾ which may well originate in the Gulf area, as well as outside it. Another element obstructing systematic study of Saudi Arabia is the unavailability of basic statistics (until the 1974 census), and their unreliability even when they exist.⁽⁸²⁾

Nonetheless, the available literature on Saudi development may be viewed as representing two broad approaches. Firstly, there are works which originate from conventional economic analysis,⁽⁸³⁾ and which base their discussion mainly on the pure economic indicators of the Kingdom. These indicators are highly impressive and include a GDP per capita that was calculated at \$11,260 in 1980 (only \$100 less than that of the United States).⁽⁸⁴⁾ They also show a rapid economic growth and a process of transformation of the national productive sectors. The absorptive capacity of the economy has also been a major area of national emphasis recently, which is seen as a good projection of the Saudi economic future.

Studies of this kind are of course well aware of all the limiting factors (characterised as traditional) in the country, i.e. labour, political and ideological issues, which impede economic development. These, however, are viewed through an evolutionary perspective, which sees them as bound to lessen with the spread of education, and the final transformation and modernisation of the economy.

The second broad approach is through works that highlight these problem areas in an effort to characterise the nature of the political, economic and social structure.⁽⁸⁵⁾ These efforts, however, are hampered by the limited nature of the data available (see above).

Included in such approaches are invaluable studies of the labour issues,⁽⁸⁶⁾ and the dependent nature of the Saudi political economy on Western powers (both historically and at present), especially on the United States of America.⁽⁸⁷⁾

Studies of the latter kind increase our understanding of hitherto little discussed areas of the Saudi political economy, but on the whole they do not amount to a systematic treatment of economic development from an alternative approach. Certain studies exist, however, which attempt to conceptualize the process of development through a dependency theory perspective.⁽⁸⁸⁾ Rosemarie S. Zahlan offers a historical account of the dependent relationships between the Gulf States and the Western powers involved in their territories before, during and after the discovery of oil. She shows how the dependent economic relations existing in the pre-oil era have been transformed and strengthened by the discovery of the new resources available in the region. The western powers have spared no effort, especially in relation to guaranteeing political protection of the leading national elites, to induce the oil producing nations to enter into economic relationships with them.⁽⁸⁹⁾

More recently there have been some studies which explore the Saudi development policies in terms of the country's external political and economic partners. For example William Ouanet in 1981 characterised the oil sector in Saudi Arabia as heavily influenced by the Americans, despite the final complete takeover of Aramco in 1980.⁽⁹⁰⁾ He goes on to describe the economic development of Saudi Arabia as centrally influenced by American assistance.⁽⁹¹⁾ All aspects of the modernisation programmes were designed in consultation with American companies and experts. These include the national airline, the

desalinisation project, the hospitals, the military institutions, and of course the petrochemical complexes in Jubail and Yanbu. He concludes that the Saudis cannot avoid a close connection with the U.S. economy, and that the future of Saudi Arabia depends in large measure on its relationship with the United States.⁽⁹²⁾

A recent PhD thesis in 1984 takes the same view of Saudi development. Khalid Khuthaila sees a double dependency: one that characterises the economy as dependent on oil revenues (export specialization), and another that guarantees that the route to development is not autonomous.⁽⁹³⁾ The dependency identified by Khuthaila is mainly in the country's trading partnership with the United States, Japan and other Western countries, who supply almost all of its food supply, industrial capital goods and consumption goods. Saudi exports, moreover, reflect the same partnership, despite having marginal oil exports to third world nations. Another dependent feature lies in foreign presence and influence through two means: a) the western and foreign controlled management of the major industrialisation and non-industrialisation development programme, and b) its dependence on recruited foreign labour for all sectors of the economy, including the government. Khuthaila concludes that the dependency perspective is a useful tool to analyse Saudi development, because it brings into sharp focus the basic elements characterising the Saudi society and economy.⁽⁹⁴⁾

Some of Khuthaila's analysis is reminiscent of Jacqueline Ismael's analysis of the Kuwait economy, which she characterises as a dependent surplus economy.⁽⁹⁵⁾ Kuwait, according to Ismael, specialises in the world economy as an oil producer, a market for the commodities of the industrial world, and an exporter of financial capital. This economic

structure involves the recirculation of the capital accumulated through oil exploitation back into the dominant capitalistic system. Any accompanying development of the regional productive sectors is highly dependent upon the incorporation of capitalist technologies, and geared toward the accommodation of a single resource export economy. The latter type of dependency theory analysis is often criticised as having a centralist view of development, since it interprets all areas of social change through the effect of external factors.⁽⁹⁶⁾ It is also determinist in nature, since it gives no option but the continued existence of the dependent relationship.⁽⁹⁷⁾

Nonetheless, the obvious advantage of a dependency approach to Saudi Arabia's development is two fold. On the one hand, it unmasks certain political and economic tendencies which are hidden by a powerful indigenous state, and a strong ideology. Both of the latter elements have tended to reject some of the aspects of the 'westernisation' process of development. Secondly, it also highlights all of the problematical issues inherent in the Saudi economic development, which are somewhat ignored by conventional economic analysis (i.e. the modernisation approach).

B. The Agricultural Sector

The above sketchy but necessary profile of the study of Saudi development is mainly designed as a background reference to the study of the agricultural sector in the country, which takes note of the national development strategy. A good deal of rural development literature follows the modernisation approach or the dependency approach. The first characterises the rural sector as traditional, which gradually acquires 'modernity' through an integration within the

larger political and economic systems. This process takes place through the transferal of technical, social and cultural factors from the modern urban economy to the traditional sector.⁽⁹⁸⁾

By contrast, the dependency approach views the rural sector and population in the less developed countries as remaining in a subordinate position to the urban interests and population. Any processes of social change are mainly designed to syphon off economic surplus; and to generate internal patterns of exploitation, in addition to the unequal relations between the the underdeveloped country and the advanced industrial nations. Other and later strands of this perspective on rural development emphasise the possibilities of the existence of several differing modes of production (traditional or subsistence) within the context of the rural sector, which have differing relationships to the dominant capitalist urban sectors: either by being a source of low wage labour, or as an indirect consequence of the dominant capitalistic modes of production.⁽⁹⁹⁾

While there has not been any systematic study of the Saudi agricultural sector in the context of either of the above approaches, it is perhaps more appropriate to view the developments in the rural side of the economy in the light of planned social change. This is because the bulk of systematic social transformation is a recent phenomenon, which started in the 1970s. These mostly policy instigated transformations take note of the modern rural development programmes and strategies which evolved internationally during the postwar period and were re-emphasised in the 1970s by international agencies like the World Bank.⁽¹⁰⁰⁾ The state's role in these rural development strategies is prominent, and they include policies on land, technology, employment, education and research. D. Lea and D. Chaudhri define these policies

as dependent on sociopolitical perceptions of governments:

"The degree of commitment and consequent action is determined by the nature of the state and its national and international freedom of choice in pursuing an independent and consistent strategy".⁽¹⁰¹⁾

Norman Long distinguishes between two broad approaches to rural planning in the third world: the improvement approach, and the transformation approach. The first aims to encourage agricultural development within the existing peasant production systems, while the other attempts to establish new forms of agricultural and social organisation. The latter approach makes a radical break with existing peasant systems in terms of scale of operation, production techniques, and socio-legal structures.⁽¹⁰²⁾ Both these approaches can of course co-exist within the same national boundaries.

The content and goals of rural development policies are dependent on the ideological orientation of the state. For example the improvement approach was taken up by colonial governments in Africa, India and also by the post colonial Indian Government (1952) in its community development programmes.⁽¹⁰³⁾ The transformation approach likewise may take the shape of a free market model, or that of collective farming in socialist countries.

The improvement approach allows for the continuation of existing land and social institutions, while initiating change through improved extension work methods which encourage increased production and a gradual change to commercialisation. The difficulties often encountered in such an approach are sometimes attributed to the

essential conservatism of the peasants, as well as an alleged tendency to benefit larger landowners who are best placed to take advantage of the capital allocations for improved technology, agricultural credit and the gradual commercialisation of agricultural production.

The transformation approach, on the other hand, calls for a greater level of intervention in the rural sector, and it may be designed to change the existing systems of land tenure, production methods, and the balance of the national labour force between the rural and urban economies. The objectives of the policies in the implementation of transformation are dependent on the socio-political nature of the government, and the particular problems it is facing. The majority of the transformation policies in Africa (through settlement or resettlement projects) were through the allocation of private plots to farmers, but there were also some attempts at communal forms of land tenure (notably collective farming in Tanzania). Centrally controlled marketing systems and technical services, as well as subsidisation and credit programmes, are major features of the transformation approach. These, obviously, vary a great deal between the multitude of the rural transformation models existing internationally. Any study and evaluation of these models, moreover, requires a great deal of appreciation of the concepts employed, the interpretations offered by the power-holders and a detailed knowledge of the regional setting. The whole process is also complicated by ambiguous policies which deal differentially with the separate national sectors, or even within the rural sector.⁽¹⁰⁴⁾

David Lea and D. Chaudhri, in another vein, distinguish between three pure types of rural development programmes,⁽¹⁰⁵⁾ which do not exist in practice, but are distinguished by the following emphases:

1. Emphasis on reciprocity, originating in a strong value orientation which emphasises the group's welfare more than the individual interest. Successful examples of this type of programme include the Kibbutz farming in Israel.
2. Emphasis on social control and ownership programmes. These are post-colonial and socialist strategies, which include collectivization in the USSR, communes in China, and the Tanzanian Ujamaa Villages.
3. Emphasis on market systems programmes. These include the reformist model of rural development in Japan, which is based on redistributive land reforms, and the technocratic attempts at rural development in India, Indonesia and the Philippines.

Within the last orientation of rural development programmes, three pure models of rural development strategies exist.⁽¹⁰⁶⁾ These are the following:

- 1 Free Market Model. The main characteristics of this model are the following:
 - A Large private and commercial farms.
 - B Wage based employment.
 - C An objective to increase output and create investible surplus.
 - D Large landowners as the main beneficiaries.

2 Reformist Model. Its main characteristics are the following:

- A Small, owner/cultivator, labour intensive farms.
- B Unpaid family labour.
- C Objectives to increase output and redistribute income.
- D Middle peasants ('progressive' farmers) as the main beneficiaries.

3 Technocratic Models with the following characteristics:

- A Various tenancy systems co-existing with large private farms.
- B Wage based employment model.
- C An objective to increase output and keep profitability high.
- D Landowning elite as the main beneficiaries.

There is of course considerable overlapping between the various aspects of the strategies and approaches to rural development in a regional setting, in relation to the above models. They are, however, helpful in this effort to evaluate and understand Saudi Arabia's objectives and results in implementing rural reforms and policies.

C. Saudi Rural Development

In the light of the above, there are three marked stages in the Saudi rural policies:

1. Early land reforms (1928 to early 1960s) that were mainly

designed to transform the structure of pastoral nomadism in the country by encouraging settlement, and changing land use among the nomadic population. These reforms underlined the Saudi commitment to private ownership of land.

2. Later land reforms (through the PLDO, 1968) which allowed two types of development:

A) One, continuous with the traditional form of land tenancy in the agricultural sector, which encouraged small owner/occupier, labour intensive methods of production. These reforms were based on land distribution of 5-10 hectares of land to private individuals. The main beneficiaries of these reforms have been landless *nomads and peasants*.

B) Another policy of land distribution, which is targeted to encourage big commercial agricultural enterprises by allocating large sized land to companies and corporations (400 hectares). The main beneficiaries of this policy are the existing large farmers and the urban based commercial interests. We may also include within this tendency the land allocations through the traditional *Iqta* system, which tended to favour the tribal elites of the country and produced similar consequences.

3. Upon these differential land distribution policies, a new policy for the development of the agricultural sector in the mid 1970s was built. The main objectives of this policy were

a) increasing output, b) redistribution of income and wealth, c) transferal of technology, and d) expanding the role of private enterprise in the development of the agricultural sector. The route for such objectives lay through huge agricultural credit facilities, subsidisation of agricultural machinery and the price support for wheat.

The outcome of such policies was two fold. One was a total transformation of the production methods, especially for those large landowners who are better placed to benefit from the wheat price support (still operative). The other was to improve production among the smaller landholdings through the application of better agricultural methods and technology.

From the above we can see the two approaches to rural development (outlined by Long) co-existing in Saudi Arabia - namely that of transformation and improvement. It must be remembered, however, that the agricultural sector is basically limited in Saudi Arabia, because of its arid conditions, and the uncertainty of its water resources. There is also a certain amount of overlapping in the policies of the government between the reformist and the technocratic models, because there is an element of redistribution of wealth, especially when we consider the implications of the subsidisation and wheat price policy for the smaller farmers.

In another vein, the Saudi Arabian economy is marked by its wealth as an oil exporter, and the recency of its development efforts. The gap between the existing skills of its labour force, and the skills requirements of its agricultural policies (emphasising transfer of technology), have been temporarily filled by the recruitment of skilled

and unskilled foreign labour. This tendency may discourage policies aimed at the development of the indigenous labour force, and encourage the dependent nature of the whole economy on the oil revenues and western technology.

The 'modernisation' approach to rural development, moreover, does not take account of the ideological elements embedded in the Islamic tenure and inheritance laws. This may lead in the future to the gradual fragmentation of landholdings, which is not in keeping with modern agricultural production. The push for commercialisation in the policies is also not backed by the development of the market, but it is dependent largely on the state's financial ability to carry the cost of the wheat programme. This latter programme may be criticised by the modernisers, as well as those of differing orientation, because it does not meet either the logic of the 'free market' nor that of an integrated self-perpetuating independent economy. This in turn is because it is wasteful of valuable financial resources, as well as of finite water resources.

Conclusion

As seen in section 1 of this chapter, the Saudi agricultural sector suffers from severe limitations that affect its natural resources, as well as its human resources. The limitation of the natural resources is in relation to the availability of underground water, and the ecological condition associated with a desert and semi-arid zone. The limitations of the human resources, however, were mostly due to the lack of development, and the isolation experienced by the rural population from the modern sectors of the economy during the formative years of the 1950s to the early 1970s. This resulted in stagnation,

and a prevalence of very traditional methods of production.

The land reforms, which were virtually the only form of change experienced by the agricultural sector, were designed at the beginning to serve political ends. Not until 1968 and the PLDO were they redirected to promote development and growth. The land distribution policies, when they were implemented, were dualistic and incoherent. Some policies (the Iqta system) originated from the traditional values still strongly upheld by the nation at large, and by the rural population. Other policies (PLDO) originated from the modern sector, but were designed for the continuation of a traditional agricultural operation, as regards size and method of operation.

The land policies resulted in a differentiated pattern of landholdings among the rural population. That differentiated pattern may only have been incipient in the year before the agricultural incentives and the development programme, but it was quickly realised after interest in the ownership of agricultural land grew nationally. The land policies, moreover, were not designed to promote agricultural growth within the already existing and more productive areas, like the regions of dry farming, but to expand production wherever possible. These virgin areas were within the boundaries of some traditionally cultivated areas in the Kingdom, especially in the central and northern regions, because the underground reservoirs of water were mainly situated there.

The development plan for the agricultural sector might have taken note of the limited nature of the sector's resources, natural and human. It nevertheless proceeded to promote a pattern of growth that is not in keeping with the ecological factors prevalent in the Kingdom, nor with

the general overall development of the agricultural sector. The wheat programme, for instance, promoted a burst of cultivation according to modern methods, which allowed vast areas of land and huge amounts of underground water to be exploited without greatly benefiting the national economy at large, nor all of the agricultural producers.

Subsidisation can be a great tool for developing the agricultural sector if its targets are the majority of the agricultural producers and products, as was the case in Japan. Subsidisation in Saudi Arabia, however, seems to have limited targets like wheat, poultry, eggs and dairy production. The larger producers and the more experienced groups in the modern sector were also favoured with the best conditions for modern agricultural production, like larger plots of land and larger agricultural loans.

The disparity between the skills needed for the developing patterns of production, and the pre-existing skills and experience in the agricultural sector, has been a problem for the agricultural producers themselves and for the state. Recruitment of foreign skills and labour was the only option open for effecting such quick growth and development. This resulted in a reliance on foreign labour for almost every aspect of the production process - and not only for skilled work. Those who do not have and cannot obtain the skills needed either cannot participate in the development process, or produce at greater cost to the environment.

Regardless of the above issues, the development programme planted the first seeds of a modern agricultural sector. The capital that has been invested by small and large producers, and by the state's generous subsidies and initiatives will be maintained as long as possible. It

is, therefore, imperative that urgent steps are taken to reduce and counteract the effects of past policies and generalise the development over a larger number of products and producers, without losing sight of the delicate balance of the environment. Agricultural research, education and skill must be developed in order to gain a degree of self sufficiency. The small producers and the traditional farmers must be targeted for greater assistance, as regards landholdings and loans. The importation policies must be adjusted to encourage present and future production. The incentives must be generalised and at reasonable levels, which will ensure continued commitment to agricultural production and farming. Development must also include all areas of agricultural economy such as marketing and consumption.

The implication of the past existence and future continuation of the present policies are far reaching, especially for those traditional groups who have little experience of the modern sector and the modern production methods. The sedentarized and non-sedentarized nomads, whether they were able to participate in the development process or not, have special problems to contend with. That is because they are among the most predominantly traditional groups in the country, and the least likely to have the modern sector experience and agricultural skill needed for the present pattern of production.

The nomads, moreover, are targeted by previous policies of sedentarization and land distribution to be included in the agricultural sector. The sedentarized nomads are, therefore, the most vulnerable of all groups to problematic areas inherent in the development process. They are also the most dependent on what the agricultural programme offers. Their previous experience and economic orientation do not have the elements needed for the success and

continued commitment to an agricultural economy.

This is not to suggest that there are basic inherent differences between nomadic groups and sedentary groups. The difference lies only in the degree to which either group is equipped to participate and succeed, participate and fail, or not participate at all. Some nomadic groups are, in fact, advantaged as regards landholdings in the agricultural sector (as was seen in section II of this chapter). Whether or not they are sufficiently equipped in other ways to succeed, and be active ingredients in the development process will be considered below when the case study's population is focussed on.

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Chapter Five

The Patterns of Sedentarization in Sajir

Introduction

The target population in Sajir is presumed to have already undergone a commitment to sedentarism, by being in actual fact practising farmers. The commitment to settlement, however, did not occur at the same time, nor was the path to sedentarism unvarying.

This chapter will be divided into two sections. The first task of the first section is to define the variable "sedentarism", in order to have a clearer conceptual view of what the sedentarization process entails. It will also go on to detail three periods of nomad settlement in Saudi Arabia, which are a reflection of the previously studied history of nomad sedentarization (chapter 2), and the agricultural sector (chapter 4).

The second section of this chapter will deal with the data of the interviews relating to the settlement patterns. The date of settlement, along with other variables - like past experience of pastoralism, non-rural work experience, and incentives for settlement - will be examined thoroughly in the light of the previously outlined settlement periods. The final sections of this chapter will give details of the forms of agriculture previously practised by the bedouin farmers, as well as emerging forms of pastoralist activities in the region.

Section I

1. Sedentarism as a Variable

Sedentarism appears at first glance simple to measure, because it has been customarily looked at as meaning reduced mobility and increased residential stability. However, Nina Swidler highlights two areas of

weakness in such a view point: (1)

1. To link analytically the idea of sedentarism mainly with residential stability stems from the habitual identification of pastoral nomadism with the secondary attribute of mobility, rather than that of the primary attribute of pastoralism. Nomads in fact move to perpetuate and facilitate their economic capital, i.e. livestock. The adoption of such a viewpoint in the conceptualization of nomadic pastoralism reduces full comprehension of the variety of modes of integration that nomads adopt in order to develop their productive forces in a changing environment.

2. Another area of weakness highlighted by Swidler relates to the common practice of equating the process of sedentarisation with forced sedenterization; which is often practised by centralised governments to reduce the nomadic groups' mobility, and therefore increase control over them. Forced sedentarization has been met by resistance in many parts of the world and has caught the attention of writers, both academic and literary. Focussing on this served was to draw attention away from the variety of ways in which some nomadic groups actually choose to reduce their mobility, for various reasons, while continuing with the pastoral activities in some form or another (2).

The various options practised by nomadic groups, in a process of sedentarism, do not only imply an element of free choice. They may also imply a situation of conflict between the continued existence of pastoral nomadism in its original form, and the policies practised by a centralised government in the wider structures that include sedentarized nomadic groups. These policies may range from laws governing pastoral land use to policies of education and health; or more importantly, general developmental economic policies that do not take into account animal wealth or nomadic groups.

Changes, moreover, within the wider structure of the society may induce nomads to curtail their migration pattern in order to enjoy certain advantages generated from a source of national wealth, the introduction of modern technology, and improved productivity.

The point being made here is that sedentarism, in the literal sense, does not signify the completion of the integration of nomads in a wider society. It is merely an important symptom of the sedentarization process. Sedentarism, therefore, must be measured with an eye on the elements that make up the nomadic economic systems. It is only then that a more comprehensive picture of the degree of sedentarism can be drawn.

The adoption of such a point of view does not mean a pre-conceived judgement of the study's population. That remains to be seen from the data available, and must begin by looking at factors affecting the Saudi nomads' sedentarization during the various periods of their settlement in the national setting.

2. The Periods of Settlement

From the study of nomads and the sedentarization process in Saudi Arabia (see chapter 2), it is possible to conceive of the process as occurring in three stages. These are:

1. The early stage of nomad settlement (1910 to the early 1930s). This stage was dominated by the Ikhwan movement, which initiated a hitherto unknown push for settlement among the nomadic tribes of Saudi Arabia. The main characteristic of this stage is sedentarization through ideological intervention.
2. The intermediate stage of nomadic settlement (1940-1960s). This stage was dominated by a process of sedentarization motivated by two elements:
 - A. The productive instability of pastoral nomadism, keenly felt by the Saudi bedouins through the following:
 1. Ecological circumstances like droughts, and loss of good grazing pastures.
 2. Juridical and policy inspired interventions into the dynamics of pastoral nomadism, through land reforms.
 - B. The opening up of other opportunities for wage employment generated by the setting up of the

modern state public sector (military institutions, the administrative organisations), and the oil industry.

The first element disposed the Saudi bedouin toward settlement, and the second facilitated a degree of integration with the national setting.

3. The recent stage of nomad settlement (1970s up to the present). This period is characterised by a voluntary self initiated push for a more settled state by large numbers of the nomads of Saudi Arabia. This push was motivated by new economic opportunities opening in the rural economy, which were instigated by the state's agricultural development programme (especially after the second development plan of 1975). It is also marked by the heightened effectiveness of the governmental institutions concerned with various aspects of the agricultural sector (the Ministry of Agriculture and the Saudi Arabian Agricultural Bank), which began to receive substantial funds after the 1973/74 oil price increase. Settled agricultural activities during this period were markedly different than in previous periods, in terms of profitability and patterns of production.

The process of change is necessarily continuous, which means that there would be some overlapping of factors between those three stages of the sedentarization process. For example, wage labour as a source of

income for individual nomads began since the start of the oil exploration in the 1930s, and increased in importance after the state institutions began to grow in the 1950s and the 1960s. At present, it remains as an important source of income for settled and unsettled bedouins; but it is also accompanied by more important income generating activities like agricultural production and/or commercial activities.

The ideological element involved in the first period of settlement, moreover, continues to be effective nationally at present; and it is clearly exhibited in the religious orientation of the Saudi state and population . Furthermore, the factors most effective in the recent period of nomad settlement had their origin in earlier periods. For instance, land distribution (through the PLDO) began after 1968, and it became increasingly more important after the agricultural development programme of the 1970s.

The above demarcation of settlement periods reflects only the most important factors influencing the process of nomad sedentarisation at different stages of the development of the Saudi society. It also reflects historically important periods, which began with the establishment of the nation state and continues to the boom of oil revenues experienced in the 1970s.

3) Factors Affecting Nomad Sedentarisation in the Early Stage

The earliest period of sedentarisation on a large scale in Saudi Arabia was induced by the teachings of the Ikhwan movements, which began in 1910 and declined in the 1930s. The movement was headed by King Abdul-Aziz, who was the paramount political power in the central region

of Najd at the time ⁽³⁾. The struggle for the spread of the Wahabi ideology was the means by which political power was achieved over the nomadic tribes; and it eventually led to Ibn Saud's complete control over sedentary villages and more urban regions like Al-Hijaz and Asir ⁽⁴⁾.

The Wahabi preachers stressed to the bedouins that heaven's gates were open to those who espoused the return to fundamental Islam, and abandoned the the unruly life of nomadism. The Islamic zeal of the new converts persuaded them to accept Ibn Saud's offer to settle in agricultural Hujars, and replace their tribal loyalty by Islamic brotherhood.⁽⁵⁾ The nomads who espoused the cause saw fit to forgo their nomadic life and their animals for their convictions and heavenly rewards. They were also encouraged by grants of land and subsidisation by Ibn Saud. These subsidies included food, ammunition and cash assistance.

By 1930, 200 Hujar existed in the Arabian Peninsula ⁽⁶⁾. Tribal affiliation however proved to be too strong , and settlement was generally based on tribal membership. There were two factors encouraging this tendency: a) offers of settlement were given to important tribal sheiks, who then urged the members of their group to undergo settlement; and b) the traditional intense rivalry between tribal groups was carried over to rivalry over land grants and assistance. The tribal leaders of sub-groups, as well as paramount sheiks, were quick in seeking a place of settlement of their own.

Nomadic settlement in this period was marked, therefore, by a general withdrawal from the nomadic economy, by abandoning migratory movement and the exclusive dependence on animals. Substantial aspects of the

tribal social structure were, nonetheless, retained and practised.

4) Factors Affecting Nomad Sedentarization in the Intermediate Stage

This period of nomad sedenterization presents a completely different picture, in that it is mostly influenced by economic factors rather than motives of an ideological nature. The inducements and rewards for settlement, moreover, were not as clear cut as in the earlier stage. This made it necessary for any nomad or nomadic group to weigh their options and present circumstances very carefully before making any move toward sedentarism. Factors affecting the sedentarization process at this stage were more complicated; and included the following:

A) Factors Affecting the Dynamic of Pastoral Nomadism:

1. Raiding by nomadic tribes on sedentary cultivators, other nomadic groups, and caravan routes had been previously an important economic resource for nomadic groups facing economic difficulties due to droughts or animal diseases. The practise of raiding was completely prohibited in the 1920s ⁽⁷⁾, and looting was only allowed in the Ikwhan battles. For some time, however, the political leadership (personified by Ibn Saud) was unable to enforce this law, especially in isolated areas. As the central government gained in power, and its armed forces were being strengthened by bedouin recruits from all over the regions of Saudi Arabia, it became possible for raiding to be completely stopped. Nomads facing ecological difficulties with reduced numbers of animals thus had no options but to rely on state help, or to seek other means of economic livelihood.

2. The land reforms which began in 1925 and culminated in 1968 had profound effect on the dynamic of the pastoral nomadic structure (discussed more fully in chapter 4). The 1925 law abolished the dirah system, which gave tribal groups exclusive utilization and control of certain pastures. The system was based on complex inter-tribal agreements and alliances. The state, through the 1925 laws, became effectively the controller and regulator of all tribal pastures. Moreover, it decreed them open to all individuals according to the Islamic principles.

The law did not make any difference in the beginning on how nomads utilized pastures. They continued to move in the customary fashion, and no alteration was immediately apparent in the model of nomadic life. Trespassing in other tribes' territories, moreover, was a common practice even before this law, and had been possible under precise inter-tribal agreements. ⁽⁸⁾ In the long run, however, the 1925 law had important consequences, especially after the introduction of motorised transport.

Trucks and water tanks made it possible for nomads to exploit pastures and water resources that they had not previously been able to utilise. This led to greater freedom of movement of tribal nomadic units, and therefore greater utilization of good pastures as opposed to poorer ones. This eventually led to overgrazing and sometimes total destruction of some pastoral resources. ⁽⁹⁾

Another side-effect of the 1925 law was that tribal groups lost interest in protecting their own dirahs and preventing them from being overused. There was also considerable difficulty in enforcing the Hemma system, by which a good pasture would be prohibited to all tribal

groups for a few years to allow it to regenerate.

When free access began to be practised, the effect on animal wealth was initially beneficial, and the number of animals increased with the greater opportunity for good grazing. Soon, however, those same animals began to deplete good pastures and the reverse began to take place.

The 1925 law was a direct intervention in the nomadic sector, which sought to promote access to the resources in a manner which contrasted with the traditional rights of utilization of resources. It also undermined the tribe's political and economic independence and authority, and replaced it with dependence on the state and its authority. The tribes, therefore, lost one of their principal functions, that of protection and management of the community's interest as regards access to resources.

In 1968, another land reform (the Public Land Distribution Ordinance or PLDO) was further instrumental in completely altering the traditional system of access to the resources. It reinforced the 1925 law and went further to replace collective community ownership with private individual ownership. Theoretically the law gave every Saudi citizen the right to apply to the competent authorities for a piece of land in any region of the Kingdom, but in reality land distribution assumed a pattern based on tribal membership and community right of access⁽¹⁰⁾. Tribal sheiks, moreover, were heavily involved and instrumental in the distribution process.

Land distribution based on tribal and community membership has tended to have a triple effect:

- A) It derives its legitimacy from the traditional system and therefore tends to strengthen some aspects of the tribal social systems, notably that of exclusivity.
- B) It encourages social differentiation between groups and within groups; because it depends on the access and the relationship to the local Amir, and his own relationship to the state's authority.
- C) It replaces the traditional collective right of access to land with the right to private property among the nomadic sector of the population. This in turn opens the door to the new, previously unexperienced, commercialisation of resources.

The land distribution policies, then, altered the relationship between the nomads and their spacial environment. The old patterns had encouraged and made possible a dependence on livestock as an economic resource; while the new patterns did not take into account animal wealth, and encouraged alternative means of livelihood - namely cultivation and a sedentary way of life.

3. Perhaps the most effective factor encouraging nomad sedentarization has been the ecological difficulties affecting the equilibrium of the nomadic pastoral economy. Periods of drought all over the country during the 1950s and the 1960s affected profoundly the numbers of livestock and reduced nomadic productivity. This, coupled with the degradation of pastures, left many nomadic groups on the brink of starvation. (11)

These developments prompted the government in the late 1950s and the

1960s to take action on behalf of those groups through agricultural projects. These projects were aimed at settling the nomads, and also at introducing improved agricultural methods to the worst affected regions. The first project was Wadi Sirhan agricultural project (1958) in the Northern region, which was targeted at the Shararat bedouins.

The second project was the Haradh Agricultural Scheme (1963) in the Eastern region, whose target population was the Al-Murrah tribe. Neither of these two projects was very successful in its goal to incorporate the targeted bedouins into the planned agricultural schemes. This was due to a series of management errors, which essentially did not take account of the bedouins' social characteristics, nor of their own desires and opinions (this was discussed more fully in chapter 2).

These agricultural schemes, however, were the first attempts by the government to introduce modern agricultural machinery and methods into the rural sector. They became subsequently a model for traditional farmers and spontaneously settling nomadic groups.

The severe hardship encountered due to droughts in this period, and the inability of the government to cover the vast areas affected by them, left the greater part of nomadic groups with no option but to turn to other economic resources. This meant in most cases a partial or total abandonment of the pastoral economy.

B) Factors Affecting the National Economy

In addition to the above factors affecting the dynamics of nomadic pastoral production, there were additional factors originating in the

national setting, which greatly affected the sedentarization process in this period. These factors included the following:

- 1) The face of the national economy was changing slowly but surely since the discovery of oil in 1938 in quantities deemed commercially exploitable. After the second World War, revenues rose from \$5 million in 1950 to nearly \$1 billion in 1968. These revenues allowed the Saudi Government to establish and expand its public institutions, as well as introduce educational and health services. The setting up of ministries, military institutions and the nucleus of the service sector opened up opportunities of employment previously unavailable to the majority of the population. The nomadic groups were, moreover, experiencing substantial difficulties due to the factors outlined above, which greatly disposed them towards alternative modes of livelihood.

The modern sector was virtually restricted to the urban surrounds of Jeddah, Riyadh, Dammam and Dhahran (the site of the oil industry). It consisted of the expanding government bureaucracy, small scale construction activities, and a growing number of trading concerns.⁽¹²⁾ Despite the limited nature of the modern sector, it offered avenues for salaried work for a substantial number of bedouins. These were mostly in the military institutions, like the National Guard, the Royal Guard and as personal guards for members of the Royal families. Low-skill employment like driving, construction work and labouring jobs in the oil industry were also eagerly taken up by members of the tribal groups.

Incomes derived by the heads, and male members of bedouin families working in the urban sector, maintained the rurally based family units. This process diversified the economic basis of nomadic pastoral units from one based exclusively on subsistence to one combining wage labour with the traditional subsistence economy. This development was for many nomadic groups the first step towards a more settled state.

- 2) The decline and stagnation of pastoral nomadism was matched by a stagnation in the agricultural sector of the economy (see chapter 4), which prevented major increases in productivity and maintained the vast majority of the rural population at a subsistence level.

The rural economy had to await the early 1970s, and the economic boom of national wealth, before any major efforts for its development could be undertaken. The aridity of Saudi Arabia was, moreover, hardly conducive to spontaneous growth of a viable agricultural economy. Even the two government-instigated agricultural projects had very little impact on the overall rural sector. Farming techniques were largely traditional (see chapter 4), and the rural infrastructure was very poor. The marketing of agricultural products was, moreover, traditional in method and limited in scope.

The limited nature of agricultural activities in this period, in terms of productivity and profitability, meant that nomads settling in the countryside were not experiencing a very great level of change. They tended to combine subsistence farming with subsistence pastoral activities (in the shape of

semi-nomadic or short range nomadism). Their cash incomes were mainly derived from wage labour in the military and low-skill work, and also from cash grants from the state.

Settlement in this period meant a respite from the economic difficulties of pastoralism, a greater opportunity to take advantage of health and education services, and a chance to enter into wage labour. This period, however, contains the seeds for the more marked developments in the 1970s because of the land reforms of 1968 (PLDO) which paved the way for the land distribution of the 1970s, and also because of the establishment of the Saudi Arabian Agricultural Bank (1969), which became in the 1970s and 1980s the major agent for the development of the agricultural sector.

5) Factors Affecting Nomad Sedentarization in the Latest Stage

This stage is characterised by a burst of wealth, that was generated from the 1973/74 oil price increase. National income rose from \$1,150 billion in 1970 to \$29 billion in 1980. Prior to 1970, developments were mainly concentrated on communications, infrastructure, social services, and the development of government organisations. Rapid development before this period was impossible because of the relatively modest oil income. By 1975, and the second development plan, the picture was vastly changed. Capital by this stage would be released to a rural based development strategy, aimed at increasing agricultural production, and improving the quality of living for the rural population. Qualitative changes were taking place in the rural economies, and in the sedentarization process of this period. Transformation, moreover, was more marked, and affected a large

percentage of the rural people. Some of the elements affecting this period were the following:

- 1) Major resources of underground water were discovered in consequence of extensive exploration by the Ministry of Agriculture and Water in the 1960's. These discoveries improved the general expectation of the policy makers toward the likelihood of the success of any strategy aiming to improve agricultural sector. It also increased the expectations among the rural based populations.

Modern water systems were being rapidly, and more extensively, introduced into the areas of irrigated agriculture. These were based on deeply dug wells, and modern pumps. This process was heightened and supported by the activities of the agricultural bank which offered the farmers extensive credit and subsidisation facilities.

- 2) Land utilization had been, at the advent of this period, largely transformed in principle from its mixed traditional forms, i.e. collective pastoral utilization of land and small traditional agricultural landholdings, to a form that conformed to the land policies of the government. The main characteristics of the latter are a commitment to private ownership, and a tendency to promote differing systems of land ownership, one designed for small cultivators and the other designed to encourage large commercial agriculture (see chapter 4). The PLDO was by the 1970s able to operate in the major agricultural regions of the kingdom.⁽¹³⁾

- 3) The Agricultural Bank (1969), which was operating in the early 1970s on a restricted level, received in the latter years of the 1970s substantial funds. This enabled it to finance a much improved service to an increasing number of the rural population. The Bank's credit covered water systems, land preparation and modern farm machinery. All loans were given to farmers under very generous terms; and the greater number of items needed for agricultural production were also subsidised by the government.

- 4) 1979 marks a major new development, which generated a substantial increase of agricultural activities. These were based on wheat cultivation, which benefitted from a price support that guaranteed the producers substantial profits (see chapter 4). This marked a significant departure for agricultural producers, and encouraged more of the rural and urban population to enter the sector.

- 5) The increased salaries, grants and profitability of commercial ventures in the rural and urban economies during this period, generated wealth and well-being on the national level. This made it possible (in most sectors of the economy) to recruit foreign labour - skilled and unskilled - to cover some of the gaps left by the lack of skill and training, and/or the lack of inclination for manual labour. The process was encouraged by the relaxed governmental policies toward this tendency.

The above factors had a far-reaching effect on the process of sedentarization of nomadic groups in Saudi Arabia. Firstly, there was a greatly increased level of disposition toward settlement, because the

rural standards of living had dramatically improved.

Secondly, there were qualitative changes in the sedentarization process. The first period of sedentarization had been a move from one subsistence economy to another, while the second period offered a diversification of the economic structure of pastoralism (by adding cash from wage labour to subsistence agriculture and/or pastoralism). By contrast, the latest period saw a move to commercial farming and markedly different relations of production, by way of using modern agricultural methods and machinery; and the growing ability and need to employ wage labour in the settled state.

Thirdly, the process of settlement, which had been influenced in the previous periods (1940s up to the 1960s) by the job opportunities and the general development in the urban and public sector, was now also influenced by the increased levels of incomes in the agricultural sector. This, undoubtedly, encouraged a process of integration markedly different than that of previous periods - namely one based on a positive dynamic originating within the rural sector itself.

II Patterns of Settlement in Sajir

This section will attempt a comprehensive look at the patterns of settlement among the interviewed persons. It will take the date of settlement as the main variable in the analysis of the data derived from the interviews. This section, by virtue of being the first empirical look at the target population, will also include such basic information as the age, educational level, and work experience of the bedouin farmers interviewed. Such variables, however, figure to some extent in the subsequent analysis of the patterns of settlement.

It will also take its guidance, in the ordering of the settlement variables, from the previously outlined stages of nomad sedentarization in Saudi Arabia. This will serve to establish whether or not such demarcation is actually useful in understanding this case of bedouin sedentarization, and what differences (if any) exist between bedouins who had settled at different stages.

1 Lineage Affiliation

As was seen earlier (chapter 3) the overwhelming majority of the people of Sajir come from Al-Hanatish lineage (of Al-Talha Clan) of the Utaibah tribe. This was also reflected in the sample of this study (see table 5.1). Those who were not Hanatish were mostly from Al-Talha Clan (seven in number), while three were from lineages belonging the Al-Rugah sub-tribe. No bedouins from other tribes, or from the other large sub-tribe of Utaibah (Al-Bargah), were encountered in the sample.

The process of settlement, and subsequent land distribution to the tribal members of Al-Hanatish, follows closely the pattern of the Iqta system (discussed in chapter 4). Permission to settle the site was initially granted to the Sheik of Al-Hanatish in 1919 - the approximate date for the establishment of Sajir (see chapter 3). Subsequently, the Amir Ibn-Muhaiya, the father of the present Amir, was given a land title to the whole of the lands traditionally associated with the settlement. This deed empowered him to distribute the land among his people for the purpose of settlement.

What this meant in real terms was that Sajir's lands were outside the powers of the Public Land Distribution Ordinance (1968), and that landholdings could be easily transferred to the Hanatish settlers (by

TABLE 5.1LINEAGE AFFILIATION

<u>Lineage</u>	<u>Number</u>
Al-Hanatish	28
) Al-Talha Clan	7
Other Lineages)	
) Al-Rugah Sub-Tribe	3
	—
TOTAL	38
	==

TABLE 5.2AGES OF THE INTERVIEWED

<u>AGE CATEGORY</u>	<u>Number</u>
25-30	6
31-40	6
41-50	13
Over 50	10
Do Not Know	3
	—
TOTAL	38
	==

the same process of Iqta) in the Islamic courts, and by written documents of the Amir. This accounts for the exclusivity of the settlement, as well as the existing exceptions to the general rule. The Amir's decision to grant land to settling households outside Al-Hantish lineages is taken as a sign of his generosity and flexibility by people from other bedouin settlements and villages in the region (discussed more fully in chapter 6).

2 Ages of those Interviewed

The ages of those interviewed ranged from 25 to 90 years. The majority of the bedouin farmers interviewed were over 40 years old (see table 5.2). Other younger age categories were also represented in the sample. The dominance of the older age category is due to the tendency to interview heads of the households during the sampling process, unless absent from the farm. This is because households are predominantly extended family structures, and a sampling process that does not seek out heads of households would risk repetition of already obtained data from the same household. Interviewing the head of the households also extends the relevant data over a larger number of the settled bedouins. The age variable will be discussed later in the light of subsequent information.

3 Level of Education

The level of education was markedly low for the majority of the interviewed bedouins (see table 5.3). Twenty nine of the interviewed had six years or under of formal education, or none at all. Approximately 26% of the sample were completely illiterate, while more than 50% were either barely literate, or of a very low educational

TABLE 5.3LEVEL OF EDUCATION

<u>Category</u>	<u>Number</u>
Illiterate (1)	10
Literate (2)	7
Six Years or Under	12
7-12 Years	8
Over 12	1
	—
TOTAL	38
	==

(1) Does not read or write, or reads a little.

(2) Reads and writes, no formal education.

TABLE 5.4PERSONAL EXPERIENCE OF PASTORALISM

Yes	:	29
No	:	9
		—
TOTAL		38
		==

level. Only one had formal education exceeding twelve years (a high school diploma). The level of education will also be examined along with other variables in the subsequent discussion.

4 The Experience of Pastoralism

Twenty nine of the interviewed bedouins had direct personal experience of pastoral activities. These included long-distance nomadism, semi-nomadic and herding activities. The nine individuals who had no experience of pastoralism will be accounted for in the coming discussion of the date of settlement, and its relationship to other variables like age and previous work experience (see table 5.4).

5. Previous Occupations and the Non-Agricultural Work Experience

The majority of the persons interviewed were previously engaged in pastoral activities, or non-rural work requiring low skills and/or a low level of educational attainment like driving, trading and also employment in the National Guard (see table 5.5). Pastoralism was the previous occupation for more than half of the bedouins interviewed, while low-skill work and the military accounted for eight of the cases in the sample. Only five were earning their living previously by employment in the civil service. Three of those interviewed, moreover, had no previous employment other than the present; but they were young men aged 27, 27 and 28. This element will be clarified further below.

The bedouins' statement of their occupations, however, did not exhaust their non-rural work experience. In fact all but one of those who said that their previous occupation was pastoralism, also had other non-pastoral work experience (see table 5.6). The majority of this

TABLE 5.5PREVIOUS OCCUPATIONS AMONG THE INTERVIEWED

Pastoralism	:	22
Military Work	:	4
Civil Employment	:	5
Unskilled Work (Driving, Construction and Trading)	:	4
No previous occupation (Young Men)	:	3
		<u>—</u>
	TOTAL	<u>38</u>

TABLE 5.6

PREVIOUS OCCUPATION AND PAST WORK EXPERIENCE
AMONG THE INTERVIEWED

	<u>PREVIOUS OCCUPATION</u>		
	<u>PASTORALISM</u>	<u>OTHER</u>	<u>TOTAL</u>
<u>Work Experience</u>			
1) Military	13	2	15
2) Military and Unskilled Work	1	4	5
3) Unskilled Work (Driving, Construction)	3	2	5
4) Religious	2	0	2
5) Civil Service and/or Commerce	1	5	6
6) Military and Teaching	1	0	1
7) None	1	3	4
			<u>—</u>
	TOTAL	22	16
			<u>38</u>

work experience, however, was in military employment, unskilled work or religious employment (as Imams of Mosques).

Only two of the twenty two pastoralists were also engaged during a period of their life in civil employment or teaching. Military work and unskilled work experience also figured highly among those who had alternative employment, but they were more likely to be involved in civil employment than the previous group. This factor will also be shown clearly in individual cases later in the next section.

6. Date of Settlement

The data were organised in such a way as to reflect the periods of nomad settlement stated in Section I. The majority of the interviewed bedouins in Sajir were found to have settled during the intermediate stage of nomadic sedentarization (see table 5.7), especially in the 1960s.

The sample might have reflected a larger number of the early settlers if no effort was made to include more of the recent settlers (see chapter 3). The settlers of the 1960s and 1970s and 1980s were mostly living in hamlets around Sajir, which were organised on a minimal lineage or lineage basis. The date of settlement, moreover, as stated by the interviewed bedouin reflected a subjective judgement and did not always follow the same criterion, especially among the intermediate settlers.

For example some individuals may mark their settlement by the time they had broken from the family unit, and taken salaried jobs. Other would mark it by the time the whole group had taken up residence in Sajir.

TABLE 5.7

DIVISION AMONG THE PERSONS INTERVIEWED
ACCORDING TO PERIOD AND TIME OF SETTLEMENT

PERIOD OF SETTLEMENT	TIME OF SETTLEMENT	NUMBER OF SETTLERS
The early period of settlement	Before 1940	10
	) In the 1940s	2
The intermediate period of settlement)	
	) In the 1950s	5
)	
	) In the 1960s	14
	) In the 1970s	6
The most recent period of settlement)	
	) In the 1980s	1
		TOTAL 38

Two individuals marked it, moreover, by the cessation of heavy semi-nomadic activity, which involved the family unit in annual seasonal outings to the desert in search of good pastures.

On the whole, however, residence was the main criterion, for the interviewed bedouins, especially among the early and recent settlers. The intermediate settlers were the most likely to differ in their criterion for what signifies settlement. This analysis, nonetheless, will use the stated date of settlement, and will not take it to mean the cessation of semi-nomadic activities as will be shown later.

The 1960s was a period when a large number of the bedouins in Sajir were induced to turn away from primary dependence on livestock and settle. The individual settling in this period represents an extended family structures, which may include fathers, brothers, cousins, nephews and their families. The later settlers (1970 and 1980) represent even larger units, which included in three of the seven cases a whole lineage, and a minimal lineage in another case.

7) The Date of Settlement and Other Variables

In an effort to find out if any differences exist between the individuals settling at various stages, the data was organised in tables 5.8, 5.9, 5.10 for every individual case in the sample. The organisation of the three tables, moreover, followed the already set periods of settlement, as well as a chronological listing according to the year of settlement. This is to see if any significant differences exist between the settlers in any one group.

Careful examination of the cases (outlined in the tables 5.8, 5.9,

TABLE 5.8

YEAR OF SETTLEMENT AND OTHER VARIABLES AMONG THE EARLY SETTLERS

	DATE OF SETTLEMENT	AGE	EDUCATION	PREVIOUS OCCP'N	PASTORALISM EXPERIENCED	NON-PASTORAL WORK (EXCLUDING PRESENT ONES)	URBAN RESIDENCE
1-	1903 (1)	55	9 Years	CGE	X(2)	CW	X
2-	1903 (1)	45	12 Years	CGE	X(2)	BCW	Yes
3-	1919	56	6 Years	LT	SN	M	Yes
4-	1919	90	I	P	N	M(M)	Yes
5-	1919	42	L	U(D, PG)	SN	U	X
6-	1919	50	L	U(D)	X(3)	M, U	Yes
7-	1919	40	12 Years	CGE	X(3)	CW	Yes
8-	1919	54	6 Years	CGE	X(3)	CW	Yes
9-	1919	47	L	P	SN	M	Yes
10-	1919	45	9 Years	CGE	X(3)	CW	Yes

- (1) Families settled in Meccah at this date, but came to Sajir in 1919.
X(2) Their families never practised pastoralism in Sajir.
X(3) These four individuals said that they had not experienced semi-pastoralism in a major way. They were, however, required as young boys to take sheep flocks out for grazing.
- L Literate
I Illiterate
CGE Civil Government Employee
LT Livestock Trader
U(D, PG) Unskilled (Driver, Personal Guard)
U(D) Unskilled (Driver)
P Pastoralist
N Nomadic
SN Semi Nomadic
CW Civil Work
BCW Business and Civil Work
M Military Experience
U Unskilled
M (M) Military (Mojahid)
X None

TABLE 5.9

YEAR OF SETTLEMENT AND OTHER VARIABLES AMONG THE INTERMEDIATE SETTLERS

	DATE OF SETTLEMENT	AGE	EDUCATION	PREVIOUS OCCP'N	PASTORALISM EXPERIENCED	NON-PASTORAL WORK EXPERIENCE (EXCLUDING PRESENT ONES)	URBAN RESIDENCE
1-	1948	55	6	P	SN	M	Yes
2-	1948	47	L	ME	SN	M	X
3-	1950	50	I	P	SN	RW	X
4-	1952	DK (1)	6	P	N	M, U	Yes
5-	1952	50	L	P	SN	M	Yes
6-	1953	57	I	P	SN	C	Yes
7-	1956	28	6	ME	SN	M, U	Yes
8-	1960	27	9	X	X	X	X
9-	1960	25	5	D	X	M, U	X
10-	1961	60	BA in RS (2)	P	SN	M, T	Y
11-	1963	54	9	P	N	M	X
12-	1964	42	I	P	SN	U	Yes
13-	1965	27	12	X	SN	N	N
14-	1965	45	5	P	N	U	X
15-	1965	50	I	P	SN	M	X
16-	1966	52	L	P	N	M	X
17-	1966	32	6	ME	SN	M, U	Yes
18-	1967	28	12	X	X	X	Yes
19-	1967	35	6	P	SN	M	N
20-	1968	35	I	P	N	U	X
21-	1969	DK	I	P	SN	M	X

(1) DK stands for - I do not know

(2) RS stands for Religious Studies

L	-	Literate
I	-	Illiterate
SN	-	Semi-nomadic
N	-	Nomadic
P	-	Pastoralist
ME	-	Military Employment
M	-	Military Experience
U	-	Unskilled
C	-	Commerce
D	-	Driver
X	-	None

TABLE 5.10
YEAR OF SETTLEMENT AND OTHER VARIABLES AMONG THE RECENT SETTLERS

	DATE OF SETTLEMENT	AGE	EDUCATION	PREVIOUS OCCP'N	PASTORALISM EXPERIENCED	NON-RURAL WORK EXPERIENCE (EXCLUDING PRESENT ONES)	URBAN RESIDENCE
1-	1970	DK	I	P	SN	U	Yes
2-	1970	47	L	P	SDN	M	Yes
3-	1971	35	6	ME	SDN	M	X
4-	1977	49	1	P	SDN	M	Yes
5-	1978	38	5	P	SN	M	X
6-	1978	56	6	P	N	R	X
7-	1980	30	I	P	SDN	X	X

L	-	Literate
I	-	Illiterate
P	-	Pastoralist
ME	-	Military Employment
N	-	Nomadic
SN	-	Semi-Nomadic
SDN	-	Short-Distance Nomadic
M	-	Military Experience
U	-	Unskilled
R	-	Religious
DK	-	Don't Know
X	-	None

5.10), both individually and as groups showed the following tendencies:

1. There is a definite relationship between the recency of settlement and the educational level of each group. Four cases in the early period of settlement had a formal education of 9 or 12 years (40 percent). The second period had five cases of at least 9 years education (approximately 24 percent) and six cases of illiteracy (approximately 28 percent). The recent settlers, on the other hand, had no cases of an education level over 6 years in school and three cases of illiteracy (approximately 43).

Younger men who settled more recently (1970s - 1980s), moreover, were on the whole less likely to have had a formal education than men much older in the other and earlier periods of settlement. This was not wholly surprising because pastoralists on the move do not have educational facilities; except for literacy classes in some of the summer camp sites.

2. The early settlers in Sajir were not only more educated, but they also accounted for all the individuals whose previous occupations were in civil employment. Previous occupations among this group were mostly outside pastoral activities. Only two individuals said that they were pastoralists before becoming farmers, one of whom was a 90 year old original founder of Sajir.

Fourteen of the intermediate settlers said that pastoralism was their previous occupation (67 percent of the group), while six of the recent settlers (86 percent) were pastoralists

before turning to their current livelihood. The three young men who did not have any previous occupation are shown in table 5.9 as spending 9 to 12 years in school.

3. The early period of settlement accounted for six of the nine cases who had no personal experience of pastoralism. Four of these individuals had an educational level of 9 or 12 years of school, and all six had non rural work experience, which involved in five cases a period of residence in urban centres (see table 5.8).

A contrasting picture is drawn by table 5.10 of the recent settlers interviewed. Almost all of the persons of this group are of very low educational level, if not illiterate. They also come from a pastoralist background, with very little experience outside the rural sector; except for the membership in the National Guard. Moreover, they tended not to have a period of residence in an urban centre.

4. The intermediate group of settlers presents a more complex picture. As was seen earlier, they stand in the middle between the two other groups in terms of education and experience of pastoralism. Other tendencies exist within these group, which are the following:

A - Age and the educational level of the individuals in this group have an inverse relationship (see table 5.11). Six of the eight men under 40 years old had an education of six years or over; while eight of the eleven men over 40 years old had an education of less than six years.

TABLE 5.11AGE AND EDUCATION AMONG THE INTERMEDIATE GROUP OF SETTLERS

AGE CATEGORY(1)	EDUCATION LEVEL		TOTAL
	UNDER 6 YEARS	6 OR OVER	
Under 40 Years	2	6	8
Over 40 Years	8	3	11
Do Not Know	1	1	2
Total	11	10	21

(1) None of the men in this period of settlement were aged 40.

B - Age also seemed to have a relationship to the type of work experienced by the men in this group (see table 5.12). Seven of the eleven in the older age category had been engaged in what may be termed as the traditional occupations of the bedouins in Saudi Arabia, i.e. military and religious work. On the other hand, younger men were more likely to have engaged in unskilled work and/or military employment. The tendency is strengthened when we consider the present occupation (outside farming) of the three young men who have had no previous work experience. Their work outside farming at the moment is commerce, civil employment and teaching. This is of course due to their higher educational level (9 and 12 years of schooling).

C - There was a marked difference between the settlers in the 1960s and settlers in earlier years in terms of urban residence. Ten of the fourteen settlers in the 1960s had no period of residence in urban centres; while five of the settlers between the 1940s and the 1950s (out of seven) have had a period of residence in urban centres. The former group (settlers in the 1960s) in fact tended to resemble the settlers of the recent period in this respect. This point will be discussed at a later stage of this chapter.

5. Another marked difference between the three periods of settlement was in the type of pastoralism experienced. Whereas members of the first group, in the majority of cases, did not have any personal experience of pastoralism, the second group were in the majority semi-nomadic. The third group, on the other hand, were engaged in four cases out of

TABLE 5.12AGE AND WORK EXPERIENCE AMONG THE INTERMEDIATE GROUP OF SETTLERS

WORK EXPERIENCE					
AGE	MILITARY AND RELIGIOUS	MILITARY AND/ OR UNSKILLED	COMMERCE OR TEACHING	NONE	TOTAL
Under 40	1	4	0	3	8
Over 40	7	2	2	0	11
Do Not Know	1	1	0	0	2
Total	9	7	2	3	21

the seven in short distance nomadism. This point will be discussed more fully in the following section.

8) Pastoralism and Associated Activities

The Utaibah tribe is characterised by recent literature as semi-nomadic (see Chapter 7). This is because it has been one of the major nomadic tribes to have espoused the Ikhwan cause, which induced many of its members to settle (partially or wholly) on designated sites during the Ikhwan years.

Since 1919, the Al-Hamatish lineage have found their settling niche in Sajir, which they considered their home; and in which part of their kin remained settled after the disintegration of the Ikhwan military force. Moreover, they came to Sajir (in groups or individually) whenever they felt a need for settled conditions (either as pastoralists during the summer months, or for permanent residence). The process of sedentarisation in Sajir, however, did not mean an immediate ceasing of all pastoral activities. Some of the children of the founding households, in fact, had experienced semi-pastoralism or some herding activities (see table 5.8); and the same is more true of households and groups settling in subsequent years (see table 5.9 and 5.10).

A Forms of Pastoralism Practised

As seen before (table 5.4), 29 of the interviewed bedouins had personal experience of pastoralism. The division among these persons according to the type of pastoralism experienced is as follows:

1 The majority (18 persons) were engaged in Semi-pastoral

activities.

- 2 Seven individuals were practising pure nomadic activities.
- 3 Four of the most recent settlers were involved in short-range pastoralism.

The above types of pastoral activities will be discussed more fully in chapter seven on animal wealth, because they relate more closely to herd composition. Suffice it to say here that semi-nomadic pastoralism relies on sheep or mixed herds (sheep, goat and a limited number of camels); and it also involves some farming activities. Semi-nomads, furthermore, live in settlements or shanty towns (around urban centres) for most of the year.

Short range pastoralism, on the other hand, is also classified as semi-nomadic (see chapter 7), but it involves restricted movement around a home base for most of the year. Herd composition in this category is also characterised as mixed. Pure nomadism relies heavily on camel herds and involves long distance migratory movement.

It must be emphasised at this point that the settled community of Sajir no longer practise the above patterns of livestock breeding, except in very few cases (discussed in chapter seven). This section only related to past practices, and is indicative of the process of sedentarization experienced by the Al-Hanatish lineage.

The semi-nomadic activities in Sajir had the following characteristics:

- 1 Mixed herds of sheep and camels in the majority of the

eighteen cases (although three said they had only herded sheep).

- 2 The periods spent away from the settlement were restricted to seasonal grazing of animals in nearby desert pastures (usually in Al-Nafaud desert) during winter months. These outings involved almost all of the members of the family, except the men who may be away for work in other regions of the country.

The type of habitat for most of the year depended on whether or not the family owned a built up mud house in Sajir. Those who did not, lived in tents around the settlement. Daily grazing was also practised by the women and younger members of the family.

- 3 Most of the men were also engaged in salaried work. These were mostly in the National Guard, which involved a period of absence from the settlement, and from their families. Other forms of low-skill wage labour were also taken up by some of the younger men.

- 4 All the semi-nomads in the sample were engaged in cultivation. It was, however, not dependent on irrigation among this group until the 1960s (discussed more fully below). Dry cultivation was mostly carried on by the older members of the family, but it involved very little labour until the harvesting period.

Short-range pastoralism among this bedouin community seemed to have evolved during the decades of the 1960s and the 1970s. Its spread was associated with the introduction of motorized transport and water

tanks. Short-range nomadism has the following characteristics:

- 1) Restricted movement of the households around a home-base (Sajir in this case), for most of the year. The summer months were spent in camps near the settlements, or in designated sites in the desert.
- 2) The animals owned by the short-distance pastoralists were also mixed herds of sheep and camels, which were grazed in desert pastures for most of the year.
- 3) The short-range pastoralists were tent-dwellers who had practised no cultivation in all of the four cases until the time of settlement.
- 4) Men of this group of pastoralists were also engaged in salaried work especially in the military institutions.

Seven of the individuals who had settled in Sajir came from a purely nomadic background, one of whom was the 90 year old original settler. The other six came from camel herding family units, who moved extensively throughout the year. That, however, had not prevented the interviewed men from taking up sedentarised work. Dry farming, moreover, was practised by four of the six cases during their nomadic livelihood.

B Forms of Cultivation

Most of the bedouins interviewed in Sajir were engaged in farming activities. This is particularly true of those who were early settlers, or who had a semi-nomadic pastoral background. The form of farming that they predominantly practised, in the past, is rain fed cultivation (baal). This irrigated form of cultivation began to spread among Al-Hanatish in the mid 1930s; and it remained the only form of cultivation until the 1960s, when modern water systems began to spread *in the region*.

The baal method of cultivation is highly unreliable, because the seeds are sown in anticipation of the rain in winter. The resulting crops (mainly wheat and barley) are dependent on the amount of rain water that they have received, which means that crops are either poor or non-existent in dry years. The bedouins interviewed in the majority of cases never adopted peasant farming methods (animal powered irrigation from surface wells). The exceptions were among the early settlers, who had reduced their pastoral activities more significantly than the semi-nomads of the sample.

In the mid 1960s, deeply dug wells, engines and pumps were introduced to the region. These innovations marked a turning point for the cultivation activities among this bedouin community. The new irrigation methods were highly attractive, in that they increased the water supply, decreased the amount of labour involved in water extraction, and extended cultivation in terms of area and harvest (due to the increased amounts of water).

The latter years of the 1960s were characterised by increased demand

for landholdings, due to the need for farming sites with deeply dug wells. Farming methods, however, remained traditional in so far as irrigation was through open canals (see chapter 4) and machinery was little used on the farm. Farming methods were only to change dramatically in the latter years of the 1970s and 1980s. Prior to this period, marketing of the produce was rarely practised by Sajir's bedouin community.

The introduction of the new and improved water systems and farming methods gradually encouraged the semi-nomadic group to rely less on their pastoral activities, and engage more in farming as a livelihood. It also encouraged more of the short range pastoralists and the nomadic households to seek permanent settlement in Sajir.

C. Pastoralism at Present

The majority of those interviewed in Sajir said that most of their kin were now settled in Sajir. Some, however, had cousins and elderly uncles still practising pastoralism in the surrounding region. Two persons among those interviewed had undergone settlement without their extended family (mother, father, sisters and married brothers), and had joined cousins in hamlets of Sajir. Al-Kamashmah lineage (in Hobabaih hamlet) were the most notable of this latter group. Approximately half of their minimal lineage were still short-range pastoralists in Al-Nafaud desert, adjoining Sajir's lands. All of the nine cases who had relatives in the desert came from the hamlets around Sajir, who are among the most recent settlers of the region.

There are marked changes affecting the activities and life style of the pastoralists at present. The comments of the nine individuals on these

changes are the following:

- 1 They use motorised transport to move the household and the animals from one place to another. They also use small pick up trucks to herd camels.
- 2 They use large motorised water tanks, which they fill from time to time from the farms of their relatives in Sajir.
- 3 Some own houses, which they do not use frequently. Some also share in the ownership of the farms of their relatives in Sajir.
- 4 Women no longer herd the livestock away from the tent, and salaried herders are sometimes employed.
- 5 The movement of the household is very restricted, and involves removing the animals from one pasture to another in a very limited spatial surrounding. Commercially obtained feeds and fodder, moreover, are used when they are needed.
- 6 Their lifestyle is more comfortable and some use machinery (other than cars) like electric generators, and televisions.

The above comments provide us with a striking picture of the current activities of pastoralism (in this case at least). Pastoralism seems to have evolved dramatically in the last two decades, due to the increased wealth of the bedouin groups, and the increased use of motorised transport and water tanks.

The reasons outlined by the relatives for the continuation of the pastoral activities of their kin is as follows.

- a) The lack of disposition by the elderly heads of the household toward permanent settlement, and their love of the desert.
- b) Their inability to acquire any land in Sajir through Iqta.
- c) The prices of livestock had increased greatly in recent years, and the pastoralists are reluctant to let go of their large herds of animals.

Despite listing the above reasons, those interviewed in Sajir always commented that it is only a matter of time before their pastoralist relatives settled. This is mainly because the younger members of the families are greatly disposed toward settlement; which they perceive to be of greater advantage to them, mainly because of the educational and modern facilities.

Only one short-range pastoralist family was encountered during the field work. They were camped near their relatives' settlement, and they had just acquired a landholding in 1984. This piece of land was managed by the eldest son of the family, who was permanently settled in the hamlet.

9) Incentives for Settlement

As seen before, this chapter outlined three periods of nomad settlement, with very distinct factors operating in them. This section looks at the incentives for settlement

as reported by the interviewed bedouins. It will also organise the data according to the already set time periods to see if any differences exist between the three periods, as regards the reasons behind the decision to settle.

Table 5.13 shows clearly that these were indeed differences in why the bedouins in Sajir chose settlement at different stages of time. All early settlers, as expected, said that they had settled for Jihad (Holy War), and to pursue the teaching of the Ikhwan movement. Even those two individuals whose families settled before 1919 said that their fathers had come to Sajir to participate in the spread of the religious movement. The 90 year old settler said that most of the families settling in Sajir in this period had sold or given up most of their livestock to better serve the Ikhwan cause, and follow the Wahabi teachings.

By contrast, the intermediate period (1940s to the 1960s) was characterised by a decline in the pastoral economy (due to droughts or reduced incomes), as well as an increase in job opportunities outside pastoralism. The reasons stated by the settlers of this period, in the majority of the cases, were in perfect accord with the above reasoning.

Fourteen of the twenty one persons settling in this period actually stated that their reason for settlement was either because of loss of animals through disease, or because their incomes had declined in the drought years. Two bedouins, on the other hand, stated that they had desired to farm and educate their children. Another four put their reasons for settlement as stemming from their desire for an improved livelihood and easier working conditions.

TABLE 5.13

INCENTIVES FOR SETTLEMENTPeriods of Settlement

I N C E N T I V E S F O R S E T T L E M E N T	INCENTIVE FOR SETTLEMENT	EARLY PERIOD	INTERMEDIATE PERIOD 1940 - 1969	RECENT PERIOD 1970 UP TO PRESENT	SUB TOTAL
		For Jihad (Holy War)	10	0	0	10
	Decline in the pastoral nomadic economy and/or animal loss	0	14	0	14
	Desire to be cultivators and/or to educate children	0	2	0	2
	For an improved and easier livelihood	0	4	2	6
	To own agricultural land	0	0	5	5
	Do Not Know	0	1	0	1
	Sub Total	10	21	7	38

Some of the statements offered (among the intermediate settlers) to explain why they had settled were the following:

"We were very poor, our livestock died and we had no other alternative".

"We wanted to settle for comfort; and to give an education to our children".

"Father wanted to farm, and become a *modern hathar (sedentary) person*".

"Pastoralism alone is a hardship, we wanted to farm as well as keep our animals".

A sedentary way of life, moreover, was not perceived to be an obstacle to the continued reliance on animal wealth. A degree of sedentarism, furthermore, allowed men to take up military work and other jobs while maintaining close contact with the less mobile households. Ownership of land was also becoming an important factor in the nomads' perception of what settlement could yield to their advantage. One settler said that they wanted an improved livelihood through settlement, and the chance to farm.

Then again, the settlers in the recent period (1970s up to the present) reflected in their stated reasons for settlement the factors most influential in this period. Five of the seven individuals said they had settled because they wanted to own agricultural land in Sajir. The spread of improved agricultural methods (in irrigation and cultivation), and the loans and subsidies provided for the farmers by SAAB and MOAW changed considerably what the bedouins sought from

settlement. Since the beginning of this period agricultural land grants were continuously being requested from the Amir of Sajir. The demand increased after 1970, especially from large minimal lineages with connections to the settlement of Sajir.

Many hamlets of Sajir sprang into existence during the 1970s, formed by the settling minimal sections of Al-Hanatish and other lineages from Al-Talha clan. Examples of these settlements are: Al-Hobabyah (1971), which is inhabited by Al-Karashmah minimal lineage; Al Tasrir hamlet (1970), inhabited by Al Ghadhabin (a section of Al Nawami lineage); and Al Rajhyah (1975), which is inhabited by a section of Al Hizman lineage.

Settlement in this period was motivated by a desire to engage in farming, which became highly attractive not only to the bedouins of Sajir, but also to bedouins and villagers in other communities in Asser. Many sedentary families, who had migrated previously to urban centres for work, returned during this period to their villages to establish modern farms on family plots or unoccupied land.

The numbers of settlers in this period in Sajir are larger than what might be suspected from the incidence of recent settlers in the sample. This is not because they represent hamlets, or minimal lineages; but also because many semi-nomadic groups who had settled partially in other areas, came to Sajir to seek agricultural land for permanent settlement. An example of this tendency are the Al Hizman from Al Rajhyah hamlet, who had initially started to settle in 1948 (see table 5.9, number 2). Their agricultural land, however, was acquired in 1975, and is approximately 40 kilometres away from Sajir.

10. Case Studies of Settlement

Perhaps the most effective means for the illustration of the patterns of settlement, and some other associated variables, is through presenting examples of the cases in the sample. The case studies were chosen because they serve as primary examples of the settlement patterns; or because the bedouin farmers were precise in their detailed answers.

Case 1 (Number 7 in table 5.8)

This man was born in 1945 to a family of early settlers in Sajir. During the early years of his life, his family was practising some semi-nomadic activities which took them sometimes on spring outings to the desert. Throughout the year, the family lived in a built up house in the settlement, and the young children had to take the sheep herds out for grazing.

Baal and date-palm cultivation were practised since 1930, and were the only form of cultivation until 1965 and the modern water systems (engines and pumps). In 1958, when he was 13 years old he was sent by his father to school. By 1967, he was able to take employment in the civil service in Riyadh, which he continued to hold for five years (continuing his education at night while working). In 1972 he transferred to Sajir's municipal authority and established a farm on his family's original land. He enlarged that land by a grant from the Amir, and by cultivating unowned lands surrounding it. He now owns the whole land jointly with his brothers, and has a third occupation as an Imam of a Mosque.

Case 2 (No 9 in table 5.8)

This man was born in 1938 to a family of early settlers, who were heavily engaged in pastoralism until 1960. Their semi-nomadic pastoralism depended on herds of sheep and camel, and took them annually to the desert during winter and spring.

They also practised baal and peasant agriculture until 1965. Since 1957, however, this man had been employed by the National Guard's regular forces, which involved periods of residence in the Eastern Region of Saudi Arabia.

In 1974 he resigned his post, and came back to Sajir to start farming on his family land, which he enlarged (like the previous case) through a land grant. He owns it jointly with his brother, and has no other employment.

Case 3 (No 1 in table 5.9)

Born in 1930, this man practised semi-nomadic pastoralism with his family around Sajir. When aged 18 (1948) he joined the National Guard, where he received an education equivalent to elementary schooling. His military rank rose considerably and he was stationed in many urban centres. In 1980, he bought a piece of land in Sajir, which he left in the care of a foreign manager. In 1981 he retired and came to Sajir to administer his farm. He now owns a commercial enterprise in Sajir.

Case 4 (No 4 in table 5.9)

This man was born to a camel herding nomadic family, who moved

extensively around the country. In 1952 their camels died and they came to Sajir to join their lineage. From 1956 to 1965 the family practised baal (rain fed cultivation) and owned a small date palm garden. Meanwhile he worked for a while as a labourer in Riydah and a railroad worker in the Eastern Region, and finally joined the National Guard. In 1969, he came back to Sajir and had been farming since then. He enlarged his family's land by a grant from the Amir.

Case 5 (No 19 in table 5.9)

This man's family had been among the Ikhwan settlers in Sajir. However, they returned to pastoralism and the desert after the Ikhwan defeat. Since that time they had lived as semi-nomads elsewhere in the country. In 1967 their animals died, and the elderly father died shortly afterwards. The whole family returned to Sajir then, where they were granted a small piece of land. The man interviewed joined the National Guard reserve forces, and started farming their land.

Case 6 (Number 3 in table 5.10)

Born in 1950 to a family of short range nomads, this man lived the first eighteen years of his life exclusively as a pastoralist. In 1968, however, he joined the National Guard, through which he received an elementary education. His family followed him wherever he was stationed in Al-Hijaz (outside urban centres), and maintained constant contact.

In 1971 he came to Sajir for permanent residence, and a piece of land was acquired through a grant. His elderly father refused to settle on the farm, and continued in pastoralism with the other members of the

family in the nearby deserts.

Case 7 (Number 7 on table 5.10)

He was born in 1955 to a short range sheep herding family, who began to use motorised transport, and water tanks in 1975. Their movements, however, were always restricted and they maintained contact with their lineage in Sajir (Al-Karashmah).

In the early years of the 1970s, they were offered a grant of land from the Amir (via their cousins in Sajir) which they refused.

In 1980, however, they camped permanently in Sajir's desert and applied for a land grant, which they received in 1982. The eldest brother of the interviewed bedouin settled in the Al-Hobabyah and started cultivating wheat in 1984. The rest of the family continues to live in their tent outside the settlement with their considerable livestock holdings. Their desert outings are restricted at the present time. This man received no education, but he is now employed as porter to a school in Sajir.

Conclusion

Section I of this chapter outlined three stages of the nomad settlement in Saudi Arabia, which are based on study of history of the sedentarization process (chapter 2) and also on study of the agricultural sector (chapter 4). The settlement patterns of the bedouins in Sajir were also examined in Section II, in an effort to find out whether or not these outlined periods are actually significant in this case. On the whole, the patterns of settlement in Sajir

conformed to the expectation derived from the outlined periods; but they also included certain other elements, which will be pointed out at a later stage of this section.

The settlement patterns in Sajir thus came in the following stages:

1. The early Hanatish settlers in Sajir were motivated by the teachings of the Ikhwan movement. They settled for Jihad and were actively engaged in the Ikhwan battles for the unification of the kingdom. Settlement for this group of bedouin meant an addition of subsistence farming to subsistence pastoralism.
2. The intermediate settlers (1940 to 1960s) were largely induced to settle because of the economic hardships they were facing as pastoralists, and by their need to engage in a cash economy through taking employment in the urban based labour markets, especially the National Guard. The bedouin economy in this period experienced a marked diversification of its economic base, but pastoralist and farming activities remained largely subsistence-based and traditional.
3. In the latest stage of settlement in Sajir, there was a great influx of Al-Hanatish and other related lineages to Sajir to take advantage of the new forms of agricultural production, which promised better working conditions (through the adoption of modern

machinery), a greater income and increased levels of assistance from the government. The ownership of some agricultural productive land was the primary concern for present Sajirans during this period of time. The influx did not only include those who were settling for the first time, but also the men who were working in other regions of the Kingdom. The settling nomads, moreover, were to experience a marked change to their life, because settlement meant an active and concentrated engagement in commercial farming.

Thorough examination of these three groups of settlers revealed significant differences between them as regard to education and modern sector experience. On the whole the early settlers, by virtue of being more sedentary, were better able to enrol in schools, and therefore engage in employment that exposed them to the expanding urban and modern sector. The group who had remained in a pastoralist economy till the beginning of the 1970s were the least likely to have had received an education, or engaged in urban based employment (except the military).

Another very important development in the 1970s in Sajir was the evolution of pastoralist units that are very well integrated in the cash economy of the country. These groups utilise all the modern technology that is of use to them; and they also receive cash incomes through the wages of some of their members, livestock trading, and even some farming activities. Their movement is restricted to the surroundings of their home base in Sajir, where part of their kin are permanently settled. They also employ, in some cases, salaried

herders.

Another feature of the settlement pattern of Sajir is an early marked interest in landholdings through the appropriation of privately owned date-palm gardens and baal sites. The interest grew in 1965 when engines and pumps were beginning to be utilised for water extraction, and farming became a real possibility for the bedouins of Sajir. The subsequent heightened interest in the 1970s, and the 1980s was in part a continuation of the same process, as well as a rational response to the new incentives in the agricultural sector.

The data also suggests that the sedentarization process had been gradual prior to the developments of the 1970s. Those who had settled early were seen to be actively engaged in pastoral, as well as non-pastoral production. Residential stability had not prevented the bedouins from relying on livestock as a source of livelihood. This is primarily because the sedentary agricultural production was on a subsistence level; as well as being limited in nature and requiring very little physical labour

Various forms of pastoralism have also emerged which combined the best and most suitable of the non-pastoral activities with the traditional ones. Mobility was then adjusted to suit the emerging pattern of production. The later developments, which required the settling nomads to engage in radically different forms of agricultural production, are less compatible with the traditional occupation. They also require new levels of commitment to sedentarism in order to produce successfully and gain maximum advantage (agricultural activities will be the subject of the next chapter.)

The forms of pastoral production that emerged previously, as well as the present cash-based pastoralism (seen among some bedouin groups) in Sajir may well be transitory in nature; but they also require us to re-evaluate our notions of sedentarism. That is because the reduced levels of mobility (or even sedentary conditions) had not eliminated the primary dependence on livestock, nor did they signify complete settlement.

On the sedentarization process, *some noteworthy points are evident from the previous analysis.* These are:

- A) The early interventions in the social-economic structure of pastoral nomadism in Saudi Arabia, through "ideological" means, were not as decisive as the later "economic" elements affecting this bedouin community. In fact Al-Hanatish continued to practise pastoralism, either in their (Ikhwan) settlement, or even by returning to the desert. The recent factors, i.e. ecological difficulties, policy-instigated economic interventions (like the new principles of land utilization), and the opening up of other avenues for livelihood were much more effective in transforming the pastoral economy, and encouraging the settlement of these bedouin nomadic groups.

- B) The levels of rationality and adaptability displayed by this bedouin community, in their short history of settlement, lead to the conclusion that there is not a problematical cultural change involved in the sedentarization process. In fact, as soon as any suitable, profitable and advantageous development had presented itself, the bedouins were ready to take it up

and adjusted their ways to accommodate it. Peasant agriculture did not offer better standard of living, and it also required significant labour withdrawal from the then dominant pastoral economy. Hence, the bedouins preferred baal, which is a more suitable addition to subsistence pastoralism.

As soon as economically advantageous, technological developments became available, the disposition towards agriculture increased until it became the dominant activity. This is, of course, contractory to the generally held opinion in Saudi Arabia, that bedouins have a cultural bias against agriculture. It is also sometimes a conclusion reached by the commentators on the failed (government-instigated) agricultural schemes for settlement (See chapter 8 for a comprehensive discussion).

- C) The above characterisation of the settlement process is possible, when the bedouin community is advantaged by having the necessary resources for settlement (i.e. a settlement area, tribally owned arable land, and a more 'decentralised' patterns of settlement). This is not to say that the role of the state, and the national context have not been decisive in actually providing the resources and the economic opportunities to this community. It is only to draw attention to a possible comparison with less fortunate bedouin communities in Saudi Arabia, who may appear less adaptive or less successful in their settlement pattern (like bedouins in shanty town communities around urban centres, or desert nomads).

- D) A final conclusion, drawn from the above, is that we can not study the bedouins and the sedentarization process of Saudi Arabia without emphasising the national setting, their status within, and relationship to the prevalent power and economic structure. They share this characteristic with most of the other Saudi communities (except the most isolated of groups), because most of the significant political and economic happenings are very closely associated with the decisions and the policies of the state. These policies, moreover, tend to define the nature and forms of the available choices.

References and Footnotes

- 1) Swidler, N., "Sedentarization and Modes of Economic Integration in the Middle East", in Salzman, P. (ed), *When Nomads Settle*, op.cit., P. 21.
- 2) See for example, Chatty, D., "The Pastoral Family and the Truck", in Salzman, P. (ed), *When Nomads Settle*, op.cit., P. 92-110.
- 3) In 1906 Ibn Saud emerged victorious over his rival Ibn Rashid in Qasim in the North of Najid, which gave him control over the entire region. This facilitated the later development and construction of the Ikhwan fighting force. This in turn allowed Ibn Saud to extend his authority over the other areas of this part of the peninsula. For a detailed account of prior stages of the Al-Saud family struggle for power, see Said, A., *The Transition from Tribal Society to a Nation-State*, PhD Thesis, University of Missouri-Columbia, 1980.
- 4) For detailed description of the Ikhwan phase of Saudi history, See Habib, J., op.cit.
- 5) Ibid.
- 6) Ibid.
- 7) The tribal practice of raiding was preached against by the Wahabi teachers since the beginning of the Ikhwan movement. Ibn Saud, furthermore, was able to convince tribal units to give up the special horses and camels used for raiding, because they were unnecessary in peaceful times. The Ikhwan raids on the tribal groups outside the agreed boundaries between Saudi Arabia and Iraq and Jordan were also completely prohibited around the middle of the 1920s. See Cole, D., *Nomads of the Nomads*, op.cit. P. 57. Also Habib, J., op.cit.
- 8) Musil, A., *The Manners and Customs of the Rwala Bedouin*, American Geographical Society, New York, 1928, P. 533.
- 9) Al-Gosaibi, K., *The Programme for Bedouins*, Central Planning Organisation, Riyadh, 1965, P. 6.
- 10) Ugo Fabietti described the pattern of land distribution among a section of Al-Shammar tribe. Since 1970, the land distribution for the members of the Abde Fraction was administered through the local Amir (traditional sheikh), and depended on such factors as the closeness to the Amir, the connections to powerful friends in the regional amirate (in the city of Hail), or Riyadh's ministries. See Fabietti, U., "Sedentarization as a Means of Detribalization", in Niblock, T. (ed), *State Society, and Economy in Saudi Arabia*, op.cit. P 194. For more general description, see Hajrah, H., *Public Land Distribution in Saudi Arabia*, op.cit. P. 19.

- 11) See for example, Bashir, F., The Case of Nomadism (to settle or not to settle), Central Planning Organisation in Saudi Arabia, Riyadh 1969. He described the bedouin groups as very poor, as a result of the drought years, and also predominantly dependent on government cash subsidies. Also see El-Farra, T., The Effect of Detribalizing the Bedouins on the Internal Cohesion of Saudi Arabia, PhD Thesis, University of Pittsburgh, 1973, P. 180.
- 12) Birks, J., and Sinclair, C., "The Domestic Political Economy of Saudi Arabia", in Niblock, T. (ed), State, Society and Economy in Saudi Arabia, op.cit. P. 199.
- 13) See Hajrah, H., op.cit. P. 122 - 136.

Chapter Six

The Agricultural Operation

INTRODUCTION

This chapter will look at the agricultural operation generally in Sajir, and more particularly at that among the interviewed farmers. It will be based mostly on the data of the interviews conducted with 38 farmers, and on the information obtained from the Ministry of Agriculture's offices in the region. The information gained through personal observation, group meetings and discussions will also form part of the analysis in this chapter.

The particular nature of the farmers in Sajir, as sedentarised bedouins, or recently settled nomads should be highlighted at this particular point; but their situation must not be thought of in isolation from the general conditions prevalent in the economic environment that they are engaged in. Many of the factors operative in their situation are shared by the rest of the agricultural operators in the region, even those from sedentary villages and farming communities.

This chapter will focus mostly on the basic elements of agricultural production, namely land, machinery, labour and output. Agricultural credit and incentives will be discussed. The problems highlighted by the farmers themselves, and observed in the course of field work, will be alluded to throughout, as will other pertinent issues such as other economic resources and the forms of land appropriation. Animal wealth, however, which is a major element in the economic resources of sedentarized nomads, will be left out of this chapter because it merits closer scrutiny in the next section of this work.

The chapter is divided into two sections. The first deals with the general features of agriculture in Sajir, while the second and main

section looks at the various elements of agricultural production among the persons interviewed.

I The General Features of Agriculture in Sajir

The visual impact of the farming region of Sajir does not correspond to the classical and common place view of a farming area, even to that of old and traditional farms in Saudi Arabia. For a first time visitor, in the months between April and October, farms in Sajir do not look as farms should, nor are they immediately recognised as such from a distance. Driving on the main road which connects Al-Dawadimi in the central region to Aunaisah in the north, and which cuts across the centre of a number of settlements including Sajir, small clusters of buildings can be seen to the left and the right of the road. These clusters are divided by long distances of four to five kilometres. A sure indicator of a farm passed during that period is the glitter of the metal tube of the irrigation systems, the siloes, and the storage units in the hot sun.

There is very little greenery around the farm buildings, and date-palm trees are rarely grown in large numbers around wells, except in the older farming locations. Once one draws nearer to the farming land, the signs become clearer. The land shows signs of previous cultivation: leveled earth and bails of straw are sometimes stacked to one side of the field. When the farm buildings are approached, the agricultural machinery and storage units come into view. The tractors, ploughs, harvesters and other machinery are parked under a metal structure that shades them from the sun.

There are usually small storage units for fertilizers, equipment, wheat and other items. Small rooms are built in brick to accommodate farm hands and other workers. The owners of the farms, in the majority of cases, do not live on the farming area. They may live in Sajir's centre or in hamlet settlements around Sajir, which are usually formed by a group of kin or relatives. Some built their homes in an area of their land that is uncultivated and which is conveniently located nearer the main roads.

Farms are generally connected to the main roads by dirt tracks, that may continue for 10 miles or more. The dividing lines between farming properties, however, are not immediately apparent to the inexperienced observer because there are no fences or hedges. Instead there are lines of raised earth connecting land marks which serve as boundaries between properties.

The expected hustle and bustle of people and animals on the farm gives way in Sajir, during the summer months, to the soothing quiet of the desert and the rhythmic sound of the irrigation pump. Small or large herds of sheep and camels may be passed along the way, usually herded by farm workers, who appear alien to the environment in their Sudanese, Egyptian or Pakistani national dress.

The months of November to March present a completely different picture. Circles of bright green dominate the horizon divided by desert white. The air is fresher and more humid, and the long tubes of the irrigation systems rotate slowly over the

fields sprinkling water, which appear from a distance like low rainbows of bright colours. The farms in Sajir come to life during the wheat cultivating season. The owners and workers are mobilised into action, ploughing, sowing, fertilising and at a later stage harvesting and storing.

The farming activities are mostly dominated by the constant vigilance over machinery and irrigation systems; ensuring that all is in working order and that the water supply is adequate at every stage of production. The machinery on the farm can be divided into two categories:

- a) Fixed machinery - usually refers to all machinery required for the water supply and the well.
- b) The movers - this refers to all moving machinery such as tractors, ploughs, irrigation systems, harvesters and other agricultural implements.

1) The Water Source

Wells in Sajir are dug to a depth of 500 metres below the surface. The water from the underground reservoirs rises in the well to about 190 metres from the surface. The well is divided into two parts. The lower one is small in diameter and can only accommodate the pipes that come into contact with the water. The upper section is wider and can accommodate the water pump.

After the lower pipes are installed, the water pump is hooked unto them and connected to the surface with more pipes. The

water pump is powered by an engine, which is installed near the opening of the well. In the 1970s 20 pipes were needed to reach the water level each pipe measuring 3 metres in length. The subsequent increase in land and water utilisation have increased the number of pipes required in each well, to about 85 pipes by 1987. This represented an average increase of 5 pipes per year for an annual depletion rate of the water resources of 15 metres. 10 - 12 years of irrigation have thus seen the water table lowered 150 to 180 metres (see chapter 4).

The endeavour to reach the water table by lowering more pipes into the well is not a straight forward operation. Some wells are dug under old regulations which means that the lower shafts of the wells cannot accommodate more pipes, or that the upper sections are not large enough to accommodate the lowering of the water pump after a certain depth. This means that the water pumps may not be able to operate efficiently, or that the well will have to be abandoned at a certain stage.

The cost involved in installing water systems is as follows:

- 1) The digging operations - between SR 220,000 to 250,000 for a well of 500 metres depth.
- 2) Engine - between SR 8,000 to 340,000 depending on the engine's size and capacity.
- 3) Pump - SR 80,000.

The last two items are covered by a 50% subsidy rate when the loan is obtained through the Saudi Agricultural Bank. Well

digging, however, is not covered by any subsidy but credit can be obtained from SAAB for this operation. Other expenses are the price of 85 pipes, a diesel tank and the spare parts for the fixed machinery.

Other farm installations include:

- 1) Small storage units for seeds, fertilizers, straw and other needed items.
- 2) A collection tank for water which requires a smaller water pump. The water collection structures were traditionally small and the water was constantly pumped from the well during irrigation. Nowadays, the water tanks are large pool-like structures, which allow the farmers to collect enough water for the irrigation operation at any given time. It also ensures that the water pressure is constant, which increases the efficiency of the modern irrigation systems. A structure of this kind costs between SR 10,000 and 12,000.
- 3) The storage unit for the wheat grain; which may be a modern metal silo for the large producers, or a traditionally built brick structure resembling a three sided enclosure in which the grain is stored and covered with a large piece of canvas cloth.

2) The Moving Machinery

The basic machinery that must be available to the farmer in Sajir, in order to conduct a modern agricultural operation is the following:

A) The tractor - the major implement for earth moving. All farms in the area have at least one tractor. They cost between SR 120,000 and 400,000 depending on size and power. The attachments that may be bought with a tractor are the following:

- 1) Disc plough (SR 18,000). This plough is used for digging, turning and burying. It is most efficient at penetrating deep in the soil surfaces, but not so efficient at turning and burying. They are mostly used for new areas of cultivation or for particularly hard soil.
- 2) Mould board plough (SR 15,000). This is more commonly used by the farmers in Sajir, and it is used for digging, burying and turning.
- 3) Chisel plough (SR 12,000). A deep penetrator of the soil, but not efficient at turning and burying.
- 4) Field cultivator. Commonly called mishd (comb) (SR 8,000). This plough is used for loosening and weeding. It penetrates to about 10cm in the

soil and is preferred in the region for the levelling of the ploughed fields.

- 5) Soil leveller (SR 5,000). This may be used to prepare the field for sowing and planting.
 - 6) Grain and fertilizer drill (SR 8,000). This implement combines two functions, sowing and fertilizing. It is common and necessary for all wheat growers.
 - 7) Baler (SR 20,000). This is especially needed if the wheat straw is to be exploited fully. There are other versions of balers for alfalfa and other animal feeds.
- B) The harvester - commonly called combine (SR 250,000). This machine combines the functions of cutting, threshing and cleaning of the wheat crop. Ownership of a harvester is a must for almost all wheat growers in Sajir. Those who do not, have to rent it at harvesting time.
- C) Central Pivot Irrigation Systems (CPIS). Commonly called al-rashash (the sprinkler). This is the single most effective agent of the modernisation of wheat cropping in the country and of the increase in its output. These are massive tubes on wheels that revolve around a central pivot. The water is pumped into these tubes and it is then ejected through sprinklers that run

across the underside of the tubes. They come in a variety of shapes and sizes. The length of the tubes ranges between 45-56 meters and covers an area of 25 - 60 has of cultivation. The cost of the CPIS may be between SR 120,000 and 400,000.

The irrigation system may be hooked directly to the well by pipes, or to a large water tank. The latter method insures a constancy of water pressure, which increases the CPIS efficiency and life cycle. The CPIS is operated by a button near the central point, but depends, for its operation, on the precise knowledge of when and how to effect irrigation of the crop. The water level has to be monitored constantly throughout the cropping season and the speed at which it moves must be precisely fixed. The CPIS is not covered by any subsidy programme.

The minimum cost to an average farmer for a well and the basic machinery associated with wheat cropping is very high, even when we do not include the cost of fuels, farm buildings, farm hand wages and transport vehicles. The cost to the farmer would be the following:

	<u>Market Cost</u> <u>in SR</u>	<u>Subsidy Rate</u>	<u>Cost to</u> <u>Farmer</u>
Well Drilling	220,000	-	220,000
Small Engine	80,000	50%	40,000
Water Pump	80,000	50%	40,000
Tractor	120,000	45%	66,000
Mouldboard Plough	15,000	45%	8,250
Field Cultivator	8,000	45%	4,400
Soil Leveller	5,000	45%	2,750
Seed Fertilizer	8,000	45%	4,400
Drill			
Baler	20,000	45%	11,000
Harvester	250,000	45%	137,500
1 Small CPIS	120,000	-	120,000
			<hr/>
	TOTAL COST TO FARMER	SR	654,300
		or \$	174,480

Although well drilling and the CPIS are not covered by any subsidy programme, the farmers could receive credit from SAAB if they meet the leading requirements of the Agricultural Bank of:

- a) having a formal and modern deed for their lands and
- b) meeting all previous annual repayments of their loans.

What this means is that the farmers who lose a crop because of water shortage or disease in a season would have to pay the

full cost of any machinery needed in the future, because they cannot go to SAAB for credit. The large successful farmers in Sajir usually own all of the previously outlined agricultural machinery, sometimes two or more of each one, depending on the number of wells and the number of fields that they possess - as will be shown below.

3) Agricultural Land, Projects and Landholdings in Sajir

Arable land in Sajir was estimated by the regional agricultural officials to be 55,000 hectares in 1979, but agricultural holdings did not exceed 500 in number⁽¹⁾. By 1982, however, the same office estimated that the number of agricultural holdings had increased to 1200-1400 farms⁽²⁾.

The Saudi Arabian Agricultural Bank extended 498 loans between 1981 and 1982 totalling SR 153.4 million, covering land holdings totalling 41,812.3 hectares. Of these only 3,854.9 hectares were cultivated⁽³⁾. By 1983, the SAAB regional office was sufficiently developed to handle regional credit transactions. Between then and 1986 SR 304.4 million was loaned, representing 765 credit transactions. The number of farmers served by SAAB in the region, however, did not increase substantially, remaining approximately at the same level of 1483 farmers.⁽⁴⁾

If we assume that the figures submitted by MAW and SAAB's Sajir offices are accurate, it would appear that the majority of land holdings were created between 1979 and 1982. The increase in value and number of loans after 1982 may represent the following:

- A) Reclamation of new land holdings which do not exceed 24% of all available land in the Sajir region.
- B) New loans obtained by already established land holdings and farms.
- C) Large agricultural projects on uncultivated lands. These lands could be recently acquired or established farms with large uncultivated areas.

It must be stressed at this point that the regional offices of MAW and SAAB, which are located in Sajir, serve the farmers in an area that extends beyond the boundaries of Sajir itself. In fact nine villages and settlements in the area rely on Sajir's offices for agricultural services and credit. Sajir's agricultural land, however, is the most extensive of all lands in the region. This has been confirmed by the agricultural officials in the area, although there is no specific data relating to its size. This is also reflected in SAAB's statistics regarding agricultural projects in the region. In 1982 there were eleven projects which obtained credit from SAAB. Seven of these were within Sajir's boundaries.⁽⁵⁾

By 1986, the large agricultural projects were sixteen in number.⁽⁶⁾ These were for livestock breeding, poultry, eggs, wheat and animal feed projects. The largest of these projects are the following:⁽⁷⁾

- 1) **Prince Abdul-Rahman Al-Saud wheat and animal feed project.**

This was the largest obtainer of credit from SAAB in the region. The loan, however, was paid by SAAB's main branch in Riyadh which meant that information on the size and capacity of this project was not available locally. The project itself is located in a relatively remote area of the region which was not visited by this researcher.

2) Falah Al-Muhaiya wheat and animal feed project.

This is a 716 hectares project on which construction began in 1983. It involves the cultivation of 537 hectares of wheat and 179 hectares of animal feeds (alfalfa, grasses), and was funded by a loan of SR 11.2 million from SAAB. Al-Muhaiya is a relative of the Amir of Sajir, the sheikh of Al Hanatish lineage.

3) Abdul Allah Al Hubayb grain and animal feed project.

510 hectares were devoted to wheat production and 425 hectares for animal feed production. This project obtained 11.1 million SR in credit and was operative in 1983. The owner is a resident of Riyadh, who had been the director of SAAB for many years, before turning to agricultural activities.

There are other smaller wheat projects in the region as well as a number of livestock, poultry and egg production projects. Some of these projects are the following:

- * Four projects for sheep rearing: these range in size from 1,000 to 3,600 head of sheep. Credit obtained for these projects ranges from SR 2.8 to SR 5.2 million. All are owned by members of Utaibah tribal lineages residing in Sajir.
- * Two projects for poultry and egg production. The former project capacity is 480,000 chickens per year, while the latter produces 8,250,000 eggs per year. Each obtained credit from SAAB amounting to SR 2.3 million.

Land holdings in Sajir are very large compared to the national average of less than 10 hectares for 91% of the rural population (see chapter 4). The smallest holding encountered during the field work was 25 hectares. Land holdings, however, may reach 1000 hectares (as was seen above) in agricultural projects. The average landholding according to agricultural officials in Sajir is between 100-150 hectares.

The general categorisation of farms, according to the local population, is the following:⁽⁸⁾

Small Farms: Less than 100 hectares in size. This would accommodate 1-3 central pivot systems, depending on the size of the area covered by the irrigation system (30 - 60 hectares).

Medium Sized Farms: 100 - 300 hectares. These accommodate 3 to 10 central pivot systems.

Large Farms: More than 300 hectares. These may accommodate more than 10 irrigation systems.

The size of the land holdings does not always define the area of cultivation, nor the number of users. The area cultivated may represent only 50% or less of the landholdings of an individual or a family. Landholdings, moreover, may be used collectively by a number of households or by 2 or more joint owners, usually from the same family. This will be discussed more fully in the next section, when the data from the interviews is analysed.

II Agricultural Operations among the Farmers Interviewed

Most of the farmers interviewed were surprisingly forthcoming with information relating to their agricultural activities. Most were specific about the size, output, income and credit facilities of their landholdings. They were also outspoken in outlining their own problems and the problems of the area generally, if they actually felt them to exist. Some displayed insights that surpassed those of the agricultural officials in the region. Rather than answering "I do not know" they tended to ridicule questions for which they had no answer. Their pride in what they have accomplished in their agricultural operations was very clearly displayed.

The only area where farmers were not always forthcoming, as regards their agricultural activities, was in reporting the area of cultivation in their landholdings. Some felt a need to stress that the entire area of their landholdings was cultivated. The reason for this tendency may stem from the specification by the Islamic laws that all the granted land

must be cultivated within three years of appropriation (see chapter 4). This was confirmed at one point, when a farmer accused the researcher of working for the government, and therefore seeking such information regarding the size of the land and the cultivation.

Other reasons for such reluctance may be due to their pride and their desire to be seen as fully productive. Alternatively, they may have included all areas that were cultivated at a certain point in the past. Whatever the reasons, the subsequent analysis of the data showed that there are inaccuracies in some cases. These will be discussed more fully later in this chapter, and the effect on the analysis will be pointed out.

1) **Other Economic Resources**

The farmers interviewed were predominantly wheat cultivators, but the majority had other resources besides farming (see table 6.1). While six said that farming was their only economic activity, ten were involved in three or more income generating activities. Wage employment was the most common of these resources, with the military as the most common employer of the wage earners (see table 6.2). Some farmers said that they had retired from the National Guard, and were receiving a pension. These have not been included in the wage earning category, because a pension does not represent an economic activity as such.

Thirteen of those interviewed said that they received substantial revenues from livestock trading and included it in

TABLE 6.1SOURCE OF INCOME VARIATION AMONG THE FARMERS INTERVIEWED

TYPE	NO
Farming Only	6
Farming and Livestock Breeding	7
Farming and Employment	10
Farming and Commerce	5
3 or More Resources	10
TOTAL	38

TABLE 6.2TYPES OF EMPLOYMENT AMONG THE FARMERS WHO ARE ALSO WAGE EARNERS

TYPE	NO
Civilian workers in local administration in Riyadh	4) 1) 5
Military employment (National Guards)	7
Religious employment (Imam)	2
Teachers	2
Driver	1
TOTAL	17

their economic resources. Five were involved in commercial activities such as grocery shops, real estate and construction. Animal wealth will be discussed more fully in the next chapter, and will therefore be excluded from the present discussion.

There was no common pattern of agricultural production among these farmers who were involved in farming only, except that they tended to be in the older categories. Their farm operations, however, were spread among all the categories of farms, in terms of size and pattern of production.

2) Major Characteristics of Land Ownership

This section will deal with the four most important elements associated with land ownership in Sajir. These are:

- A - forms of ownership
- B - forms of appropriation
- C - size of landholdings
- D - size of cultivation

A. Forms of Ownership

The overwhelming majority of the interviewed farmers owned their farms jointly with another person, or a number of persons. 26 of the 27 farmers who are joint owners, owned their land jointly with other members of their extended family like brothers, nephews (brother's son), male cousins, or uncles. Only one person said that a female relative (his mother) was a joint owner of the family land. This will be commented on later in this chapter.

The number of joint owners, in the cases of collective ownership, ranged between two and ten. Joint ownership also coincided with an extended family situation. This was particularly clear when the farmers were asked about the division of the proceeds of the farming operation. Nearly all said that the income went into the same household and it was equally shared. Only two of the joint owners said that the family is thinking of dividing their land assets between the family members owning it. These owners concerned were two brothers in one case, and three cousins in the other.

The incentive for joint ownership in all the cases observed was attributed to the desire to keep the family together, even in the cases of small landholdings. None of the joint owners alluded to the size of the farm, nor to the economic sense of keeping it intact. The landholding in the majority, if not all the cases, was acquired by the head of the household for the benefit of all the family members.

The individual owners, who numbered eleven, said that they preferred to own their lands individually. Two of them, however, did not have any surviving brothers, nor close relatives in the area. All had two or more incomes, and nine of them were from old established families in Sajir. The landholdings ranged between 50 to 330 ha with a majority in the "medium sized farms" category. These owner will be discussed further below, because they represent a deviation from the majority of farmers interviewed.

B. Forms of Land Appropriation

Land is usually acquired in Sajir through a grant from the local Amir (Sheikh of Al Hanatish lineage). This is because the former Amir, the father of the present one, was given a deed by King Abdul Aziz entitling him and his people to the lands associated with the settlement of Sajir. He, therefore, had the right as the Sheikh of the tribe to distribute these lands among his people according to his discretion.

It is interesting to note here that the people of other settlements and villages often refer to the Amir of Sajir as a generous distributor of land among his people. It is often said that if Ibn-Muhaiya was not far sighted and flexible in his *practice of land distribution*, *Sajir would not have been as large a settlement as it is now.*

Comparisons are often drawn between him and the Amir of a neighbouring settlement, who has similar rights of distribution. The latter is described as greedy and restrictive in his land distribution practices. It was observed during the course of visits to the settlements nearby that three small settlements were established by factional groups, who had broken from the settlement headed by this ill-regarded Amir. This may be due to his land distribution practices, which alienated some members of the settlement he heads.

Nevertheless, the people interviewed from Sajir were in no mood to communicate such information about their Amir, or his land

distribution practices. In fact, no overt criticism was ever mentioned, especially by the men encountered in the course of the fieldwork. Some women, however, expressed some dismay about the number of people from other lineages and tribes who have benefitted from the Amir's practises of land distribution. One woman said on one occasion: "Our Amir treats strangers better than us." She was referring, however, to the mayor of Sajir, who is not a member of the local tribe, and who has considerable influence in the area.

The fact that the researcher herself was in a sense a "stranger" may have contributed to the lack of criticism or comment. Competition over land and jealousy between the locals in settlements and villages is commonplace in Saudi Arabia. The rights of the Amir, however, are taken as a matter of fact among the people for whom such land distribution practices apply. No land grant can be distributed unless there is a judicial case to be answered. These cases are usually put by past utilizers, who feel a right to the granted land, and bring them forward to the courts.

The majority of those interviewed were granted their lands by the the local Amir either partially or wholly (see table 6.3). Twenty said that their lands were acquired by a grant from the Amir. In one case the land was given personally to the father of the farmer interviewed by King Abdul Aziz. Purchasing of the land occured in twelve cases among the farmers, and four of these involved the whole area of the farm. Six of the buyers were individual owners (see table 6.4).

TABLE 6.3FORMS OF LAND APPROPRIATION AMONG ALL THE FARMERS INTERVIEWED

FORM OF APPROPRIATION	NUMBER OF FARMERS
Granted	
- By Local Amir	19
- By King Abdul-Aziz and Local Amir	1
Purchased	4
Inherited	3
Part Granted, Part Bought	6
Part Inherited, Part Bought	2
Part Granted, Part Inherited	3
TOTAL	38

Table 6.4Forms of Land Appropriation by Collective and Individual Owners

Forms of Appropriation	Collective Owners	Individual Owners
Granted	18	2
Purchased	3	1
Inherited	0	3
Part Granted, Part Purchased	2	4
Part Inherited, Part Purchased	1	1
Part Granted, Part Inherited	3	0
Total	27	11

Inheritance was cited by only eight of the land owners. This is not surprising considering the recency of land ownership among the settlers in Sajir. Those who mentioned the inheritance factor had, in the majority of cases, an old claim within the Sajir area (site of an old well or date-palm garden), on which further grants by the Amir were based.

The data becomes more interesting when we look at the pattern of land appropriation among joint or collective owners, and individual owners. From table 6.4, we can say that land granting by the local Amir was mostly based on an extended family or joint owner basis.

Conversely, the incidence of land purchase was higher among the individual owners, which may suggest a degree of affluence and a more developed sense of land as a marketable commodity. Those who were granted their land individually were small land holders: 50 ha in one case, and 90 ha in the other.

The biggest category among the individual owners was that of "part granted, part bought". This may indicate the following:

1. Granting of land to individuals may have occurred more than the table shows.
2. These individuals, moreover, were sufficiently affluent or successful to buy more land.
3. Division of granted land between joint owners occurred prior to the buying of more lands.

The four inheritors among the individual owners were mostly old settlers. Two of them had no surviving brothers, and the other two had brothers and cousins in the community who owned separate lands.

C. Size of Land Holdings

The landholdings among those interviewed varied between 25 and 900 ha. The three largest land holdings (800, 900, 900 ha) were owned by residents of three hamlets in Sajir, which were established by newly settled lineages of the local tribe. Livestock breeding was a major activity in two of these hamlets, which reduced the cultivated area considerably.

The largest number of the farmers owned "medium sized land holdings" according to local standard (see table 6.5). Seven owned more than 300 ha and ten were small owners. The local standard, however, leaves a margin of 200 ha between small owners and large owners, which is very substantial in terms of cultivation. It was therefore decided that the medium category should be subdivided into two categories of ownership, which will be more relevant to the evaluation and analysis of the data. This became more apparent as further analysis of the farming operation progressed.

Table 6.6 shows that the majority of farmers owned 200 ha or less. That was the case for both the individual owners and the collective owners. The collective owners, however, were more likely to be distributed more evenly among all the categories of ownership. This may be indicative of the numbers of

TABLE 6.5DIVISION AMONG FARMERS ACCORDING TO LOCAL CATEGORIZATION
OF LANDHOLDINGS AND TYPE OF OWNERSHIP

TYPE OF OWNERSHIP	SIZE IN HECTARES			TOTAL
	SMALL 100 HA OR LESS	MEDIUM 101-300 HA	LARGE OVER 300 HA	
Individual Owners	3	7	1	11
Collective Owners	7	12	6	25
TOTAL	10	19	7	36*

* 2 persons did not know size of their land holdings.

TABLE 6.6DIVISION AMONG FARMERS ACCORDING TO SIZE OF LAND AND TYPE OF OWNERSHIP

TYPE OF OWNERSHIP	SIZE IN HECTARES				TOTAL
	100 OR LESS	101 - 200	201 - 300	OVER 300	
Individual	3	5	2	1	11
Collective	7	7	5	6	25
TOTAL	10	12	7	7	

households sharing the use of land, or a result of the interviewing method which sought to include as many of the recently settled as possible (see chapter 3). These groups tended to own large landholdings collectively and live beyond the more populated farming areas.

The data presented here is based on interviews with willing and available farmers. The number of individual owners of large landholdings would have increased in the sample, if the more successful of the farmers and owners were more willing and available to grant interviews. This data, moreover, is not entirely significant without actually looking at the cultivated areas of the land holdings, which will be discussed next.

D. Size of Cultivation

The areas of cultivation ranged in size between 10 and 528 ha (see table 6.7). This shows that a substantial number of hectares remains uncultivated in the landholdings. This was confirmed when the total hectares owned were divided into cultivated and uncultivated (see table 6.8). In fact the hectares uncultivated exceeded the hectares cultivated by those persons who did farm the entire area of their land, and who numbered 16. The largest landholders accounted for most of the uncultivated hectares. On the three holdings of 900, 900, and 800 ha, a total area of 1422 ha remained uncultivated. Only one large landholder (over 300 ha) said that he cultivated all of his land. The information he gave was suspected, however, of being not entirely correct; this will be discussed later when farm output is examined.

Landholdings and Area of Cultivation for all Farms

Categories of Land Holdings	25 - 100 ha		101 - 200 ha		201 - 300 ha		Over 300 ha	
	Landholding	Cultivation Area	Landholding	Cultivation Area	Landholding	Cultivation Area	Landholding	Cultivation Area
	25	25	114	90	225	150	330	120
	50	50	130	100	246	10	400	300
	50	50	135	70	260	260	400	400
	64	64	150	60	288	288	460	200
	71	41	150	100	290	219	800	528
	90	72	150	150	300	300	900	250
	96	96	150	150	300	300	900	400
	100	50	160	120				
	100	60	169	169				
	100	100	190	190				
			200	180				
			200	200				
Number of Farms	-	10	-	12	-	7	-	7
Total Number of Hectares	746	608	1898	1579	1909	1527	4190	2198
Percent Cultivated		82%		83%		80%		52%

(1) Two farmers did not know the size of their landholdings, nor their area of cultivation

TABLE 6.8CULTIVATED AND UNCULTIVATED HECTARES OF LANDHOLDINGSAMONG FARMERS INTERVIEWED

	SIZE OF LAND	SIZE OF CULTIVATED	HECTARES UNCULTIVATED	NUMBER OF FARMS
All Cultivated	2792	2792	0	16
Some Uncultivated	5951	3120	2831	20
Don't Know	-	-	-	2
TOTAL	8743	5912	2831	38

The considerable shortfall in area cultivated relative to the total landholdings, especially in large holdings, may indicate one or both of the following:

- A. It may reflect that some other forms of land utilization exist, which reduce the need for the farmers to increase their cultivated area. This was certainly true in two of the three largest landholdings in the sample. The owners involved owned a large number of animals and listed livestock as a source of income.

- B. The tendency to cultivate all or most of the land owned was most prevalent among those who owned 200 ha or less (see table 6.7). This may indicate that the ownership of larger landholdings is not, in the majority of cases, significant for any increase in cultivation or agricultural production (at least for the farmers interviewed). If we exclude other productive uses of the owned land, we could say that vast amounts of land could be more productive, if held by other agricultural operators.

Agricultural utilization, however, is not the only productive utilization of land, as was previously observed in two cases (a dominance of livestock breeding). Although animal wealth is not discussed in this chapter, a comment may be offered here about the need to generalize the benefits of the availability of convenient land for grazing over a larger number of settled bedouins. The smaller farms established by settled nomads may be more disposed to keep and increase the number of animals, if

the land for grazing (communally or individually held) is more readily available. Even when animals are kept for cultural reasons, or as fixed assets (as is the case with bedouins in Saudi Arabia), the gradual increase in animal wealth, and the gradual integration of the bedouins in the national context will undoubtedly lead to better conditions in the future, for livestock breeding as an alternative economic resource for the rural population. These issues are explored more fully in the next chapter.

Table 6.9 shows that the majority of farmers interviewed (26 persons) cultivated 200 ha or less. These 26 individuals accounted for 45% of all the cultivated area and owned 44% of the uncultivated area (an average of 47.6 ha per person). The 10 larger cultivators accounted for 55% of all cultivated land and owned 56% of the uncultivated area. If we calculate an average ownership per person of the uncultivated area in the two larger cultivation categories, we would not be reflecting the reality of the situation. That is because the three largest landholders (300 and over) who remained in the two largest cultivation categories, account for most of the ownership of the uncultivated area (1422 ha). The other seven individuals owned 171 ha only.

Comparison between table 6.7 and table 6.9 shows why the uncultivated area was fairly constant for all categories of cultivation in table 6.9. Table 6.7 shows that six farms have moved from high categories of landholdings to the lowest category of cultivation (10 - 100 ha). Five of these 259 uncultivated hectares are from the second category and 236 ha

TABLE 6.9DIVISION AMONG FARMERS ACCORDING TO SIZE OF CULTIVATION

CULTIVATION SIZE	NUMBER OF HECTARES OWNED	NUMBER OF HECTARES CULTIVATED	NUMBER OF HECTARES UNCULTIVATED	NUMBER OF FARMS	PERCENT OF TOTAL AREA UN- CULTIVATED
10 - 100 HA	1671	1038	633	16	22%
101 - 200 HA	2233	1629	605	10	21%
201 - 300 HA	2738	1917	821	7	29%
OVER 300 HA	2100	1328	772	3	27%
TOTAL	8743	5912	2831	36	

from the third category of ownership. The same is true for the 100 - 200 ha category of cultivation. 470 ha of uncultivated land has been transferred to this category from the highest ownership category, while 125 ha was transferred to it from the third category of ownership (201 to 300 ha). The third category of ownership shows the least change. This may be because of the exaggeration factor mentioned previously.

The above data seems to reinforce the previous point, that there are alternative uses to landholdings among large owners, as well as the fact that ownership of large areas of land is unnecessary (agriculturally speaking) for farmers like the ones in Sajir. This will be returned to when the output of farms is analysed. Suffice it to say here that only one of the seven large landholders {see table 7} achieved reasonable success in his farming activities by a) cultivating a large area of his farm holding and b) achieving good productivity on the cultivated area.

There are other factors which may be operative in determining the cultivated areas of landholdings. These are the following:

1. Cultivation of new areas of land requires heavy investment on the part of the farmer, even when we assume that the necessary machinery like tractors, ploughs, and harvesters are available. A new well and new irrigation system would cost the farmer at least SR 340,000 (\$90,667). Neither of these expensive requirements is covered by a subsidy programme. Farmers are also discouraged by the yearly drop in the

underground water level and are mostly concerned with their present cultivation areas, without adding to their problems.

2. Wheat cultivation dominates the area at present because of its high profitability. Vegetable, fruits and alternative crops, which were equally important in the past, have been largely abandoned at present by the farmers in the region. Even when they are cultivated, the area utilized for them is very small because the method of cultivation is traditional, and covers only 5-10 ha. Alternative crops will be discussed later in this chapter.

3. The Ownership of Agricultural Machinery

There are three elements that must be distinguished in relation to the quantity of agricultural machinery on the farm. These are the following:

- A - Well.
- B - Central pivot irrigation systems (CPIS).
- C - All other machinery (tractors, ploughs, harvesters and other items).

It became quite clear from the data that the number of deep wells and the number of irrigation systems were directly related, in the majority of cases. The exception was when the farmers were large cultivators or involved in alternative cropping, in which case the number of wells exceeded that of CPIS. This will be discussed more fully later.

The largest farmer in the sample had 22 deep wells, 17 irrigation systems and 50 agricultural machines for 528 ha, cultivated in wheat. The smallest farmer in the sample was a 10 ha wheat cultivator who owned 236 ha of uncultivated land, one well, one irrigation system and three items of farm machinery. He had just installed his CPIS on a new well, given that the old well had not functioned for the previous two seasons, and he had just missed the planting time of wheat for 1985. The next smallest cultivator was a 25 ha landowner, who owned one irrigation system (installed on one deep well), three farm machines, and one surface well to help with the water shortage he was experiencing from his deep well.

A. The Number of Wells

The number of wells ranged between 1 and 22 among the farmers interviewed, with a majority of 24 owning 2-4 deep wells. Six of the farmers said that they reserved 1-2 wells in their farms for the cultivation of other crops (vegetable, fruit, alfalfa and date palm). The irrigation systems were, in the majority of cases, attached directly to the deep wells. The CPISs were reserved for wheat cropping in all cases. In one instance a farmer experimented by planting water melon under an irrigation system in the summer. His output was reported as very good.

Surface wells are resorted to when there is a shortage of water during the wheat cultivating season. The surface water has more salt content than the underground water, and it is usually dug to a depth of 21 - 70 meters depending on the availability of water. The cost of such wells is considerably less than the

deeper ones, at SR70 per meter. These wells can be dug quickly and cheaply at times of need, but water is not always found. Some farmers in fact reported that they had to dig three different sites on their land before water was found.

Irrigation of crops for a long period by surface water is considered very damaging to the crops and the soil in the long run. Salt in the water increases the salinity of the top soil and renders future cropping very poor. Most farmers, however, are too desperate for their wheat harvest, and too deficient in cash flow to consider the long-term effects. Ten farmers in the sample had surface wells on their farms.

The farmers who had more deep wells than were needed for their irrigation systems numbered thirteen among those interviewed. They tended to be large cultivators of wheat, or cultivators of alternative crops. Those thirteen, however, do not exhaust the number of farmers who cultivate alternative crops. This is because a) not all the irrigation systems are attached directly to the well, so small farmers who may have only one well could use it in the summer for their tomato or water melon crop, and b) farmers who can afford more wells prefer to use large water tanks to collect water for irrigation. This water may be from one or two wells, and it ensures that the water pressure is always constant for the irrigation system.

From the above discussion, it appears clear that the water source is a matter of concern among most of the farmers interviewed. Ten had surface wells to augment their water supply, and 13 had more wells than they had irrigation systems

in an effort to avoid water shortages. This was confirmed by further analysis of the output of wheat and other crops, which were affected by water shortages.

B. The Central Pivot Irrigation System

On the first research visit to Sajir in 1982, the CPISs were relatively new on the scene. They were therefore considered prestige items. Al-rashash (sprinklers), as they are called locally, were often mentioned as an indication of wealth and/or respectability of farmers in the region. The researcher was told often to go to such and such a farm, because the owners have installed a rashash or a number of rashashat.

However, they have since become a commonplace agricultural implement, and today the farmers who have a small number of these (three or less) are not considered truly profitable or competitive by the general public.

The rapid change in the cultivation methods, as well as the attitudes of the farmers toward these changes, shows the high degree of adaptability among the farmers in Sajir. It is also a measure of the rapidity of the changes occurring at the national level, and how all groups of the Saudi population can very easily be incorporated within the process of change, if the conditions are favourable.

Although the size and capacity of the CPIS (30-60ha) is most important in determining the precise area of cultivation and how productive a farming operation is, the information needed

could not be obtained uniformly for all the farmers interviewed. This is a result of the inexperience of the researcher at the early stages, and the considerable difficulties involved in the interviewing process (see chapter 3). If the data had been obtained uniformly, then any exaggeration of the cultivated area would have been picked up immediately. Fortunately the farmers in most cases gave accurate information. Those who did not, had to be deciphered from the data relating to farm output.

Despite all of these problems, some general comments are possible. The farmers interviewed, for example, in the majority of cases owned three or less of these systems (see table 6.10).

Those 29 individuals, however, do not correspond to the numbers of persons in the "100 ha or less" area of cultivation (see table 6.8), because there is considerable variation in the sizes of the irrigation system. A 100 ha cultivation may have up to three small irrigation systems on the farm (25 to 30 each), while a 200 ha cultivator may also have three irrigation systems (60 ha each). So in all probability the number of individuals owning one to three irrigation systems should correspond to the 200 ha or less cultivators. This means that four extra farmers at least have exaggerated the cultivated area on their farms.

Alternative produce like fruit, vegetables and alfalfa are mostly cultivated traditionally, which means that not more than ten ha were assigned for them. This means that we can ignore

Ownership of CPIS Among the Interviewed Farmers

Number of CPIS	1	2	3	4	Over 4	115
Number of Farmers	9	8	12	5	4	38

Table 6.11THE OWNERSHIP OF FARM MACHINERY AMONG THE INTERVIEWED FARMERS

NUMBER OF MACHINES	NEW FARMS 1984, 1985	10-100 HA CULTIVATION AREA	101-200 HA CULTIVATION AREA	201-300 HA CULTIVATION AREA	OVER 300 HA CULTIVATION AREA	TOTAL
1 to 4	4 (1)	1	0	0	0	5
5 to 8	0	7	0	0	0	7
9 to 12	1	6	4	4	1	16
Over 12	0	1	5	2	2	10
TOTAL	5	15	9	6	3	38

(1) The two farmers who did not know the size of cultivation were owners of newly established farms (1984).

alternative cultivation as a reason for the discrepancy in the data. No conclusions, however, could be drawn without accurate and precise information about the size of the CPIs for this group of farmers.

There were only four farming operations who owned more than four irrigation systems. The largest owner (17 systems) was the largest cultivator (528 ha), but the other three said that they cultivated 150 ha, 200 ha and 288 ha. *What this suggest* is that the ownership of the irrigation systems did not correspond to the cultivated area, but to the degree of affluence that the farmer possesses. This was confirmed by looking at the farm output. Two of the farmers who owned more than four irrigation systems scored the highest productivity among all farmers. Their incomes from wheat were SR 3 million and SR 2 million respectively.

The high level of expense associated with the modern irrigation systems (SR 120,000 - 400,000 each) gives a false expectation of increased productivity and of a high level of increase in the cultivated areas. In fact, a small farmer may increase his area of cultivation to 30 ha of wheat, at a fraction of the cost, by trebling the number of farm hands in the field and irrigating traditionally. The near total absence of the practice of traditional methods among the farmers in their wheat cultivating operations may indicate one or both of the following:

1. The element of prestige in the ownership of al-rashash may be operative among some of the farmers. This was

clearly seen in a number of cases. The farmers concerned did not even own the most basic agricultural machinery like harvesters and other needed ploughs, but the irrigation system was firmly installed on the well.

2. There is an element of underemployment or "concealed unemployment" in the farming operation. The farmers in the majority of cases are involved in other economic activities, and relied on their irrigation systems and recruited foreign labour in the agricultural side of the household economy. This point will be discussed further later in this chapter. Suffice it to say here, that all of the farmers said their role on the farm was as managers and supervisors and hardly involved physical labour, except for driving.
3. There are three factors that are operative in the case of the farmers in Sajir, which disposes them to choose the sophisticated agricultural machinery over intensive labour in the farm. These are:
 - A. The availability of loans on easy terms (interest free ten year repayment scheme) for the machinery from SAAB.
 - B. The high level of economic sense in acquiring this high technology, which makes it probable that the CPIS could pay for itself in wheat production (at the present price) about two years. The life cycle for CPIS, furthermore, is

about five to six years, which means 2 to 3 years of profitability.

- C. The desire to dispose of the need for farm hands and personal labour, which frees the farmers for other economic pursuits.

C. Farm Machinery

The number of machines on the farm was a better indicator than the CPIS of the size, degree of sophistication and the age of the farming operation (see table 6.11). There was a clear difference between the older farms (pre 1980) and the newly established ones (1980-1985). The older farms were better equipped with the necessary ploughs, harvesters and farm buildings.

Four of the newest farms (1984-1985) had no more than four agricultural implements (see table 6.11). These included the tractor, and two ploughs. Harvesters were not present, nor were balers and seed fertilizer drills. Irrigation systems, however, were installed in all the farms visited. The one new farm (operative in 1984), which also had ten agricultural implements, was owned individually by a civil servant from Riyadh, who cultivates 120 ha, and visits the farm during his free time.

The majority of farms (26) were fully equipped with all the necessary agricultural machinery (see list in section I of this

chapter). The number of machines owned by those interviewed ranged from 3 to 50. The one owning 50 machines was the largest cultivator and producer. 22 of the farms, however, owned between 9 and 14 items of machinery. There was a cut-off point, whereby all farms who had less than 9 pieces of machinery were small in terms of cultivation and output. The unavailable machinery is borrowed from neighbouring farms; except in the case of harvesters, which can be rented at a cost of SR 180-200 per hour depending on their capacity and size.

The interesting point shown in table 6.11 is that the group of farms in the 101 - 200 ha category tend to be better equipped than most of the other farms, especially the ones in the 201 - 300 ha category. This may be due to the tendency of the cultivators in the two larger categories to be later settlers than the ones in the 101 - 200 category. These farms will also be the subject of further examination when the farm output is looked at.

As seen above, the farmers are generally very well equipped as regards farm machinery. They, however, complained of the unavailability and high prices of agricultural machinery and spare parts. They were also dissatisfied with the services received from the agricultural companies based in Sajir. The mechanics and engineers were few, and slow in giving the services needed. There is also a very marked difference between the prices demanded in Sajir and the more urban areas. Most said that they would rather obtain the items from Riyadh, because the agents in Sajir raise the prices unreasonably and are not always efficient and competent.

The farmers interviewed were more complimentary as regards their own skills and knowledge. Most said that they have the necessary skills and experience to hand the sophisticated technology of their CPIS and other agricultural implements. All said that they learned by the example of neighbouring farms, whatever was not known to them. There were, however, very serious indications that there are major problems as regards the needed skills and experience.

For example, one household installed their irrigation system on their only well, which was situated too near to their home. This meant that the irrigation system could not rotate the full circle because the house obstructed its way. The expense involved in relocating either the system or their house discouraged them from effecting the necessary changes. In another case, the farmer had broken his irrigation system in two halves in his energetic effort at ploughing the field. He was at the time of the interview desperately seeking a buyer for his farm, and he told the researcher laughingly that he did not think that he has a future in agriculture.

Some farmers felt that they did not have the necessary knowledge and experience to act against the monopolies exercised by the agents for agricultural equipment in the area, whether national or foreign. Their lack of skill was confirmed by the MAW officials in Sajir. They reported that many of the major problems with the ordinary farmer's crops were due to their ignorance of the preventative methods against diseases, weeds, and grasses. Foreign skilled managers, and the more successful farmers, commented on some of the farming practices

of the local people. The CPISs for example were operated in incorrect ways, which may be more convenient but is very dangerous for the wheat crops. Some farmers choose a higher speed of movement for the irrigation systems, which reduces irrigation time and increases dampness, which in turn encourages weed and fungal growth.

4. Wage Labour

All of the farmers interviewed employed wage labour on their farms, with the number of farm employees ranging between 2 and 13. They were recruited from Egypt, Sudan, Pakistan, India and the Philippines. The Egyptians and Sudanese are preferred as herders and carers of the animals, while Pakistanis and Indians employed as farm labourers and drivers. The Phillipino workers are rare, but could be recruited for driving and mechanical work. The monthly wages for herders and labourers range between SR 550 and 700, depending on the country of origin and length of service with the employers. Drivers and mechanics command up to SR 1,000. These monthly wages (146 - 266 dollars) are easily affordable by the farmers in Sajir, especially when we consider the earnings received from the wheat crops.

The farm workers live mostly in small brick unpainted rooms at the farm. There is a minimum of furnishing in these rooms, and toilet facilities are rarely provided. Food and medical services are provided by the employer, but the working and living conditions are extremely bad. These workers are cut

off from any contact with the support network of their compatriots, which exists in the larger urban areas in Saudi Arabia. They do not have the small comforts of family life, nor any means of vocalizing their problems to any formal agency, either of their own or Saudi.

They rely, in most cases, on the goodness (or lack of it) of their employers. Very traditional farming families were observed to be on the whole, better employers of the foreign workers. The traditional values of hospitality, generosity and respect for males did much to relieve the difficulties of those workers. The daily hardships were, in part, only a reflection of the life-style of their employers, and the difficulty of adjusting to a strange and foreign environment.

By contrast, those who have lifestyles resembling those of the urban areas in Saudi Arabia became markedly divided from their employees (as regards living, eating and working facilities). The gap between the employers and employees (especially the labourers) contributes to a treatment of the foreign workers, which is based on the superiority of the nationals and the inferiority of the recruited labour.

The cheapness of the labour recruiting process for the farmers interviewed, especially of unskilled and poor foreign workers, disposed all categories of the farming operation to engage quite liberally in this process. This was indicated clearly in the data. In fact the largest employers of farm workers (13,12) were a 200 ha and a 90 ha farming operation. The very largest cultivator employed ten farm workers, who were

mostly labourers and drivers. The number of workers among the large cultivators (over 200 ha) ranged between 2 and 10 workers, while the 200 ha or less employed 2-13.

If we assume that what is locally regarded as a medium sized farm needed four farm workers ⁽⁹⁾ (two labourers, one driver, one animal carer), then we can safely infer that more than half of the number of medium sized farms are employing more wage labour than is needed.

The prevalence of labour saving machinery and technology gives rise to the false expectation of a considerable reduction in the number of agricultural workers. This process, however, was counteracted by the ease and cheapness of the recruitment of foreign agricultural workers. What resulted was an underemployment of national labour on the farm. They may get involved in the transporting of their produce to the market, but deem it unnecessary to perform manual labour on the farm, or with the animals. This will be discussed further in a later part of this chapter.

The tendency to have more workers than needed on the farm may be due to the following:

1. The foreign unskilled workers come to Saudi Arabia on a two year contract basis. The turnover of the workers is therefore very high. It may be highest among the agricultural workers because of their low pay and harder working conditions (no data is available regarding this matter). The locals in Sajir have

confirmed that it is very hard to keep and maintain the same labour force for a long time. Recruitment of a large number of workers raises the level of continuity, and ensures a reasonable number of workers at the farm when needed.

2. The farmers in Sajir are either employed or involved in other economic activities. Their farm workers are needed to cover for their own absence from the farm, as well as for other jobs such as alternative *commercial* activities and domestic needs. This was confirmed in some cases when the farmers said that the farm workers performed other functions, such as driving the family or working in grocery shops when needed.

5. Fruits, Vegetables and Other Crops

Table 6.12 show the output of crops in the region for 1979, which was obtained from the MAW office in Sajir ⁽¹⁰⁾. It shows that there has been a considerable variety in cultivation locally. The total cultivation area, however, was very small in comparison to the present cultivation area, mainly because of the traditional nature of the cultivation methods. The 1979 produce, nevertheless, was all marketed in the urban areas - except that alfalfa and water melon were in part exported to the other Gulf states.

The situation at present is markedly different. The wheat crop dominates in all farms and is alone responsible for the increased area of cultivation. Fruits, vegetables, dates and

TABLE 6.12MAIN CROPS OF THE REGION IN 1979

<u>CROP</u>	<u>OUTPUT</u>	<u>CULTIVATED AREA</u>
1) Water Melon	5 Million Pieces	200 ha
2) Wheat	3659 Tons	1053 ha
3) Tomatoes	2600 Tons	130 ha
4) Melon	500,000 Pieces	100 ha
5) Courgettes	2400 Tons)	180 ha
)	
6) Okra	300 Tons)	
7) Dates	600 Tons	24000 Date Palm Trees
8) Maize	320 Tons	100 ha
9) Alfalfa	For Household Use	30 ha

Source: Ministry of Agriculture, regional office in Sajir, 1979.

alfalfa may be produced in some farms, but they are not significant crops for the local farmers. The reason for this are the extremely low profitability (if any) of fruit and vegetable produce in the urban markets, and the lack of improvement in fruit and vegetable cultivation methods.

All but one of the farmers interviewed, who cultivated non-wheat crops in the past or at present, said that they did so according to their traditional ways. The area of cultivation, thus, ranged between 5 to 10 ha according to the availability of farm workers. One farmer had tried substituting wheat with water melons under a CPIS in one season and reported good results. In general, however, those who reported good produce and profits were very few.

The division among the farmers interviewed was as follows:

1. Fourteen farmers were producing no alternative crops. Eight out of those had stopped cultivating fruits and vegetables in their farms, and six have never cultivated alternative crops.
2. Four of the farmers produced fruits, vegetables and animal feeds in small amounts for household consumption.
3. Fifteen farmers produced alternative crops (water melon, tomatoes and other vegetables), but did not find them profitable, nor significant for their farming operation because of crop diseases, the labour

involved, marketing difficulties and water shortages.

4. Five farmers reported good profits on vegetables and fruit crops (water melon and tomatoes mainly). They complained of marketing difficulties, but were convinced that alternative cropping is significant for their farming operation.

The farmers who had considerable problems with their vegetables and fruit produce reported their output in truck loads or in tons. The type of truck which is commonly used by the farmers in Sajir usually carries a three ton load. The largest number of truck loads reported by a farmer was 100 loads of tomatoes, which might have been 300 tons. This is a considerable amount, considering the areas of cultivation (5-10 ha), as well as that the same farmer had produced 405 tons of wheat with three CPISs covering 30 ha each. This suggests that the farmer may not have been completely accurate in reporting the number of truck loads of tomatoes from his farm.

The same tendency existed with most of the other interviewed farmers, who cultivated vegetables and fruits. At first they were reluctant to give precise information, and when pressed gave approximate numbers of truck loads or tonnage. This makes an interesting contrast with their precise answers regarding the output of wheat cropping. It is also a reflection of the lack of importance of fruit and vegetables to the farming operation, and the absence of a modern marketing system (as in wheat) which makes precise knowledge of farm output easily accessible to the farmers.

The five farmers who were somewhat satisfied with their vegetables and fruit crops reported their output in monetary terms. The range of earnings for those five farmers in the three seasons (1983 to 1985) was from SR 300,000 down to SR 20,000. What was interesting was that the same farmer who received the highest amount in 1983 had the lowest amount in 1985 (SR 20,000).

The money received for fruit and vegetables, however, averaged about SR 50,000 amongst those farmers who profited from alternative crops. This is a considerable sum considering the losses experienced by others.

The variation between the experiences of the interviewed farmers and between farming seasons is in part a reflection of the considerable ecological difficulties involved in producing fruits in an arid zone like Saudi Arabia, with a cultivation method that is still largely traditional. It is also, on the other hand, a reflection of the distribution and marketing methods employed by the farmers themselves and existing in the Kingdom. These latter elements will be discussed next, as they relate to vegetables and fruits (tomatoes, water melons, okra, and other vegetable crops).

6. The Distribution and Marketing of Fruits and Vegetables
(11)

Once the farmer in Sajir has made a decision to plant summer crops, and has survived the problems that may affect his crops (diseases, labour and water shortages), he is faced with more difficult decisions regarding how and where distribution and

marketing takes place. Most farmer do not have the necessary number of vehicles and drivers to begin transportation to the markets. They therefore have to rent the time and the truck of a self-employed driver to begin the distribution and marketing process.

The rental of a truck costs the farmer approximately SR 300 per load. The cost may vary depending on the distances involved. The urban markets nearest the farmers (Riyadh, Buraidah, Aunaisah) may be less expensive in terms of cost of transportation, but they receive the largest amount of similar crops from the same and/or neighbouring regions. The farmer who saves on transportation costs is faced with stiffer competition and a reduction in prices offered for his produce. The extreme heat in the summer, and the rudimentary packing and transportation methods, in the majority of cases force the farmer to choose one of the nearest urban markets for fear of damaging his produce.

The trucks used for transportation are usually the small Toyota trucks, which are called locally Wanait. The water melons are loaded on these trucks carefully and covered with a canvas cloth, while the tomatoes and other vegetables are packed in small wooden boxes, stacked on a truck, and similarly covered. The driver - who may be the owner, or a wage labourer, or the farmer - takes the produce to the designated market.

Each farmer has dealings and an unwritten contract with a dalal (auctioneer) in the most frequented urban market.

Al-dalal receives the truck loads, records them, decides on the opening price of their contents, and then sends one of his employees to auction them off. Al-dalal's decision is based on the availability of similar produce (local or imported) in the market at that particular time, and the quality and size of the produce.

The auction is conducted in the open air, with the auctioneer standing on top of the truck and opening the bidding on the load. The buyers are retailers and distributors, who are locally based. Most of them do not have any storage facilities, nor do they have a sophisticated network of operation. They could be buying for their own shops, or distributing to a number of outlets. The truck loads are sometimes bought by two or three buyers, who divide the load between them.

The operation of al-dalal is a small private venture. He rents a small space in the vegetable and fruit wholesale market, and stocks items needed by the farmers such as fertilizers, seeds, and chemical sprays. He could also be a money lender to the farmers at times of need. He receives 2.5-5% of the price of each load, depending on the produce and the contract between him and his customers. The price of the truck loads is received and recorded by al-dalal, and at the end of the season the final accounts are settled.

Al dalal's role in the fruit and vegetable market is derived from the traditional marketing conditions existing in the Kingdom before modernisation (even the title is traditional).

Traditional marketing has not survived in many aspects of the agricultural market (dairy farming, poultry and meat), nor has it survived in other commodities (industrial, or consumer goods). It was operative in wheat and cereal marketing before the Grain Silo and Feed Mills organisation was established, but it is still maintained in this case.

Al-dalal in the fruit and vegetable wholesale market does not deal with the transportation of goods, nor does he employ drivers or vehicles available for rental. He may employ a number of people to help with the process of auctioneering, but he has no overhead expenses in relation to storage and distribution. His function closely resembles the function of small traders in villages and small urban markets, when approached by small producers to sell for them at a percentage. The money lending aspect of al-dalal's operation was also an aspect of traditional traders; and it is still practised in very traditional markets ⁽¹²⁾ (even in very large urban centres). It is for these reasons that the sale of truck loads must take place shortly after delivery, and al dalal profits by any sale, at any price.

There was great resentment, on the part of the farmers in Sajir, of al-dalal and the middlemen who auction and buy their produce. All said that they would rather auction and sell their produce themselves, but that was not possible for most of them, because of their lack of expertise and connections in the markets.

Some farmers, however, make great efforts to dispense with the

services of al-dalal, especially if the needed vehicles are available to them. Some said that they transport and auction their produce themselves. Their sons are sometimes taken out of school to help in the distribution efforts. The farmers who have to rent trucks, or cannot operate in this way, have no means of changing the distribution and marketing situation to their advantage.

The profitability of vegetables and fruits produced locally is dependent on the following factors:-

1. The market chosen: Some farmers, who reported good profits from their vegetables and fruits, said that they have distributed them further afield than Riyadh, Buraidah and Aunaisah. Some chose small urban markets, which were not frequented by imported produce, or other local producers. The prices received were higher, and justified the further expenses of transportation.
2. The ownership of the transportation vehicles: The farmers who owned their own trucks, employed their own drivers, or drove themselves said that they were able to reduce the expenses of marketing and receive reasonable profits, especially if they can bypass the al-dalal operation.
3. The time of the harvest: The farmers who planted and harvested earlier or later than is customary for fruit and vegetables, were able to avoid the rush of similar local produce and gained reasonable profits. This was

attributed also to how lucky the farmer is with his crops. The farmers who had problems with their crops (diseases, labour or water shortages) were unlikely to beat other producers to the market, even if they planted early. The most profitable vegetable and fruit producer in the sample (SR 300,000) said that he planted tomatoes early, and was extremely lucky with his crop. He was however, unsuccessful the next time he tried the same.

4. The degree of availability of similar imported produce:
The farmers were very bitter about the stiff competition they have to face from foreign imports. These imports are cheaply produced in the exporting countries. They are also better packed, and transported in refrigerated trucks. The end result for any similar local produce is either complete wastage, great loss, or a very low profit margin. The retailers and middle men either preferred the imported goods, or forced local producers to sell at very low prices. It was often said by farmers that the sale of a truck load was lower than the cost of the rental of the truck (SR300).

From the considerations stated above, it is clear that the marketing of vegetables, and fruit for an average farmer in Sajir is fraught with difficulties. The difficulties, however, do not start with the distribution, and marketing of the crops. There has not been any great development of the traditional methods of cultivation of these crops. The

farmers are beset with problems: diseases that could not be checked, damages, and labour and water shortages.

The questions arising from the survey of the above farmers are the following:

- 1 Why do not all farmers take advantage of all possible awareness of increasing the profitability of fruit and vegetable cropping?
- 2 Why do not they make a collective effort to combat the negative elements of the distribution and marketing methods?

The reasons for such shortcomings exhibited by most of the farmers interviewed may be due to the following:

- A The inexperience of the farmers involved in the agricultural activities operative now in Sajir, or in other regions like Sajir.
- B The lack of great incentive to improve the profitability of alternative crops, because of the present dependence on wheat as a source of good income for the farmers.
- C The marked disinterest in improving distribution and marketing on the part of the responsible agencies in the government (see chapter 4), which in turn reduced the incentive among the farmers themselves as regards creating an active lobby for their needs.

The farmers in Sajir may not be all totally new to agricultural production, but they are certainly very dependant on government grants and subsidies to create a modern agricultural operation. This dependency carries over to all areas of the agricultural economy including marketing.

The recency and abruptness of all the presently exhibited relations of production did not allow enough time for the development of the education, experience and attitudes needed by the farmers to work coherently and effectively for their own benefit. It must also not be forgotten that the majority of farmers are not solely dependent on agriculture as an income generating activity. The satisfaction within the household is increased by other wages, income and earnings.

The MAW extension office in Sajir offers some services which are designed to increase and develop the agricultural skills and knowledge needed by the farmers in the region. These services, however, are performed by foreign Arab recruits (from Egypt mainly), who have very little in common with these bedouin farmers. Their sincerity may not be questionable, but their ability to communicate with the farmers is impaired by the disparity of education, culture and experience. The offices themselves are too ill-equipped and under-staffed to deal with the problems in the region adequately.

The farmers in Sajir were well aware of their own problems, and sufficiently discouraged by the distribution and marketing system of vegetable and fruits from attempting to increase output, or attempt crop rotation on the farms. However, some

saw certain developments nationally in relation to green-house cultivation of fruit and vegetables, which presented possibilities for their future. The green houses have just been introduced into the country, and were beginning to spread among the most successful farmers nationally. They offer a cultivation method which is more productive throughout the year. They also lessen the need for water, and increase control over the environment and cropping. They do demand, on the other hand, greater management skills, higher investment and more skilled labour.

The marketing problems, however, are not going to be solved by the adoption of these technologically advanced cultivation methods. They must be looked at and remedied by the policy makers in Saudi Arabia, if they are serious about agricultural development in the Kingdom. The lack of concern may stem from simply an oversight in the haste to increase agricultural production in the Kingdom, or from the existing opposing interests (importers of agricultural goods, urban consumer demand, or traders of agricultural goods). These interests, however, must be weighed against overall development of the agricultural sector, and the need for a reasonable self sufficiency.

8. The Wheat Crop

Wheat cultivation is the centre of the activities of the farming operation in Sajir. Most of the farmers interviewed said that they were quite satisfied with the incomes they received, and relied on them to meet the annual repayments to

SAAB and the farm expenses. There was, nevertheless, a surprisingly large number of farms who experienced major problems with their wheat crops; which resulted sometimes in the complete loss of crop, or very low productivity.

The data obtained was for the cropping seasons of 1983, 1984 and 1985. Throughout these three seasons, 22 farmers experienced major problems, relating variously to: installation of the CPIS, water shortages, crop diseases, and frost damage. Those who did not report major problems had significant fluctuation in their yearly major output, which suggested that productivity was neither constant nor steadily improving.

One hectare in Saudi Arabia produces, on average, four tons of wheat. The very successful and technologically advanced wheat producing projects in the country were able to raise productivity to 7.5 tons per ha. The farmers interviewed in Sajir were not in all cases truthful in reporting the size of their cultivation area, either for fear of not meeting the Islamic requirement of complete utilization of granted land, or for some other reason (see beginning of section II of this chapter). The wheat output of their farms, however, was readily reported, because the precise weight of the produce has been recorded by the Grain, Silo and Feed Mill Organisation (GSFMO) when received from the farmers.

By comparing the output with the reported cultivated area, the most unrealistic data could be detected. For example, one farmer said that he cultivated all 400 hectares of his farm,

and wheat was the only crop he produced. In 1985, this farmer produced 150 tons, and did not report any problems with his wheat crop. The disparity between the average production of 400 ha (1600 tons) and the actual production showed that the farmer may not have been completely truthful in reporting his cultivation area.

Careful examination of the data provided by those who reported large cultivation areas and low production of wheat, without any mention of crop damages, showed that there are three possible cases of this kind. Those tended to be in the over 200 ha categories of cultivation. There is, however, no way of conclusively proving that the cultivation area is different than reported. It was therefore decided to include these farmers in the following analysis of crop productivity, while keeping in mind the possibility that the cultivation areas were exaggerated.

Other cases of disparity between actual and possible output were explained by the farmers as resulting from diseases, frost damage, weed grass growth and water shortages. The range of output amongst farmers for the three seasons 1983-84-85 varied between 0.5 and 2550 tons. The largest producer was also the largest cultivator and one of the largest landholders. The farmer who produced 0.5 ton in 1983 went on to produce 250 in 1985. The highest production of wheat in these seasons was mostly in 1985. Only three farms produced less in 1985 than in previous seasons. Two lost their wheat crop completely in 1985 and one produced 30 tons less than in 1983. The reasons for the increase in

production, however, were not due to better productivity, but to increased cultivated area and the installation of new irrigation systems. The fluctuation in productivity throughout the three years showed that there is no constant relationship between the cultivated areas and output. A farmer may have produced more in 1985 on four irrigation systems, but his productivity was better in 1984 on two irrigation systems.

Table 6.13 shows the size of cultivation and wheat output in 1985 for the farmer interviewed. The range of output for the four categories suggests that there is no direct relationship between the area of cultivation and the wheat output. In fact the "101-200" has produced on the whole better and more than the 201-300 ha category. There was, moreover, a considerable variation between the output of similarly sized cultivation areas. One farmer produced 100 tons on 200 ha, while another produced 1000 tons on the same number of hectares (see figure 6.1).

There was a significant and marked low productivity in most of the farms visited (see figure 6.2). Only three farms exceeded or reached the national average production of four tons per hectare. The first was a 200 ha cultivator and producer (5.0 tons/ha); the second was the largest cultivator and producer (also 4.8 tons/ha); and the third was a 10 ha traditional cultivator, whose irrigation system was not installed at planting time. The best average productivity (2.4 tons) was among the "101-200" ha category of farmers, and the worst among the "201-300" ha category (see table 6.14). This is

TABLE 6.13

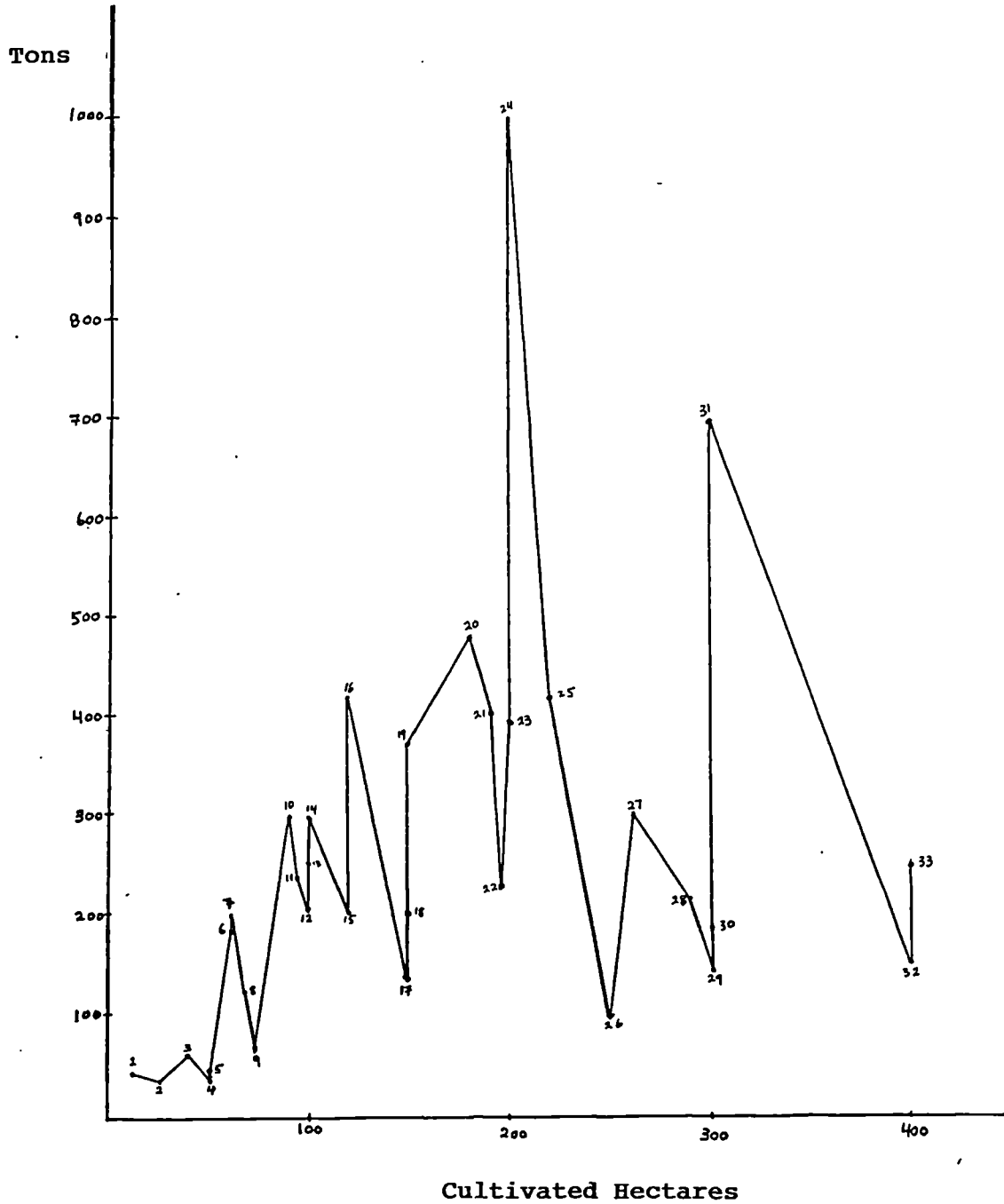
SIZE OF CULTIVATION AND WHEAT OUTPUT AMONGST THE
INTERVIEWED FARMERS IN 1985

	10 - 100 ha	101 - 200 ha	201 - 300 ha	Over 300 ha	All Cultivated Area
Range of wheat output in tons	(1) 0 - 300	130 - 1000	95 - 700	150 - 2550	0 - 2550
Number of Farms	(2) 18	10	7	3	38
Wheat production in tons	2164	3831	1895	2950	10840

(1) Two farmers lost their entire wheat crop in 1985.

(2) The two farmers who did not know the size of their cultivation area were included in the 25 - 100 ha category, because their wheat output and number of irrigation systems indicated a 60 ha or less cultivation area.

Wheat Output for the Farmers Interviewed



Excluded from graph: Two farmers who had zero output, two who did not know the number of cultivated hectares on the farm, and the largest cultivator and producer of wheat (2550 tons on 528 ha)

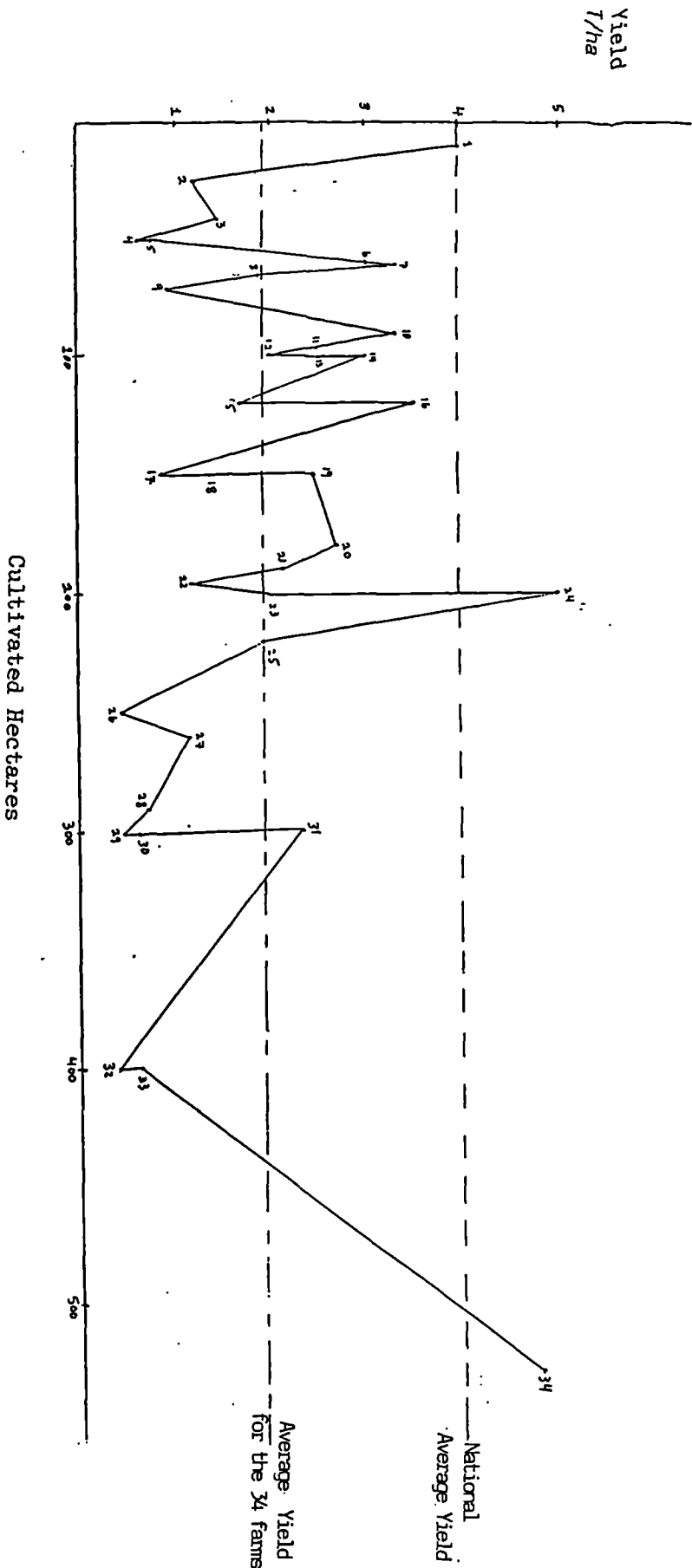


Figure 6.2

Wheat Yield (T/ha) for the Farmers Interviewed

surprising since both categories are considered medium sized farming operations by local standards. This may be due to some exaggeration of cultivated land among farmers in the "201-300" ha category (one suspected case of inaccurate information was in this category). It may also be due to the tendency among the farmers in this category to be recent settlers. This was also the case for two of the farmers in the "over 300 ha" category. Both were recent settlers, and both produced very little wheat on a cultivation area of 400 ha. Their productivity moreover, of 0.4 tons and 0.6 tons per hectare reduced the overall productivity in the category considerable. Productivity was more constant in the lower categories, and 24 of the farmers in all categories produced 2 tons per hectare or less (see table 6.14).

The money received for the wheat crop was substantial, considering the price paid for every kg. A ton of wheat since 1984 has been bought for SR 2,000, which was deemed satisfactory payment by 34 of the interviewed farmers. A large number of farmers said that they depended on the wheat price to cover expenses, repay the annual installments to SAAB and also have a reasonable profit margin. Incomes ranged between SR 60,000 and SR 3,000,000. 19 of the farmers received SR 400,000, which is SR 100,000 more than the highest yearly repayment to SAAB in the sample. The repayments will be discussed next, in relation to the credit obtained and the incomes received from wheat.

PRODUCTIVITY PER HECTARE IN 1985 AMONG THE
FARMERS INTERVIEWED

Category of Cultivation Area	10 - 100 ha	101 - 200 ha	201 - 300 ha	Over 300	For all Cultivation Area
Total Number of Hectares	1158	1629	1917	1328	6032
Wheat Production	2164	3831	1895	2950	10840
Average Tons per Hectare for Farms	1.9	2.4	1	2.2	1.8
Number of Farms	18	10	7	3	38
Range of Productivity Tons per ha	(1) 0 - 4	0.9 - 5	0.4 - 2.3	0.4 - 4.8	0 - 5
Number of Farms reaching 4 Tons per ha or more	1	1	0	1	3
Number of Farms Averaging 2 Tons per ha or less	11	5	6	2	24

(1) Two farmers in this category reported complete loss of wheat crop for this year.

9. Credit, Repayment, Expenses and Income

All the interviewed farmers had obtained credit from SAAB. The smallest loan was SR 273,000 and the highest was SR 3 million. Most of the credits obtained were medium term loans for machinery and well digging. All farms in Saudi Arabia are eligible for a SR 3 million credit facility if they fulfil the requirements of SAAB's lending code, namely: a) meeting all previous annual repayments and b) having a formal deed of ownership of the land. The credit obtained, however, preceded in the majority of cases the tightening up of SAAB's lending practices; which meant that some farms obtained large credit without actually meeting the present requirements. In fact, the largest receiver of credit (SR 3 million) did not have a formal and acceptable deed of ownership to his land.

The relatively older farms (before 1980) seemed to have obtained more credit than the more recently established farms. This is clearly seen in table 6.15 which shows agricultural credit and the cultivated hectares among the farmers. The larger categories, which contained the more recently settled bedouins, showed substantially less credit per hectare than the smaller categories. This was checked by looking at all the farmers who settled after 1975. All had obtained less than SR 0.5 million in credit from the agricultural bank.

Table 6.15 also shows that credit per hectare was highest amongst the category of small farms. It also shows that the credit per hectare decreased as the size of the farm grew.

AGRICULTURAL CREDIT AND THE CULTIVATED HECTARESAMONG THE INTERVIEWED FARMERS

Cultivation Area in Hectares

	10 - 100	101 - 200	201 - 300	Over 300	For Total Cultivated Area
Range of Credit obtained in SR Million	.27 - 2	.8 - 2.7	.45 - 2.3	1.5 - 3	.27 - 3
Number of Farms	(1) 17	10	7	3	37
Amount of Credit obtained in SR Million	15.66	13.7	10.9	6	46.26
Cultivated Ha	(2) (3) 1088	1629	1917	1328	5962
Agricultural Credit per Ha in SR	14,393	8,410	5,686	4,518	7759

(1) Data could not be obtained for 1 farm.

(2) Two farmers, who did not know the size of their cultivation area, were estimated to have 60 ha of cultivation each. So 120 ha were added on to the cultivated area.

(3) The 70 ha cultivation area for the one farmer who did not give details of credit from SAAB, were subtracted from the total cultivation area of this category.

This is partly because all farms obtained credit for the same machinery and items (well digging, engines, pumps, tractors, and harvesters).

None of the farms in the sample obtained credit under the "special project" category of loans, which may exceed SR 3 million and include all expenses for the reclamation of virgin land. Also the majority of farms (16 farms) owned 9-12 items of farm machinery (see table 6.11). These farms were divided almost equally between all categories of cultivation size.

The cost incurred by the farmers in their wheat producing operation was measured in Table 6.16 according to the locally obtained standard of SR 1.25 per kilogram of wheat for small farmers, SR 1.0 per killogram for medium farms, and SR 0.75 per killogram for large farms. This standard was confirmed by the local MAW officials, in the region. The farmers interviewed, however, were not in a position to give precise information about the cost involved in their wheat cultivation operation generally, *nor were they asked to detail their costs.*

In Table 6.16, wheat income was measured for the farms in each category of cultivation, taking into account the actual yearly repayments to the bank and the inferred cost of wheat cultivation. This shows some very interesting results:

1. The third category of cultivation (201-300 ha) did not correspond to the general trend of increased income per hectare, when cultivation increased. This may be due

TABLE 6.16

PRODUCTION, COST AND INCOME OF
THE FARMERS INTERVIEWED IN 1985

Cultivation Category	10 - 100 ha	101 - 200 ha	201 - 300 ha	Over 300 ha
Total Number of Hectares	1088	1629	1917	1328
Wheat Production in Tons	2164	3831	1895	2950
Average Productivity per Hectare	2	2.4	1	2.2
Price in SR	4,328,000	7,662,000	3,790,000	5,900,000
Expense in SR (1)	2,705,000	3,831,000	1,895,000	2,212,500
Repayment to SAAB in SR	1,494,000	1,440,000	1,038,000	600,000
Total Cost in SR	4,199,000	5,271,000	2,933,000	2,812,500
Income in SR	129,000	2,391,00	857,000	3,087,500
Number of Farms	17 (2)	10	7	3
Average Income per Hectare (SR)	119	1468	447	2325
Average Income per Farm (SR)	7,588	239,100	122,429	1,029,167

(1) Expense was calculated according to the local assumption of SR 1.25 per kg for small farms, SR1 per kg for medium farms and SR 0.75 per kg for large farms.

(2) The one farm whose credit data was not obtained was excluded from this table.

to the low productivity (one ton per hectare) for this group of farmers. Even the expense per hectare incurred by these farmers was lower than the expense for the "over 300 ha category". This again is a reflection of the recency of their settlement, and/or exaggeration in cultivation area.

Nonetheless, their average earnings per hectare were higher than the smallest category of cultivation.

2. The second category of cultivation showed the best productivity generally and had better income than the "10-100 ha" and "201-300 ha" categories. Their costs (repayments and expense per kg of wheat) were substantially higher than the two largest categories of cultivation (over 200 ha). Their better productivity, however, led to better incomes than the farmers in the first and third categories of cultivation. It must be pointed out here that one farmer, a 200 ha cultivator who produced 1000 tons of wheat, was partly responsible for the overall success of this category of cultivation, as well as the increased productivity (see graph 6.1)
3. The small farms category carried the highest burden of cost per hectare, and the least income per hectare. The average income per farm from wheat in this category does not equal a monthly wage of a civil servant of respectable standing in Saudi Arabia. Even if productivity increases in this category to the national

average of 4 tons per hectare (double the present average), their earnings would not allow them to expand, nor meet the high costs that might be incurred, because of problems in the water source, machinery or crops.

4. The fourth category of ownership showed the best income per hectare (nearly double the income of the "101-200 ha"), although productivity was not the best. The spectacular earnings per farm, however, were mainly due to the existence in this category of the largest cultivator and producer, who achieved a 4.8 ton per hectare yield on his farm. The other two 400 ha cultivators produced 150 and 250 tons respectively. Their productivity and earnings, in fact, closely resemble the farmers in the "201-300 ha" category. The potential income for this category, however, has been demonstrated by the largest producer and cultivator in the sample.

A comment may be pertinent here about the calculation of cost to the farmer in table 6.16. Repayments to SAAB were calculated as expenses, which apply only in the short run. In the long run, however, repayments are a form of capital investment in the farm's water systems and machinery. The justification of including them as expenses, at this point in time, is merely to discover whether or not the agricultural operation is capable at the present time of covering all the needed capital investments and costs of production. It must

be also remembered that the wheat price support is a transitory factor. If the government reduces or completely eliminates the present subsidy on the price of wheat, the majority of farms, especially the smaller ones, will not be able to meet their repayments, nor the usual cost involved in farming in this area. This will be especially true if no new factors appear on the scene (like improvement in the marketing and distribution of other crops, and/or new price support for different crops).

Wheat cropping among the farmers in Sajir seems to be profitable at present, even in the case of small farmers, who are able to meet their repayments to SAAB (capital investments). The profitability, however, increases to spectacular heights in the case of large cultivators, even for those who do not display efficiency or great effort in the agricultural operation (low productivity, shortfall in cultivation). Nonetheless, the farmers who have problems with their crops or with their water systems are in an unenviable situation, whereby they cannot meet the cost of next season's cropping, their yearly repayments, and the needed changes on the farms (e.g. a new well). This would be especially true of the smaller categories of cultivation, who do not have a) substantial alternative sources, and b) money saved from previous cropping seasons.

10. Hamlet Settlements and the More Recently Established Farms

Throughout the preceding discussion of the agricultural operation, the cultivation size has been used as the main variable in the analysis. The date of settlement and the establishment of the farm, however, have been used occasionally as explanatory factors. This is not because they play determining roles in the agricultural operation itself, but because they may influence the orientation of the household, as regards land utilisation and the emphasis placed on the agricultural operation.

In fact, it could be safely assumed that most of the farming operations in the region are new in the form that they are displaying at present. Modern agricultural machinery began to spread after the mid 1970s and the agricultural programme in the second development plan (1975-1980). The high technology of the central irrigation systems began to be used after 1979 and the wheat support policy, and it only became common in the region during the 1980s.

Even in terms of the establishment of farms in the region, we saw in section I of this chapter that the overwhelming majority of farms in the region (1200 - 1400) were established after 1979 (the number of farms for that year was enumerated at 500). The sedentary villagers in the region must have accounted for the majority of the already established farms, which means that bedouin farmers before that year were relatively few. Nonetheless, the hamlets of Sajir - which

tend to be more recently settled areas - display some interesting features which are in part just a clearer view of the settlement patterns in Sajir itself (especially as regards land distribution), and in other aspects relatively unique. This is because they combine a modern agricultural operation with a predominantly traditionally based livestock breeding operation.

Hamlets are formed by lineages or kinship units, which apply to the Amir of Sajir for a land donation (Iqta). The head of the lineage (also called Amir) or kinship group, after obtaining the land, either distributes it between the households of his lineage, or retains it for collective use if the kinship unit is small. The hamlets of Al-Tasrir (35 kilometres from Sajir's centre) and Al-Hobabyah are examples of the former case.

Al-Tasrir, inhabited by Al-Ghadhabin lineage (approximately 30 households), was established in 1970 through a grant from the Amir of Sajir to the Amir of the lineage. It is not precisely known how many hectares were distributed to the members of the lineage, but the Amir's household (three married brothers) is the largest landholder in the hamlet. It is also one of the largest landholding households, and the largest cultivator and producer of wheat in the study's sample (800 ha owned, 528 ha cultivated, 4.8 ton/ha yield).

In 1978 a kinship unit from Al-Ghadhabin applied to the Amir of Al-Tasrir for land to settle in. This unit, which included three separate households (each containing married brothers)

and headed by an elderly uncle, were given 100 ha on the outer edge of Al-Tasrir's boundaries. When their farm was visited in 1985, 50 hectares were cultivated for wheat, but their considerable animal holdings were an important economic concern of the family. Their herds of 400 head of sheep and 40 camels, however, were not larger than those of the Amir of Al-Tasrir (300 head of sheep, 60 camels, and 20 cattle), who had settled earlier. Despite the fact that they owned one CPIS and five farm machines, they considered themselves primarily pastoralists.

Al-Hobabyah hamlet display the same features. Three individuals from three separate households were interviewed in the hamlet, *which houses members of Al-Karashmah lineage*. The head of lineage owned 900 ha of land, of which 250 ha was cultivated. He also owned 300 head of sheep and 15 camels. Another member of Al-Karashmah, who still practises short distance pastoralism and whose farm was established in 1984, cultivated approximately 60 hectares of his land (*the total area of the farm was not known to this farmer*), and he owned 400 head of sheep and 14 camels. The third individual from Al-Hobabyah owned 246 ha of land of which 10 ha was cultivated, and owned 15 head of sheep. The latter case was exceptional in the sense that the farmer was an individual owner, who had joined the military in 1971, and who bought part of his land.

Another large hamlet, inhabited by Al-Hizman lineage of the Utaibah tribe is another interesting case. Although Al-Hizman came from the same sub-tribe as Al-Hanatish and the other

lineages in Sajir, they are not closely linked to it in terms of the earlier periods of settlement. In fact, this lineage had settled in another area in 1949, and only came to Sajir in 1975 because of its better prospects for farming. Subsequently, Al-Hizman acquired their land holdings through purchasing.

Al-Rajhyah, the Hizman's settlement, is the furthest hamlet from Sajir. Its members are primarily livestock breeders, with considerable animal wealth. Their Amir's household owned 1000 head of sheep, 150 camels, and 15 cows. Their cultivation area was reported at 400 ha, on a 900 ha landholding. Their wheat output, however, was very poor at 0.6 ton/ha yield. This is despite the fact that the agricultural operation was totally modernised with three central pivot irrigation systems, fourteen agricultural machines and ten farm workers. Their net income from wheat, nonetheless, was considerable at SR 162,500. The livestock breeding operation was a commercial venture with wage herders, but was mainly conducted in the traditional pastoral custom (herding and grazing patterns).

From the previously detailed cases, some common features can be distinguished. These are the following:

- 1) The Iqta system of land distribution encourages differentiation in landholdings between the members of the lineages concerned. The system favours those in politically superior positions in the traditional sense.

- 2) The date of settlement as such does not determine or define the degree of involvement or success in the agricultural operation. The Amir of Al-Tasrir attained substantial degree of success in wheat cultivation despite the fact that he and his lineage are recent settlers in Sajir (1970). His farm's performance and output surpassed the performance and output of those farms owned by older settlers in Sajir. The emphasis placed on wheat cultivation was also heavier than that placed by the Amir of Al-Rajhyah who settled in the 1940's.

The 5-8 years difference between the date of settlement, for the majority of the households discussed previously, *does not really account for the differences in the performance agriculturally speaking*, because most had similar opportunities to take advantage of the incentives offered by SAAB and the wheat price to construct a profitable agricultural operation.

- 3) Animal wealth, which is initially linked to the recency of the pastoral way of life, seems to also correspond later to the wealth or availability of large landholdings. The heads of the three hamlets discussed previously are cases in point.
- 4) The ownership of large animal wealth, either by new settlers or by wealthy land owners, can orient the household toward the maintenance and perpetuation of livestock breeding as an important source of income.

This, however, does not inhibit the formation of a modern agricultural operation, be it small or large, efficient or inefficient.

The above four points seem to reinforce the previously stated premise that the agricultural operation must be analysed independently from the "traditional" ideology of the bedouins. Livestock breeding on the other hand may persist despite a successful change to an agricultural economy, or the existence of the necessary elements for such transferal. The linkages observed in the hamlet settlements between livestock breeding, the persistence of the pastoral traditions, and land ownership will be closely analysed in the next chapter. Suffice it to say here that the ideology of pastoral nomadism exerts a stronger influence on the livestock breeding operation practised by the bedouin farmers in Sajir.

The farmers in Sajir displayed great enthusiasm and eagerness for modern agriculture, despite the limitations of their education, experience and knowledge of the modern sector. This may have been due to the lack of deeply rooted linkage to traditional agriculture, and/or the perceived profitability of the modern wheat farming operation.

Conclusion

The modern agricultural, wheat producing operation currently practised by the bedouin farmers in Sajir seems to suffer from all the classic features of agriculture in an arid zone. These include water problems, a high level of crop disease, soil deficiencies, and low productivity. We may add to this list of problems the low skill of the agricultural operators themselves, and the problems caused by an incoherent development programme for agriculture, exhibited mainly in lack of control over the water resources, unchecked expansion, a lack of development of the marketing and distribution system (including the lack of restriction on foreign imports), as well as the ineffective nature of the training and counselling services for the farmers.

The bedouin farmers themselves are hugely attracted to the farming operation by the need to own land, as well as the desire to profit from the wheat support programme. The conditions governing their settlement and participation in the agricultural sector are characterized by the following:

- 1) A system of land distribution that encourages differentiation, mainly through the Iqta system.
- 2) A collective utilization of land by the extended family. This may be satisfactory at the present time because it reduces water and land utilisation, but it may become a pressing problem in the future because of the Islamic laws of inheritance, and a gradual emphasis on individual ownership (as is the case for sedentary villages).

The future prospects for the more traditional of the farming households are therefore bleaker than for those who are more integrated into the relations of production of the nation at large. If collective utilization of land and water was universal in the region (or the nation), the profile of those traditional farmers would have been different.

- 3) Despite the apparent enthusiasm for agricultural production, the farmers maintain a multi-resource household economy. The other resources are more traditional (livestock breeding) for a group of farmers who are so inclined, either because of their recently settled state, or because of other reasons (discussed in the next chapter). Other resources also include employment in the National Guard in the civil service, and/or commercial activities. A great level of adaptability was displayed by most farmers.
- 4) The agricultural operation was marked by significant lack of the needed element of diversification of cropping. That is because the farmers only experience profit in the wheat cultivating operation. It is also marked by a dependency on foreign workers and the underemployment of the nationals on their farms. Low productivity is another major characteristic of the farming operation in Sajir.
- 5) Incomes from agriculture were highest among the largest cultivators mostly, and those who appeared to have larger experience of farming and a greater concentration on the farming operation.

The small operators (below 100 ha) were in the worst possible condition, as regards the ability to profit, reinvest in the farms, or manage through the expected difficulties (water shortages or crop diseases). This group of farmers will be the first casualty in any future development, whether ecologically or in the area of policy changes.

- 6) The whole system of agricultural production is characterised by wastage, and a concentration on maximum profit regardless of the cost to the water resource and land conditions. The larger producers seem to be the worst violators in this, by virtue of being the largest utilizers; but they are also the most likely to divert production into other areas (through green houses, dairy farming, and other agricultural projects), as well as the most likely to succeed in non farming activities.

The question that is posed at this point is: why bother with agricultural production if the nation's cost, in terms of natural resources and monetary expenses, is as high as this? The answer, I think, is that Saudi Arabia cannot afford to leave the agricultural sector in its previous state of stagnation. The advantages of investments by the nation at large, and by the farmers themselves, would have been maximised if a reasonable and coherent policy had been implemented from the start. The need for changed thinking about resource use, and the development of the rural economy, is urgent, if Saudi Arabia is to salvage something from this experience.

References and Footnotes

- 1) Ministry of Agriculture and Water regional office in Sajir, internal paper, 1979.
- 2) Al-Jazirah Newspaper, No 3721, 27/11/82.
- 3) Data obtained from Saudi Arabian Agricultural Bank regional office in Sajir, 1982.
- 4) Data obtained from Saudi Arabian Agricultural Bank regional office in Sajir, 1986.
- 5) Data obtained from Saudi Arabian Agricultural Bank regional office in Sajir, 1982.
- 6) "Large Projects" refers to new agricultural projects, obtaining credit from SAAB exceeding SR 3 million, on newly reclaimed land. The credit obtained includes all necessary items for production (water systems, machinery and construction).
- 7) The projects listed relate to the settlement of Sajir.
- 8) Based on discussion with local agricultural officials, and group meetings with some farmers of the region.
- 9) This assumption is also based on discussions with the local offices and farmers, who assured the researcher that four agricultural workers are quite sufficient for an average medium size farm, with an average number of animals (50 to 100 head of sheep).
- 10) It was compiled for a newspaper article in 1979. Unfortunately, no similar list exists for previous years, nor for subsequent years.
- 11) This discussion is based on a) a survey of Riyadh's whole sale vegetable and fruit market, done by an informant, and b) discussions with the farmers in Sajir.

Chapter Seven

Animal Wealth

Introduction

As seen before in the previous chapter, the bedouins of Sajir are predominantly multi resource people for whom farming is the major activity. Animal wealth as an economic resource, however, is an existing element that must be looked at and which can be tied in with the degree of sedentism of any settled or semi settled community. The numbers of livestock owned, the manner in which they are cared for, in addition to the degree of their relevance in the household economy are important factors for proper understanding of the patterns of settlement among Sajirs population, and the changes affecting their livelihood.

Animal wealth is a component of both the pastoral economy and the agricultural one. The difference between the two lies in the fact that animals are central for the pastoral existence, and as such the nomads are almost exclusively engaged in animal care. Short distance nomads and the settled bedouins would, therefore, be more inclined to regard animals as vital, or at the very least important to the household economy. The strong heritage of pastoralism among the settled communities, moreover, would incline them to retain some of the traditional patterns of caring and feeding methods.

In the past, nomads intent on settlement, in the majority of cases, preferred to keep what animals they still owned. They either entrusted them to relatives who were still pastoralists, or gave them to professional herders for a fee. Herders of this kind come usually from within the nomadic groups and seek to augment their incomes by taking additional herds with the help of hired hands or even slave labour (slavery was abolished in the early 1960s).

Other settlers, at different stages of the sedentarization process, either brought their animals with them to the settled state, or divorced themselves completely from livestock breeding through the adoption of another form of economic pursuit. How and why these decisions are reached is a focus of this chapter. A second concern is with the situation at present, and the means by which the target community, the settled bedouins of Sajir, deals with animal wealth. This will help to determine something about their sedentarized state, as well as something of their economic status.

Another concern of this chapter is to examine the previously stated assumption (above and in chapter six) that the livestock breeding operation among sedentarized bedouins tends to retain at present more of the traditional elements of pastoral nomadism, because of the strength of this heritage among the settlers (*unlike the agricultural operation*). This will be examined in the light of the increasing incomes of the bedouins, the increasing opportunities for economic diversification, and the education of this generation of bedouins and future ones.

The chapter will be divided into two sections. The first will deal with the factors affecting animal wealth generally, and the second will deal with the target population and the data derived from the interviews of the research sample.

SECTION I

1. Factors Affecting Animal Wealth

As seen before, the sedenterization process involves the nomad in a

series of decisions, some of which revolve around the animal wealth. At a very basic level, whether or not the nomad still possesses animals determines something about how to proceed in the route of sedentarization. If the nomad has lost his animals because of prolonged drought and/or a spreading disease, then his options are relatively clean cut. To rebuild an economically viable herd requires the accumulation of capital, and a lengthy period of time. The poor household without sufficient pastoral resources has to turn to other non-pastoral resources, which in most cases means settlement, either temporary or prolonged. An example of this would be the settlement of the Shrarat nomadic group of the northern region of Saudi Arabia, who by 1958 were suffering from the effects of a very long period of drought, which deprived them of the greater part of their livestock. The Saudi government, recognising their plight, established Wadi Sirhan agricultural project, which sought to transform the foundations of their subsistence through substituting agriculture for their pastoral activities. When the ecological conditions of the region returned to normal, most of the members of the Shararat nomadic group returned to the desert and pastoralism, although some preferred to move on to urban centres and to seek employment⁽¹⁾.

An impoverished pastoral household is unlikely to join other pastoral units for two reasons. First, most nomadic units of production in actuality can only support their members in their own ecological sphere⁽²⁾. To have other units joining it with no pastoral resources upsets the ratio between the number of animals and the number of people in each unit. Second, the economic calamities which may affect nomadic groups, either ecological or socially created, are regionally based, so in all probability all the pastoral communities are victims of them.

If the decision to settle is not directly connected to animal loss, then a further decision has to be made regarding those same animals. This involves the following choices:

A - Individual settlement versus settlement of the household or the group.

B - Holding on to animal wealth versus selling it off.

Those two choices are connected and are dependent on factors both from within the nomadic tribal structure and outside it. Some of these are the following:

1. INDUCEMENT FOR SETTLEMENT

These may be:

- (a) Ecological in nature.
- (b) Because of some political pressure.
- (c) Because of some changes in the nomads' perceptions and attitudes toward their economic and social status.

The changes of perceptions and attitudes come because of overall changes in the national economy that the pastoralist is a part of (see chapter 5).

2. ALTERNATIVE RESOURCES AVAILABLE:

A nomad who holds other resources outside the pastoral economy, or even who perceives himself able to acquire other means of resources, would act differently from one who is risking a great deal, or who may need some capital to begin a new economic activity.

3. THE TRIBE'S POSITION WITHIN THE NATIONAL SETTING:

The extent to which a nomad's tribe is sedentarized can influence his decision regarding his animals. The more nomadic the tribe, the greater probability that the animals would be kept in the desert. Two reasons account for this: a) herd composition (discussed below), and b) some other members of the lineage or clan would probably remain nomadic, which offers the settling nomad an opportunity to entrust his animals, or maybe his own family to the care of relatives or brother tribesmen.⁽³⁾

The more sedentarized the tribe, the less likely that herds would be kept in the desert. In this case, the position of the tribe within the national setting can be the most influential factor. This includes such aspects as (i) the tribe's status in relation to the power structure; (ii) any claims that they may have to certain resources, ie. land and water, and (iii) whether or not those claims are seen to be legitimate by the national state. A bedouin from a semi-nomadic tribe, who has an option to settle directly on farming land claimed or belonging to his own particular group, would be more disposed to retain all or most of his animals, as part of the farming enterprise.

4. HERD COMPOSITION

The composition of the animal herds also plays a significant part in the decision made by the nomad regarding what to do with the animals. The nomadic camel herders facing economic difficulties would be more inclined to leave behind their

animals, because camel herding requires a greater degree of mobility and spartial environment. On the other hand, pastoralists with mixed herds and whose primary dependence is on sheep herding can conceivably consider settlement without sacrificing too many of their animals, especially if they could depend on supplementary feeds or fodder.

5. THE ROUTE TO SETTLEMENT

Incorporated within the previous factors is a very important element on which a great deal rests. This involves the question of how and where the initial step towards settlement takes place. There are two routes:

First: The bedouin may take employment within the boundaries of the urban structure; in either the military institutions, or the civil service, or the urban based private sector. In these cases, the tendency amongst the Saudi bedouins was to undertake settlement individually. Members of the family, the lineage or the tribe were left behind to continue with their pastoral economic activities. Pastoral resources in those cases were spared and maintained, if not indefinitely then at least for a period.

This pattern of settlement has been practised since the 1940s, i.e. since the export of substantial quantities of oil from Saudi Arabia began to bring in greatly increased resources; and more particularly in the 1950s and the 1960s with the expansion of government services and administration (it should be noted that rural-urban migration was not unique to the bedouin community, but also included villagers and farmers).

The migration of the male labour force was instrumental in weakening further the pastoral economy. This happens through the following means: A) It reduces labour input, thus reducing productivity within the pastoral economy. B) It shifts the household's reliance on the pastoral economy to reliance on cash remittances from the group's sedentarized members. C) It acts as an incentive for reduced mobility, so the contact could be maintained with the migrating members of the family and tribal group. The reduction of mobility, in the long run, leads to the gradual transformation of the composition of the herd, because sheep herding is more suitable to short distance nomadism and semi-nomadism.

Success of the migrating members of any particular tribal group in their chosen field of employment, often leads to the gradual sedentarisation of their immediate sub-group (clan, lineage), if not the whole tribal group. That is because they serve as role models or a link to available resources; thus providing increased opportunities for employment, or better conditions of settlement to the remaining members of their group. It is commonplace to find some departments of the government and military institutions headed by a particular tribal member, and staffed by a large number of his own tribal group.

Second: The other pattern of settlement tends to be rurally based. This usually involves a move toward an agricultural economy, and starts by the acquisition of the resources needed for such a move, i.e. land and accessible water.

This pattern of settlement is usually undertaken collectively by a sub-tribal group or a whole group. Traditional community rights are mainly at play here; but also economic power, and the ability to wield political pressure, is notably successful in bringing about this type of settlement. A successful move to an agricultural economy, however, is not guaranteed to all the groups that take such a step, mainly because of the ecological factors and also because of the group's disposition towards such a move. A group's disposition is governed by (i) the state of their pastoral resources; (ii) any outside resources they possess (i.e. grants, or employment in the rurally based public sector, or the private sector); and (iii) their perception of their chances of success in an agricultural economy (i.e. the availability of water, good soil conditions, land for settlement, and the state of agriculture nationally. In particular, commitment to an agricultural economy is dependent on regional and agricultural conditions, since these define the pastoral conditions, as well as the availability of any outside of resources.

This type of settlement pattern offers the nomadic group a chance to retain their pastoral resources, but changes some of their behavioural patterns markedly. It is obviously a step that requires some past adaptation to such a move, especially in the herd composition and the degree of integration within the national setting ideologically or economically. Settlements of this kind have occurred throughout the history of Saudi Arabia. A prime example is the Ikhwan settlement scheme (Hujar Scheme) in the early years of the 20th century,

which continued to be undertaken even after the establishment of the Saudi State (1932). The quality of change, however, has not been always consistent among all groups. It may signify a change from one subsistence economy to another, into a mixed economy, or a modern economy.

2. A Brief Historical Account

As elaborated in an earlier section, the Saudi nomads in the early periods of sedentarization were largely camel herders whose life was transformed by the adoption of a strong religious ideology pushing them into a sedentary way of life. Sedentary life had its own rewards - ideologically, economically, and politically - and the nomads did not hesitate to forgo their animals for their convictions. In the period following the final defeat of the Ikhwan movement the herd composition among the Saudi nomads began to change considerably, and sheep-dominated herds began to be the most common pattern. This was brought about for two reasons. First, the state imposed laws curtailing some of the mechanics of the pastoral nomadic system, particularly that of the Dirah system (traditional land utilization). Secondly, a process of integration with the sedentary economy was encouraged by the opening up of other economic resources and the poor ecological conditions under which pastoralization faltered during the 1950s and the early 1960s.

What the above facilitated was a pattern of sedentarisation based on reduced mobility and a degree of sedentary integration. Semi-nomadic and short distance nomadic groups were the majority during the 1950s and the 1960s ⁽⁴⁾. Animal wealth in these times was reduced because of economic and ecological factors. Livestock, therefore, was not seen as

a hindrance to the continuing process of sedentarization. The availability of land for settlement, the huge size of the country and the limited nature of cultivation and agriculture were all favourable elements that disposed nomads towards keeping on the animals while proceeding towards sedentarism.

National economic development at the time was limited to urban areas, and the national workforce lacked the educational training and skill that is required to enter the modern economy. ⁽⁵⁾ Their services were nevertheless required in low skill work and military organisations. Rural-urban migration, therefore, involved only the males and heads of households of the rural sector. Incomes generated from wage labour (mostly military) were used to maintain a basically rural economy that had not yet experienced a marked change in its way of life. ⁽⁶⁾ Individual settlement (by undertaking wage employment) was prevalent, but did not involve as large a number of settlers as group settlement does. The latter continued to be the more significant general pattern, because tribal membership continued to be the basic criterion on which settlement of one group at one time and in a certain region was considered. This in turn was mainly due to political factors, and to the strength of the tribal social structure still felt all over the Kingdom.

Nomadic groups considering settlement or a degree of sedentarism, and continuing to hold some livestock wealth, in the the majority of cases preferred to hold on to their animals. This was because (a) they were still rurally based; (b) the rewards and advantages of settlement were not clear cut, and the nomads preferred to keep their options open; (c) there was still enough family labour to merit the continuation of a degree of pastoral economy; and (d) the rural economies remained

basically traditional, and there were no major obstacles to the grazing of animals over the vast uncultivated lands surrounding the areas of settlement. Migratory movement, moreover, was curtailed and kept at a short seasonal level (particularly during good rainy seasons).

In the more recent period of settlement, however, the rural economies were and still are experiencing great alteration in their basic structures. Especially affected was the agricultural sector, which received great attention during the latter 1970s. Some elements of economic development moved away from its traditional nature towards a more technologically based modern sector (see chapters 4 and 6). Traditional factors continued to affect it, but the change from a subsistence based economy to one based on free enterprise and capitalistic means of production was proceeding rapidly. This recent period was discussed more fully in the previous chapters (4 - 6).

3. Patterns of Pastoral and Non-Pastoral Production Among the Bedouins

The term bedouins was selected to describe tribal members who are or were engaged in pastoral activities, because bedouinism includes all types of economic activities practised by long range, short range, semi-settled and settled nomads. It also implies a definite tribal organisation and a common outlook. ⁽⁷⁾ The variance is limited to the economic activities practised and the type of habitat and housing conditions.

There are various patterns of production (pastoral and non pastoral) existing among the bedouins in country. These vary between the purely nomadic to the completely non-pastoral activities. They may be classified as follows:-

1. SUBSISTENCE LONG-DISTANCE PASTORAL NOMADISM: Groups who are practising this form of production are camel herding pastoral units, who are either completely unengaged in any alternative forms of production, or only marginally so. They are also involved in pastoral migratory movement throughout most of the year (camping during the summer months).

In 1964 Al-falali identified three tribes which have among their sections such long-distance pastoral nomads. These are Al-murrah, Shammer and Al-Dawasir. ⁽⁸⁾ Al-murrah are the most nomadic of all the tribes in Saudi Arabia. In fact they were dubbed "Nomads of the nomads" by Donald Cole in 1975. ⁽⁹⁾ The other two tribes have sedentary factions, as well as semi-nomadic ones.

Even the members of the most nomadic tribe in Saudi Arabia, the camel herders of Al-murrah, were increasingly becoming less nomadic in the 1970s: either by taking up wage labour, or by switching to more market oriented sheep and goat herding, ⁽¹⁰⁾ which allow them more flexibility to seek work outside the pastoral economy. Agriculture, which was hardly practised in the 1960s (except for date-palm gardening), became more common in the 1970s for these groups of bedouins. A study of the Saudi bedouin in 1978 showed that 53% of bedouins seen in the summer camps were either wholly or partially engaged in agricultural activities. ⁽¹¹⁾ Some of these bedouins were long-distance nomads. About 68 percent of these engaged in agriculture, however, reported that they produce only for domestic consumption. ⁽¹²⁾

The main feature of long-distance pastoralism is its dependence on

camel herding. All purely nomadic groups in the country who are reducing the degree of their nomadic activities need to lower their dependence on camel herding, or switch to other herds. (13) That is because camel herding signifies subsistence and extensive movement. Alternative herds (sheep, goat, and cattle) are more suitable for a more sedentary cash economy, because of their meat quality, care and grazing patterns.

The 1978 study, mentioned above, showed that the degree of nomadism correlated significantly with type of animals raised. (14) Long-distance nomads raised three times as many camels as the semi-nomadic groups. Even the size of the animal herds owned was on the whole less among the semi-nomadic.

Long distance camel herders are becoming more rare at present in the country, but they have not completely disappeared. In fact 18% of the bedouins interviewed by Ibrahim and Cole in 1978 were camel herders. They did however receive outside incomes such as pensions, wages for membership in the reserves of the military, and/or money from relatives in employment. (15)

2. THE SEMI-SETTLED, AND SHORT DISTANCE PASTORALISM: There is no clear classification of the variable patterns of activities within this category of pastoralism. The terms semi-settled and semi-nomadic are sometimes used interchangeably. The short distance nomads are also included in this intermediate stage between pastoral nomadism and the sedentary state. The main feature of the semi settled groups is a mixed household economy in which agriculture and/or wage labour are added to some form of pastoral activities.

Ibrahim and Cole did not make any distinction between short range nomads and the semi-settled in their study of bedouins in Saudi Arabia. (16) Both groups were shown to be more dependent on sheep and cattle herds and more involved in agricultural activities. Their agricultural production, however, was predominantly for domestic consumption. (17) The following features were identified by the two writers among the semi-settled groups, as regards the leftover characteristics of the pastoral nomadic legacy:

- A Animal raising: The types of animals raised either shifted to sheep or cattle instead of camels, or have been diversified to include all three.

- B Curtailed or occasional movement: The roaming of the bedouins has been greatly modified, either by confining it to a reduced area, or to make it occasional. This is done with an established home base, in which the people of the tribe reside, such as Hujar, villages or oases.

The majority of the tribes in Saudi Arabia were identified as semi-settled in 1964 by Al-felali. (18) This includes the Utaibah (from which the lineages under study come). They are mostly sheep herders, whose movement is confined to short-range pastoralism or occasional spring time outings. Most semi-settled tribes, however, may have sections that are sedentary or nomadic bedouins.

3. THE SETTLED BEDOUINS: There is a degree of confusion among some writers as regards the classification of some tribes (or sections of tribes) in Saudi Arabia, as bedouins. Historically speaking, there are mostly sedentary tribal people who were long established in farming

villages and communities. The trouble lies in the widespread nature of tribalism in most areas of the country, and the prestige attached to the "pure bloodline" of the tribals.

This picture is universally accepted by both the bedouin tribals and the sedentary ones; and it is strongly felt by the strict refusal of the tribals to intermarry with members of non tribal communities or families, even when they have higher economic or educational status.

The sedentary tribals would never identify themselves as bedouins vis-a-vis the settled bedouin community. The latter are generally thought of as rough, ignorant and aggressive, because of the recency of their incorporation within the national setting, the general lack of education and the low economic status of most of them. The sedentary tribals, nonetheless, emphasise their tribalism and "bedouin origins" vis-a-vis non tribals and non Arabs, to establish themselves as part of this respected cultural tradition.

The settled bedouins are members of pastoral nomadic tribes who are completely established in towns, hujar and villages. They may incorporate some of the pastoral legacy within their economic activities, especially if they are rurally based. Animal raising and movement may be incorporated to a limited degree within the household economy, along with agriculture and/or wage labour.

Lineages may incorporate both settled and semi-settled and short range nomads, as was observed among the lineage under study. The settled bedouins share with the non-settled a common outlook, culturally speaking, but differ in their habitat, housing, and the degree to which pastoral activities are emphasised in the household economy.

SECTION II

1 Animal Wealth Generally in Sajir

The region of Sajir is considered rich in the area of livestock breeding. An estimate of animal wealth in 1979, by the MAW regional office put the numbers of animals as follows:

140,000	sheep
8,500	camel
6,200	goats
1,500	cattle
7,500	chickens

A later estimate by the same office in 1984 put the numbers of sheep and camel herds owned by residents of Sajir, and the other villages and bedouins hijars surrounding it, at about 700,000 head of sheep and 30,000 camels. The increase in livestock in the region is due to a) natural increase in the already existing herds, b) the inclusion of livestock owned by the pastoralists, who are settling in the region, and c) increases due to newly purchased animals and newly established livestock operations. Despite the lack of precise data relating to the settlement of Sajir alone, It is clear that the bedouins in Sajir are predominantly sheep breeders, with significant ownership of camels. Sheep and camel breeding, however, is not constructed according to the modern models of animal farming, but follows the traditional methods of pastoral nomadism, despite some significant changes which will be examined later in this chapter.

There is some movement toward modern livestock breeding by residents of the region, which is exemplified by loans taken through the agricultural bank for the construction of sheep breeding operations on the farms of settled bedouins. These were six in number in 1983, four of which were obtained by residents of Sajir. The loans for these projects ranged between SR 2.8 to 5.2 million. None of these projects were visited by this researcher, because they were mostly under construction.

The animals on the farms are mostly kept in the open, as near to the farm buildings and/or the farmer's houses as possible. They are prevented from escaping by wire fencing, but there are no specific buildings or barns for special purposes in relation to the animals. The grazing pattern corresponds more to the set traditions of pastoralism, especially for the larger herds, and for the farmers who can bridge the gap between the needs of alternative economic activities (such as agriculture and employment), and grazing requirements. Wage herders, for example may take the herds into the desert for lengthy periods, or for the day, more particularly in the spring or during periods of rain. Even the animals that are kept on the farm throughout the year are grazed on the uncultivated areas of the farms, and have no specific fields for grazing.

Supplementary feeds and veterinary service are becoming increasingly utilized by the bedouins of the region, because they are respectively subsidised and provided free by the government. This is true even among the semi-settled and

short-range nomads of the region. Demand for animal care services, however, outstrips availability of qualified and trained personnel, according to the MOAW regional offices in Sajir. Transportation to remote pastoral communities is also a constant problem for the trained personnel.

The overwhelming majority of people in Sajir are settled bedouins, who are sedentary throughout the year, but still retain some of the animal raising aspect of pastoralism. Al-Hanatish lineage still has a number of households who remain short range nomads, roaming the desert pastures around their home base Sajir. According to their kin, however, it is only a matter of time before they settle completely, because the younger members of these households desire the sedentarised conditions.

2. Animal Wealth Among the Interviewed Bedouins:

Three elements were examined as regards animal wealth.

- A Nature and magnitude
- B Caring and feeding methods
- C Relationship between animal wealth and other economic and ideological factors.

A The Nature and Magnitude of Livestock Owned.

37 persons of the 38 interviewed owned livestock (see table 7.1). All were co-operative when asked about their number, except one who saw it as an invasion of his privacy, and

Table 7.1

The Division Among the Persons InterviewedAccording to Ownership of Livestock

Nature	Number of Persons
None	1
Sheep Only (1)	16
Sheep and Camel	18
Sheep, Camel and Cattle	3
Total	38

- (1) One person in this category refused to give details about livestock operation. He will be subsequently omitted from the coming 'Sheep Ownership' analysis.

merely reported that his livestock is sufficient for domestic use. That person will be omitted from the subsequent analysis of sheep ownership.

Cattle ownership among the interviewed bedouin appeared to be marginal, both in terms of numbers of individuals, and also in that it was merely incidental among large livestock owners, who depended mainly on their herds of sheep and camels. This reflects the relative unimportance of cattle on the national level among the farming communities, especially in the central region. Although dairy farming does exist on a large scale in Saudi Arabia, and has even reached self-sufficiency level, it seems to have originated from urban sectors as capital investment. For the above reasons, cattle ownership will be largely ignored in this analysis.

1. Sheep Ownership

A total of 37 individuals owned sheep as a major component of their livestock. The settled condition of bedouins favours the adoption of sheep herding as opposed to camel herding, because sheep are more adapted to reduced mobility as well as being easier when it comes to methods of caring and feeding. More importantly, the demand for their meat has always been greater among the settled Saudi Arabians. That demand has increased over the years, with population growth and better living conditions in rural areas as well as urban ones.

It was interesting for the researcher to note that most bedouins interviewed preferred to give, neat rounded numbers

when reporting the size of their sheep herds (rounded to the 50s or 100s). That suggested a lack of accuracy, either because they did not know the precise number of their sheep, or reflecting an element of exaggeration in reporting the size of the herd. The first stated possibility in this researcher's view is highly unlikely, because bedouins were more precise when reporting the size of their camel or cattle herds, even among large owners. The element of exaggeration was, however, substantiated in many instances. In some cases, individuals actually gave inaccurate information that was contradicted by another member of the family (One such was by a wife who was attending the interview, while others were by another member of the family prior to the interview or after it). Exaggeration of the number of animals owned could well be in order to present a favourable impression to the researcher and other persons present during the interview. Boasting of camel holdings was also a factor, but took another form and will be discussed in the relevant section.

2. Size and Market Value of Sheep Herds

A majority of 17, according to the data provided by those interviewed, owned between 100-200 head of sheep (see table 7.2). The price of sheep varies according to a) the breed, and b) the animals' size. The most valued variety of sheep is the Najdi one (called after the region of Najd) for both its meat quality and large size.

A Najdi head of sheep may reach up to SR 800, and is valued on average at SR 700 (about \$ 200). Other varieties averages at

TABLE 7.2DIVISION AMONG PERSONS ACCORDING TO NUMBER OF SHEEP OWNED

CATEGORY OF SHEEP OWNERSHIP	NUMBER OF PERSONS
25 or Less	3
26 - 50	7
51 - 100 (1)	8
101 - 200	11
201 - 300	4
301 - 400	2
Over 400	1
TOTAL	36

(1) Six individuals owned 100 head of sheep in this category.

SR 370 (\$ 105). The Sheep herds of the region are mostly composed of the Najdi variety, but for a conservative estimate this study will assume that the herds are composed of half Najdi sheep and the other half of different varieties of sheep. In this case a bedouin owning 200 head of sheep would be in possession of assets worth SR 107,000 (approximately \$ 30,570).

The Saudi bedouins, however, have tended in the past to retain their livestock holdings as fixed assets, and seldom do they market them in large quantities. Instead they only market during high market values (during Hadj when demand is very high), and/or when absolutely necessary.

3. Incentives for the Breeding of Sheep

24 Bedouin farmers interviewed owned 100 or more head of sheep, amounting to a capital of at least SR 53,500. The reasons given by those 24 individuals as regards maintaining livestock ranged from marketing only to domestic use only. One individual also gave his reason as being tradition. Owners of sheep herds of less than 100 all stated that they kept animals only for domestic use; except that here too, there was one (55 head of sheep), who stated that it is a tradition for him (see table 7.3)

In the majority of cases, as seen from table 7.3, animal wealth as regards sheep herds was maintained for both its marketing value and for domestic use. Ownership of less than 100 head of sheep does not seem to be regarded as substantial,

TABLE 7.3

DIVISION AMONG PERSONS INTERVIEWED ACCORDING TO CATEGORIES
OF OWNERSHIP AND THE STATED PURPOSE OF LIVESTOCK BREEDING

STATED PURPOSES OWNERSHIP CATEGORIES	DOMESTIC USE ONLY	MARKETING ONLY	TRADITIONAL ONLY	DOMESTIC AND MARKETING AND TRADITIONAL	DOMESTIC AND MARKETING	DOMESTIC AND TRADITION	MARKETING AND TRADITION	TOTAL
Less than 100 head of sheep	11		1	0	0	0	0	12
100 and more head of sheep	5	1	1	1	14	2	0	24
200 or more heads of sheep	3	1		1	5	1	0	11

and thus the households in this category maintain animals for domestic purposes only. Marketing was mentioned 16 times as a purpose for breeding among the '100 or more' category of owners, while domestic use was mentioned 18 times by the same category. Keeping in mind the considerable value of 100 herd of sheep, it seems puzzling that such a viewpoint should be taken.

In an effort to examine this further, the '200 or more' category of owners was looked at to determine something about what level of ownership signifies marketability to the animal owners. Even then, not all listed marketing as an incentive for animal breeding (see table 7.3). In fact three of the eleven owners maintained that domestic use was the sole reason for livestock breeding, one of whom owned 300 head of sheep and 60 head of camel.

The above mentioned individual is a member of the Amir of Al-Tasrir's household, one of the largest landowners in the sample, and the largest cultivator and producer. Their large farming enterprise (described fully in chapter 6) employs three animal herders, with no involvement of the members of the household in the caring and feeding operation. All livestock, moreover, is maintained within the farm's boundaries, which means that commercially obtained fodder is needed for the animals.

The sketching of this particular household is intended to demonstrate the contradiction between a highly commercial farming operation and an ambiguous livestock operation. The

management of the livestock breeding of this household followed a commercial pattern, but the purpose of breeding followed a traditional line. This pattern was never demonstrated in any of the agricultural operations observed, but was frequently seen with regard to livestock holdings. Without drawing any conclusions at this point, possible explanation of this could include the following:

- 1) The strength of the ideological and traditional heritage of pastoralism, still felt by the bedouin farmers.
- 2) The large size of the households, which in many cases include fathers, mothers, brothers, their wives and children, in addition to unmarried sisters. Collective ownership may appear substantial, but may seem less so if we consider the number of owners.
- 3) An element of exaggeration, which was demonstrated earlier, when reporting the size of herds.
- 4) The strength of domestic requirements by the household for animal meat and by-products.
- 5) High incomes generated from farming and other resources, which render livestock holding unimportant within the household economy.

4 Forms of Domestic Usage of Animals

Domestic usage of animals at present in the bedouin

households, indeed all rural households, relates mainly to the tradition of hospitality among Saudi Arabians, and specifically among the bedouins. Sheep are slaughtered regularly for visitors to the bedouin household. One sheep is enough for a small occasion, but the pattern is for two or more sheep to be served to the visitors. The perceived status of the visitor and his/her relation to the household determines the number of sheep slaughtered. The cooked heads of sheep are usually put in a position of prominence on the serving dishes, to demonstrate the hospitality of the household, and the degree of honour of the visitor(s). This form of usage for sheep meat was demonstrated clearly in Sajir. Sheep milk, however, is not offered to the visitors as frequently as camel milk (which is considered as a delicacy rarely enjoyed by non-bedouins). It can be used by the women to make a traditional snack called Iqqt, which is served with sweet tea or offered on its own. This snack is made by thickening the milk, shaping it into round thin slices, and then drying it under the sun. Although craved by some of the urban population, the demand for iqqt is falling because the hygienic conditions of preparation are perceived as bad. Iqqdh is not sold in Sajir, nor is it habitually served for visitors. If it is made, then it is usually for household consumption.

Sheep and camel wool, which was traditionally spun by the women for the making of rugs and tents, is no longer used by the bedouins of Sajir. There was no evidence to suggest that this traditional handicraft is still maintained by bedouin women in Sajir. Very old women knew the art of spinning and

weaving, but no longer practised it, nor were younger women taught this craft. The beautiful tent room dividers which are characteristic of the traditions of bedouins were rarely seen by this researcher, and when seen they were mostly heirlooms of the pastoral past.

Sheep meat and less frequently camel meat is mostly bought from the local market by the majority of the households visited, which suggests that the animals owned by the household are not kept for the daily need of the family members. The Hadj period, however, is a time when livestock can be important to the household. All muslims must offer religious sacrifice on a specific day during Hadj. The number of sheep slaughtered is a reflection of the economic status of the members of the household, and their religious inclination (rarely less than two). Rural households make a point of keeping sheep for such a purpose, and the commercially minded sell some of their animal stock at this time of high demand and high prices.

Domestic use, on the whole, appears to retain some of its importance as an incentive for maintaining livestock. It does not retain, however, all of the important aspects of the traditional usages (such as those for wool for spinning and weaving, or milk for drinking and cooking). The meat value, nevertheless, remains an important element in the domestic use of livestock.

5 Camel Ownership and the Value of Camel Herds

21 of the interviewed bedouins owned camels. The number of camels ranged between 1 and 150. Almost 80 percent (16 individuals) owned 20 camels or less (see table 7.4) The large owners of camels tended to be the settlers of the hamlets surrounding Sajir proper, where vast areas of uncultivated land are available. The ownership of camels does not appear to correspond to the date of settlement. The owners of the largest camel herd (150 head) settled in 1949. Another household (60 camels) settled in 1960, and yet another (40 camels) in 1978. On the other hand, a household that settled in 1980 owned only 14 head of camel. So the decline of camel ownership can not be linked to recency of settlement in the previous cases.

The high value of camels in the Saudi market - around SR 10,000, on average - makes the ownership of 20 camels an asset of considerable value. Camels, however, are not marketed widely in the Kingdom. Their meat is tough and requires a great deal of cooking, but their position as the major beast of burden in the past has been instrumental in evolving their image of being noble animals (not unlike the horse in western society). Breeds of camels are precisely known for their milk production, endurance, speed and other characteristics.

The narrow specialised market for camels, in which they are valued highly, is among the pastoral nomadic communities for whom the camel is a source of livelihood, and among the

TABLE 7.4

DIVISION AMONG PERSONS ACCORDING TO
NUMBERS OF CAMEL OWNED

CATEGORY	NUMBER
20 or Less	16
21 - 40	2
41 - 60	2
More than 60	1
TOTAL	21

princes and elites of the Saudi society who use them for racing. This has contributed to the rapid increase in the value of camels on the market ⁽¹⁹⁾. That, however, does not negate their relative unimportance in terms of meat quality and domestic uses in the national context. The maintenance of camel herds is also expensive in settled conditions, which does not explain the purpose for which they are kept.

The interviewed bedouins did not make any distinction between the incentives for breeding camels, and those generally stated for livestock breeding (see table 7.5). An interesting point, is that there was no greater reference to traditions among the large camel owners. Of six large owners of camel herds among the interviewed, only one stated that livestock breeding was because of traditions.

6 Relationship of the Ownership of Camels to the Ownership of Sheep

The data suggests that ownership of camels corresponds closely to the ownership of sheep (see table 7.6). That seems to be in terms of sheer number of animals, as well as numbers of persons in corresponding categories of ownership. For example, the owners of "less than 200 head of sheep", who numbered 25, owned between them 125 camels. The larger category of sheep owners "200 or more", and who numbered 11, owned between them 364 camels. If we look at the numbers of persons in each category, we will find that the persons in corresponding categories of ownership out-number the persons in differing categories of ownership.

TABLE 7.5

DIVISION AMONG CAMEL OWNERS ACCORDING TO THE
STATED PURPOSE OF LIVESTOCK BREEDING

STATED PURPOSE	NUMBER
Domestic Use	7
Marketing Only	1
It is a Tradition	0
All of the Above	0
Domestic Use and Marketing	11
Domestic Use and "It is a Tradition"	2
TOTAL	21

TABLE 7.6

THE RELATIONSHIP OF OWNERSHIP OF CAMEL AND SHEEP

CAMEL OWNERSHIP \ OWNERSHIP OF SHEEP	OWNERSHIP OF SHEEP		TOTAL PERSONS
	LESS THAN 200	200 OR MORE	
None	12	3	15
Less than 20	12	3	15
20 or more	1	5	6
Total Number of Persons	25	11	↓ 36
Total Number of Camels	125	364	▨

What this suggests is that the bedouins of Sajir do not tend to specialise in either sheep livestock or camel livestock. This is surprising, considering the fact that the Utaibah tribe is commonly held to be a semi-nomadic tribe, specialising in sheep grazing. It also suggests that there are other factors operating here, as regards the traditional values and the economic ability to pursue them. These will be considered at a later point in this chapter.

B The Care and Placement of Animals

Two elements were looked at: 1) the carers who perform the chores of herding, feeding and milking; 2) the grazing and accommodation patterns.

1 The Carers

In the majority of cases (29 out of 37) wage labour performed the chores of herding and milking (see table 7.7). This was the case even when the numbers of animals was small. In one case the householder owned only 15 head of sheep, but his farm labourers performed the chores necessary for their maintenance, in addition to their other duties.

Where the chores were performed by the family members, the carers were listed as the mother, father, wife and sons. In two of the five cases, the number of animals was small (15,22). The job was therefore easily handled by the women in the household, and did not involve any period of absence from the farm. The elderly members of the households (mothers and

TABLE 7.7

DIVISIONS AMONGST HOUSEHOLDS ACCORDING TO THE
CARER OF ANIMAL HERDS

CARER	NUMBER
Wage Labour	29
Wage Labour and Family Members	3
Family Members	5
TOTAL	37

fathers) also play a role as carers and supervisors of care; their skill and experience was employed in two of the five cases.

The one remaining case is an interesting one because it highlights some important issues. The householder in question stated emphatically that his sons performed the functions of carers. As a father of ten sons and daughters (from three wives), this seemed plausible; except that his herds were large by local standards (300 head of sheep and 5 camels). The sons, moreover, were all attending school, while the daughters were not. The grazing pattern of the animals, also involved all day grazing in the surrounding desert, and only being returned to the farm at night.

The interesting point here is that such a herd requires a labour input that could not be fully met if the carers have to attend school. The females of the family and/or hired farm labour, therefore, must participate in fulfilling the role of carers. The recency of settlement of this household (1977), and the small number of farm hands (two only), suggested that the farmer was reluctant to admit that his daughters were engaged in the grazing task. This was also generally observed during the interviews, whereby most farmers said that they would never allow their daughters to graze the animals for religious reasons, and in order to protect them from the dangers involved in long periods of absence from the farm.

Despite the fact that women traditionally were a major element of pastoral and agricultural production, in which they were

frequently absent from their homesteads (gathering wood, grazing animals, harvesting, and collecting water), Islamic principles discourage and prohibit contact between women and men who are not their close relatives. The sedentarization process, and the gradual integration of the bedouins within a very religious society, coupled with the economic ability to dispense with women's labour within the traditional structure (when replaced by hired labour) have all led to a situation whereby a man is not considered as doing his duty toward Islam or his women if he allows them to do such chores. The perceived danger of these chores, such as grazing which involves the unaccompanied absences from the home, is the development of illicit relationships, kidnapping, and rape. These happenings, however, are never publicly admitted because in all these forms they are tarnishing to the honour and reputation of the whole households.

In the eight cases in which family members were mentioned as carers, seven listed a female member of the family. Their chores however did not involve grazing, but only milking and feeding. Even then, oddly enough, the daughters were never directly listed by the head of the household. But when the mothers were questioned about their daughter's contribution to the caring and feeding of the animals in the household, it was clear that they do participate in this. Their contribution and duties were perhaps seen as an extension of their mother's duties and role within the household.

2 Placement of the Animals

The majority of the population of Sajir kept their animals exclusively within the boundaries of farms. This was also true of the interviewed bedouin farmers (see table 7.8). Of the nine cases who did not, four did not graze them very far from the place of settlement. These four households were settlers in hamlet settlements around Sajir, who enjoyed the spatial freedom of uncultivated land surrounding them. Three of them employed herders.

A further four cases kept their animals in the desert for prolonged periods. All of these employed herders (in three cases more than one). All had camel herds, but only two listed family members as joint carers. The remaining last case kept the animals mostly in the farm, but took them occasionally to the desert.

Some of the bedouins in the two last categories (table 7.8) said that they sometimes accompanied their herds to good grazing pastures in the spring, but that was strictly for recreational purposes. Only one household stayed with the animals at all times. This was a short-range tent dwelling pastoralist household, who were visited during the summer when camped near their homebase hamlet in Sajir. The eldest son of the family resided permanently in the settlement, with his own family and other members of the lineage. He also operated a farm owned collectively by all members of the extended family. The elderly father, who is not disposed towards settlement, managed the herds along with a younger son and other members

TABLE 7.8

DIVISION AMONGST HOUSEHOLDS ACCORDING TO THE
PLACEMENT OF ANIMAL HERDS

PLACE	NUMBER
Farm at all times	28
Farm mostly, occasionally in the desert	1
Farm at night, surrounding desert during day	4
Desert during winter and spring seasons	2
Desert at all times	2
TOTAL	37

of the household. The continued pattern of movement by the household, however, was curtailed and did not take them too far from the lineages settlement.

C The Relationship Between Animal Wealth, Land Ownership, Cultivation Size and Other Factors

The study's population are a group of settled or semi-settled nomads. Group migration and subsistence pastoralism are not elements in their behavioural pattern. Livestock appears to be an important economic resource, used both within the domestic economy of the household and as a commercial asset. Some of the factors affecting animal wealth are the following:

1. Land Ownership: The availability of the space needed for the accommodation and grazing requirements of large herds of sheep or camels may be linked to animal wealth among the farmers. Table 7.9 looks at the numbers of animals in four categories of land ownership. It shows that the numbers of animals increased dramatically in the over 300 ha category.

The numbers of animals (especially in camel herds) might have been less in the 5 - 100 ha category, were it not for the fact that just two farms accounted for 500 head of sheep and 70 camels. One of these households kept their animals in the desert throughout the year, while the other was a recently settled household (1978) in the hamlet of Al-Tasrir.

The two medium size farming categories (101 - 200 ha, and 201 - 300ha) had similar numbers of camels, but the number of

TABLE 7.9DIVISION OF SHEEP AND CAMELS BY LAND OWNERSHIPAMONGST THE INTERVIEWED FARMERS

CATEGORY OF LAND OWNERSHIP	DO NOT KNOW	25 - 100	101 - 200	201 - 300	OVER 300	TOTAL
Total Hectares Owned		746	1763 (1)	1909	1190	8608
Head of Sheep Owned	450	972	1620	705	2055	5802
Camels Owned	19	105	48	42	275	470
Number of Farms	2	10	11	7	7	37(1)

(1) One farmer in this category of ownership (135 ha) did not give data about animals owned.

sheep owned by the smaller one (101 -200 ha) was greater than than owned by the larger one (201 - 300 ha). This again may be due to just two farms owning 425 herd of sheep and 35 camels.

Despite the above limitation, the tendency is clear when we compare the smallest with the largest categories of land ownership. The largest owners of animals in all these categories are mostly residents of hamlets at the outer perimeters of Sajir, which means that they did not lack the space for the daily grazing of animals, either in the surrounding desert or on the uncultivated lands belonging to their settlement.

2. The Economic Status of the Household: Cultivation size, which was used in chapter 6 as the major indicator of economic status in the agricultural operation, has been shown to correspond to animal wealth among the bedouin farmers (see table 7.10). Again here the tendency is quite clear when the largest category of cultivation is compared with the three other categories.

The "201 - 300 ha" category, which showed very poor agricultural performance (see chapter 6), is again shown here to be in a better position as regards animal wealth. In fact, the ownership of camels in this category is less than that in the "101 - 200 ha" category, and similar to the smallest category "10 - 100 ha".

TABLE 7.10OWNERSHIP OF SHEEP AND CAMELS BY SIZE OF CULTIVATION

CATEGORY OF CULTIVATION	DO NOT KNOW	10 - 100	101 - 200	201 - 300	OVER 300	TOTAL
Hectares Cultivated		968(1)	1629	1917	1328	5842
Head of Sheep Owned	450	1667	1295	1040	1350	5802
Camels Owned	19	109	104	47	210	470
Number of Farms	2	15	10	7	3	37(1)
Average Number of Sheep per Farm	225	111	129	148	450	157
Average Number of Camels per Farm	9	7	10	7	70	13

(1) One farmer in this category of cultivation (70 ha.) did not give data regarding animals owned.

The two farms in the "do not know" category, who have been estimated to have 60 ha or less cultivation area (see chapter 6), are two households in which the pastoral experience is very strong (one settled in 1978, and the other is involved in short-range nomadism). This accounts for their better position as regards the average number of animals owned.

The strength and recency of the pastoral experience are naturally expected to have a major role in increasing animal wealth; but what was not expected is to find camel ownership prevalent among all categories of cultivation, even among "101 - 200 ha" farms which showed the best agricultural performance. This suggested that there are other factors operative here, which contribute to the increase in the ownership of camels (as well as sheep) despite the lack of a truly commercial incentive.

3. Ideological Elements: There is an element of prestige in the ownership of camels that was demonstrated frequently during the interviews. Bedouins who owned camels talked very proudly of them, and some invited the interviewer to visit the site on which they were grazed or kept.

The prestige stems from the high value of the animals on the market, and from the perception that camel ownership maintains a link to the not too distant past or pastoral nomadism. Nomadism is perceived as a noble system by both the bedouins and the wider popular culture. They would often insist, during interviews conducted in modern villas, that they are still truly bedouin and substantiate these statements by referring to their camel holdings.

Question 68 of the interview brought out this aspect most clearly. Individuals, in a significant number of cases, included 'bedouin' in their definition of themselves. They also preferred the word morzaraa (agriculturalist) to Fallah (peasant farmer), and businessman to 'merchant'. This appears at first glance a contradiction, because the term bedouin (in its popular usage) negates modernity. The individuals interviewed, however, wished to reaffirm their link to the tribal structure, which is a major component of the dominant ideology, as well as to the political power structure.

These elements, the economic and ideological, compete for realization in the attitudes and behavioural patterns of the population of Sajir. There are strong indications for the economic perspective as it relates to animal wealth at present, such as its relationship to landownership, cultivation size and the pastoral commercialisation of livestock. The ideological and traditional elements are also strongly indicated, by the general attribution of camel and sheep ownership to traditional and domestic uses, and the marked reluctance to abandon this aspect of their traditional economy.

Both, however, stop short of being completely realized. At the economic level, the data indicates that the population of Sajir do not operate at a fully commercialised level when it comes to their animal herds. This is indicated by their reluctance to commit livestock to the market. It is also

indicated by the high incidence of camel breeding, which may represent a substantial asset, but in fact represents potential capital being withheld from other more dynamic elements of the economic system. Even when commercialisation is present, full exploitation of the livestock resources (by-products) is not attempted.

At the other level (traditional ideology), the same holds true. The rationality of the traditional bedouin pattern is not fully realised. This is indicated by the shrinkage of domestic usages, and the marked withdrawal of family labour from the management of this resource. The traditional aspect of livestock breeding was only mentioned five times by individuals, when asked about the purpose of animal breeding. This may be because there is an awareness among the population that traditions are no longer practised, so they refrained from mentioning them.

The crucial fact here is that the population of Sajir can afford to indulge themselves at both levels, the economic and the ideological. The animal herds can be kept without the full realisation of their potential in either the modern commercial sense or the traditional sense. This is due to the following:

1. The agricultural operation has been generously subsidised and supported since the start of the agricultural development programme in the mid 1970s. Substantial incomes are also generated from wheat

cropping (the major crop in the region at present), and agricultural credit had been quite easily obtained for the establishment of farms by the bedouin population.

This eliminated the need to either specialise or convert the livestock capital into an agricultural one. It also encouraged the farmers, especially the successful ones, to convert some of their agricultural profits into livestock holdings.

2. Animal herds were subsidised until 1979 (see chapter 4). Feeds and fodder, moreover, are still subsidised, which reduces the expenses involved in the upkeep of animals in the settled state.
3. The availability of recruitable cheap foreign labour at low monthly wages (SR 500 - 700), in both the agricultural operation and the livestock operation, reduced or perhaps eliminated the competition for family labour between those two systems. The farmers can conveniently engage in both, without experiencing difficulties or dividing their time between the desert and the agricultural settlement.
4. Spatial considerations, important for livestock (especially camels) are not a problem for the bedouins of Sajir, because the land distribution system (Iqta) offered them an opportunity for large landholdings, such as are not available for other bedouins with no

traditional rights to settlement. Al Nafoud desert, moreover, is adjacent to the region, which offers the pastorally minded farmers an important grazing ground for animals.

5. As was seen in the previous chapter, most of the interviewed bedouins had alternative economic resources (various forms of employment and/or commercial ventures), in addition to agriculture and animal holdings. These resources distance the bedouins from pastoralism, on the one hand, but they also encourage wealthy households to invest more in livestock holdings. The ownership of animals and the new patterns of their management maintain the link with the most desirable elements of the bedouin past, without jeopardising any of the other economic subsystems, particularly as regards behavioural requirements.

Conclusion

Animal wealth was examined in detail because it is an important economic aspect for Saudi bedouins in general, as well as for those in Sajir. Livestock holdings, as was seen in the beginning of section II of this chapter, are considerable in the region. They may also gain in importance, if the present trend for modern sheep farming continues. This trend is demonstrated by the six sheep rearing projects which were under construction during the period of the field work in the region.

The importance of livestock to the farmers in Sajir can be reasonably

assumed to be a legacy of their pastoral way of life. This importance was substantial, as is clear from direct observation, as well as in the data from the interviews. Whether or not this affects their commitment to sedentarism and the agricultural operation is an issue to be examined through the data provided by the chapter.

Another concern was to look at the extent to which the traditional aspects of pastoralism influence the present patterns in the livestock breeding operation, and its relationship to other subsystems of production existing within the household. For instance, how important a role does it play in the determining the behavioural pattern of the household, and what are the needs for animals and their by-products in the domestic economy?

In the majority of cases, the persons interviewed behaved like sedentary farmers regarding their livestock holdings, but felt like pastoralists to themselves. Their absorption in the market economy of the sedentary state was clearly exhibited by their greater dependence and involvement in other economic resources, like employment and/or the agricultural operation. The livestock operation did not seem to influence either their behavioural pattern or any other concrete elements of the household economy.

The evidence also shows that the bedouins have, to a great extent, abandoned the traditional elements of the pastoral existence. Family labour, for example, has been withdrawn from the livestock breeding operation, and the various forms of domestic uses for the animals and their by products have been neglected (except for meat). Subsistence,

and the movement of the household alike, moreover, are largely forgotten by the bedouins of Sajir. In fact, the only remnants of the traditional way of life are the tendency to keep animals in large numbers, and to hold them as fixed assets.

The above, however, does not define the present methods of livestock breeding as modern. The bedouins in Sajir, at present, are in a curious position. While pastoral labour has been transferred to hired hands, and the economic rationality of the traditional system has been largely abandoned, modern methods and full commercialisation have not been adopted. The co-existence of these elements is encouraged by a) the wealth and increased incomes of the bedouin households, and b) the subsidised agricultural operation. The first element encourages the more wealthy to maintain livestock without any concentrated effort for further development, while the second encourages the more pastoralist of the bedouin households to enter into an agricultural economy, and be like sedentary farmers and bedouins in the management of their livestock.

Another element, which will be discussed more fully in the next chapter, is the perception of some bedouins that animal wealth is a facet of their economic system that ensures their future, in case of a decline in the agricultural one, and/or other means of livelihood. This is of course due to the considerable difficulties encountered in wheat cultivation, and the obstacles facing the diversification of the agricultural operation.

Whether or not this perception of livestock breeding as an "open option" is in fact capable of reducing the ill effects of any setbacks

for the households most at risk is a question that would need further elaboration, and a more comprehensive look at the households in operation. It is clear, however, that the "open option" applies more frequently in the economically successful households, who can afford to invest more capital in animal wealth, and pay the expenses of keeping them in settled conditions.

Meanwhile, a valuable skill and expertise is being lost to a future generation of Saudi Arabians. The adoption of foreign labour as hired carers and herders, the withdrawal of the family's labour, and the negligence of the traditional crafts and skills may lead in the future to the unviability of the "open option."

References and Footnotes

- 1) Fabietti, U, op. cit, p.191
- 2) See Tapper, R, "The Organisation of Nomadic Communities", in Pastoral Production and Society, op.cit, P.59. Tapper relates the size of a nomadic community to the resource available and the optimal size for a vengeance group.
- 3) Aronson, D, "Must Nomads Settle? Some notes towards Policy on the Future of Pastoralism.", in Salzman, P (ed) When Nomad Settle, op.cit, P. 177. Also Cole, D, Nomads of the Nomads, op.cit, P 53.
- 4) Falalli, M, The Project for the Sedentarization of Bedouin Group in Saudi Arabia (in Arabic), International Labour Office, 1964, Chapter 3, P. 54-74.
- 5) Birk, J, and Sinclair, C, "The Domestic Political Economy of Development in Saudi Arabia", op.cit, P. 202.
- 6) See Cole, D, "The Enmeshment of Nomads in Saudi Arabian Society", in Nelson, C (ed), The Desert and the Sown, op.cit, P 123-126. Cole describes the Saudi nomad involvement in military employment (through the National Guard) as an important source of income to the nomadic unit. It may involve a high percentage of the men in the bedouin community, without affecting the herding activities of the nomadic group. See also Birk, J, and Sinclair, C, op.cit, P. 204.
- 7) Ibrahim, S, and Cole, D, Saudi Arabian Bedouin, Cairo Papers in Social Science, First Volume, Fifth monograph, 1978, P. 45.
- 8) Falalli, M, op. cit, P. 61, 63, 70.
- 9) Cole, D, Nomad of the Nomads, op. cit.
- 10) Ibid, P. 153, 154.
- 11) Ibrahim, S, and Cole, D, op. cit, P. 24.
- 12) Ibid, P.25.
- 13) Ibid, P.32.
- 14) Ibid.
- 15) Ibid. P.43.
- 16) Ibid, P. 32.
- 17) Ibid, P. 42.
- 18) Falalli, M, op. cit, P. 54 - 74.
- 19) See Ibrahim, S, and Cole, D, op. cit, P 22, 23. The authors reported that large-scale purchase of camels began around 1969, with the first camel races held in Malaz in Riyadh and has increased significantly since then. They stated that the prices of fine pure-bred camels average between SR 15,000 to SR 20,000 in Saudi Arabia.

Chapter Eight

Selected Features of the Socio-Economic System

Introduction

The bedouins and pastoralists are often perceived as diametrically opposed to sedentary farmers and an agricultural way of life. This is so, both in the classical anthropological literature, and in the public image of bedouins in Saudi Arabia. This chapter will explore first the means through which the images of nomads and bedouins become possible in the literature, and in the popular culture of Saudi Arabia. It will also examine how these images affected the study of the sedentarization process, especially in agricultural settlements.

The latter part of the first section will explore 'bedouinism' as a concept and a practice in the Saudi society at present, and how it relates to the ideology and socio-economic system of pastoral nomadism. The emphasis will be on whether or not 'bedouinism' at present still retains the political and economic elements identified with pastoral nomadism, and in what way do Saudi bedouins conform to this system.

The second section will concentrate on the data from the interviews with the bedouins in Sajir. Its central concern will be the effect of the legacy of bedouinism on the perceptions, self identification and attitudes of the farmers, and also on their commitment to a farming livelihood. The central point of the analysis will be the farming aspect of the lives of the bedouins interviewed.

Two further elements will be discussed briefly in Section II: A) Women's position in this society, and how it relates to the traditional legacy; and B) a comparative study of how 23 sedentary farmers responded to the same section of the questionnaire (relating to perceptions and attitudes).

This will hopefully allow us to pass judgement on how far the pastoral bedouin ideology and way of life could be related to the actual current practices of the bedouin farmers, and determine whether these traditional aspects are visible in the interviewed bedouins' own perceptions, attitudes and commitment to the farming operations.

SECTION I - THEORETICAL ISSUES**1) Images of Pastoral Nomadism**

Pastoral nomadism is often perceived as a distinctive social order, which sets it conceptually apart from sedentary or peasant society (1). The differentiation between peasant societies and pastoral nomadic societies rests on the differences in economic adaptation, and the strength of the political organisation of the segmentary lineage system. Specifically, the three elements characterising pastoral nomads and which give rise to the differentiation between them and sedentary societies are said to be the following:

- 1) A subsistence economy in which animals (rather than lands) are the primary economic concern of the nomads.
- 2) The political-ideological system of segmentation, on which the integration of most pastoral nomadic society rests, and which is perceived as being characterised by an equality between the segments (see chapter 1).
- 3) The ecological adaptation of mobility which allows nomadic society to move with their capital (animals) whenever threatened or whenever the need arises.

Connected to these perceptions of pastoral nomadism are other perceptions of the social and economic order. These are that it tends to be more egalitarian, independent and economically homogenous, than sedentary. The images of the nomads also include that of hostile,

mobile, and warlike societies, who have been (historically speaking) the invaders of subjugators of peasant societies.

Clearly then, the central issues involved in the comparisons between nomadic and sedentary society are focussed on:

- 1 - Animals versus land.
- 2 - Mobile conditions versus stationary ones
- 3 - Political independence versus political subjugation

The first issue involves a characterisation of the livestock capital as highly volatile ⁽³⁾. Herds can be built up fairly quickly (by reproduction) and can be decimated even more rapidly (through droughts and diseases). By this characterisation two images of the nomadic economic structure emerge:

- 1) Under good conditions pastoral nomadism is capable of great buoyancy and a high level of surplus production, unmatched in peasant societies. This situation leads the pastoral nomadic societies to a position of dominance over sedentary ones, which finds expression in structures of subjugation and political domination.
- 2) The nomadic groups, their animals and their ecological resources are interconnected by the delicate balance of nature, in which herd size, the number of people it supports, and the ecological environment are mutually dependent. This gives rise to the levelling effect by which the groups remain economically homogeneous. Deviations from this accepted structure are explained by

the effects of outside agents (such as military conquests, or involvement in non pastoral political and economic structures) on nomads. Other forms of the levelling effect are (1) the dropping out of poor nomads into an agricultural livelihood; and (2) the conversion of the capital owned by rich nomads into land.

Two other characterizations of the nomadic capital (i.e. animals) are said to bring about further differentiation between nomadic and sedentary groups. These are the following:

- 1) Animals are essentially vulnerable to theft ⁽⁴⁾. This creates a need to develop a highly militarised social order, in which protection- and hence aggression - are dominant themes.
- 2) Animal grazing is linked to movement, which makes nomadic pastoralism generally less routinised than peasant agriculture. *The herders, moreover, estimate the probability of obtaining grass and water, on a seasonal or daily basis. This creates a need for flexibility, whereby the group may disperse with each small unit acting separately, and aggregate periodically.*

The need for protection from outsiders (other nomadic units or sedentaries) and autonomy in pastoral nomadic societies is fulfilled by the segmentary lineage system, wherein smaller units are free to exercise individual decision making, while assured of the provision of mutual protection. The individual independent household is linked to

an ever larger structure until a major section of the social universe is incorporated ⁽⁵⁾. This provides the flexibility and military readiness of the nomadic societies.

From the above characterisation of the nomads' economic and political order and their mobility comes the perception of them as having greater immunity to subjugation by central governments, and greater capacity for imposing structures of domination over sedentary villages and settlements (through taxation and payments for protection). The segmentary lineage system, moreover, is often perceived as being uniquely suited to pastoral nomadism because the segments are essentially politically equal. This reinforces the idea of the whole system as egalitarian and economically homogenous.

2) Criticism of the Classical Image

Needless to say, the above classical and stereotypical images of pastoral nomadism have been the subject of close scrutiny by anthropological and sociological research, which has left most of the accepted assumptions practically shattered. Theoretical challenges include the following:

- 1) The validity of conceptualising pastoral nomadism as a social order ⁽⁷⁾ or mode of production distinctive from sedentary social orders. Pastoralists and peasants must be seen as sharing the common element of production for subsistence. Concentration on the attributes of animal husbandry and spatial movement reduces the analysis to the level of the technicality of production.

- 2) A theoretical distinction must be made between aboriginal social groups, and historically determinate populations which interact systematically with other societies. Most studied nomadic societies are of this second kind ⁽⁸⁾. Economic constraints in the latter groups cannot be equated with natural or ecological constraints, but are dependent on the combined effect of the social conditions which facilitate or inhibit systematic production, the appropriation of resources and the accumulation of surplus. In other words, the applied practice of livestock husbandry cannot give all the clues to the articulation and transformation of the social system. ⁽⁹⁾
- 3) The segmentary lineage system cannot be seen as uniquely suited to pastoral nomadism, nor leading to a tendency for egalitarianism (in combination with the system of animal raising). Empirical data and theoretical investigation have thus established that there is no social form common to all pastoral nomadic societies, and none that is peculiar to them ⁽¹¹⁾. The danger of the category of "nomadism" becoming analytically sterile prompted anthropologists to pursue two options:
- 1) To fasten on the ideological and cultural features held to be common to all nomadic societies according to some anthropological accounts.
 - 2) To insist that the two elements composing the concept of nomadism - namely (1) pastoralism as a productive system, and (2) residence in mobile and fluid groups - should be studied separately in their differing

implications (12).

The first option has an inherent implication of polarising the nomads and the sedentaries. The ideological and cultural traits of nomadism are seen as the opposite of those in peasant society. The cultural traits of pastoralists - namely, lack of interest in fixed property and fixed resources, and the nomads' dependence on unimproved natural environment - are seen as represented symbolically in the nomad's tents, their migration, their animals, and other valuables. (13). Settlement, in this framework, means a radical transformation of the society.

This option is, however, rejected by anthropologists concerned with the pastoralists among Middle Eastern populations. Tent dwelling and stock rearing are not imbued with central meaning in these societies; in which on the contrary nomadic pastoralism is a multi resource economy, and in which the "nomadic ideology" turns out to be characteristic of tribally organised people, settled or unsettled (14). Many studies of nomadic people and their process of sedentarisation show that there is no central ideological or cultural polarisation that may inhibit nomads from settling (see chapter 1). Nomadism and sedentarisation are seen, therefore, to be economic adaptation rather than an ecological or cultural adaptation and radical transformation.

3. The Significant Issues

The second option, of studying the two components of the concept of nomadism - namely the productive system and the residential mobility - separately has produced a wealth of material in which various characteristics of pastoral nomadism have been central (15). Empirical

data and comparative literature have been the basis for such material.

The central issues of the pastoral economies studied include herd management, herd size, demographic features, and the significance of the spatial mobility of the nomads in the political arena. The segmentary lineage system is also a major focus for such studies. The implications of such features are incorporated in the analysis of the pastoral nomadic structure.

The study of pastoral nomadic societies in the Middle East has largely followed the above theme of inquiry (the second option). Two broad theoretical approaches have been identified by Ernest Gellner among writers on pastoral societies in this part of the world: one which views the flow of goods as central and another which takes the balance of power perspective (16). Both these economic and political approaches, however, shy away from identifying generally central ideological and cultural traits. This is because of three reasons. One is the need to study nomads in their separate historically determined situations. Another is that both approaches are structural in nature, which limits the analysis to an attempt to show how certain economic and/or political situations constrain the society into courses of actions, which have particular results. Thirdly, the ideological and cultural approach has been largely unsuitable for the study of Middle Eastern nomadic groups, who have a symbiotic relationship with the sedentary societies, and who are on the whole multi-resource economies that practise agriculture as well as pastoralism.

A. The Cultural Consequences of Sedentarisation

The tendency to ignore the 'ideological' component of pastoral nomadism

has led to a vacuum in the recent significant literature. As a result the classical conceptions of what it is to be a nomad survived to a limited extent, especially when nomadic societies have been studied during the sedentarization process. W Goldschmidt, who represents some features of the classical anthropological thinking on the subject, identified the ethos of pastoral social systems in 1976 as follows:

"People who live by herding animals have a pride, a hauteur, a strong sense of the individual worth and a strong sense of the nobility of pastoralism as a calling" (17)

Goldschmidt also identified seven alleged personality traits in pastoral nomadic people (18). These are the following:

- 1) They are open in their interpersonal relationships to act out their feelings rather than to suppress them.
- 2) They are aggressive in the pursuit of their aims and ambitions, both politically and physically.
- 3) They are low in the expression of affection and have little empathy for the suffering of others below them (women, children, animals, and low status individuals).
- 4) They have a capacity to endure physical hardship and pain.
- 5) They have little interest in engaging in hard and monotonous labour.

- 6) They have a strong sense of machismo.
- 7) They are anxious about themselves, their status and the projection of their future.

In outlining the consequences of the sedentarization process on the Sebei nomads in the Southern Nilotic regions, Goldschmidt described three areas of moral deterioration (19). These are a) the increased incidence of witchcraft, b) the break up of intrafamilial relationships, and c) a generalised and pervasive anomie. Witchcraft is seen by the sedentarized nomads as a tool to act out their hostility or aggression, as a result of their inability to counteract a difficult situation with effective hostility and/or the freedom to move away. The break up of intrafamilial relationships and anomie are a result of the loss of the strong sense of machismo and the meaningfulness of the pastoral traditional ritual and values.

Philip Carl Sulzman, in a completely different vein, also identifies three areas of change in the social, cultural and behavioural patterns of the now sedentarized nomads of Baluchistan in Persia (20). These are the following:

- 1) A decline in lineage corporateness and solidarity, as a result of the decline in co-residence and mutual economic and political support. Lineage mates live together less, and have divergent economic interests apart from pastoralism. They are therefore increasingly less prepared to provide economic assistance and political support. These changes are due to sedentarization which results in a differing involvement in other economic activities (i.e. migration for

wage labour, and/or irrigated agriculture) in addition to pastoralism. They are also due to the decline of self-help as a means for social control, and the increased economic inequality between tribesmen in their new economic structures.

- 2) Another change is the decline of patriarchal authority of the traditional family, leading to an increase of egalitarianism within the age structure.
- 3) A loss of the nomad's identity as a hardy fierce warrior. The decline of nomadism and lineage solidarity, as well as the new subordinate political and economic relationship with the non-tribal members, have delivered a blow to the self-definition of the tribesmen as autonomous and powerful in their social world.

Salzman's description of the changes in the Baluchi society is extremely relevant in principle, if not in detail to our present case. It is undoubtedly valid for the Baluchi in their wider society in which pastoral nomadism as a way of life had been somewhat marginal. An issue that might be picked up from the above descriptions, however, regarding the decline of lineage corporateness, is the emphasis placed on the lack of co-residence and economic homogeneity in the settled state (at the level of similarity). Are we to understand that when the sedentarized nomads live together and participate in similar economic activities (other than the traditional) then there would be a greater level of lineage corporateness? This is partly negated by Salzman's other factor leading to this change - namely that of the increased economic inequality between tribesmen in their new production patterns.

Salzman described the traditional animal wealth of the Baluchi as unstable due to the droughts and occasional epidemics, which result in losses for rich and poor alike. (21). The new forms of wealth, on the other hand, are more stable and less visible. For example, lineage mates have differing access to the water resource (for irrigated agriculture), which creates a more stable form of economic differentiation within the group. Cash from wage labour and/or smuggling, moreover, are invisible forms of resources, which are not likely to be shared by lineage mates. In fact Salzman notes in the same context that protecting one's resources from less fortunate lineage mates is an ongoing concern for relatively prosperous tribesmen (22).

B. Settlement and Co-Residence

Co-residence has been picked up by Donald Cole in his study of the Al-Murrah tribe in Saudi Arabia. He states that these tribesmen derived settlement through a "tribal gathering place" where both the nomads and their sedentarised relatives could interact together as a brotherhood (23). Despite not actually knowing what brotherhood means, we can assume that lineage mates (the most important social grouping for Al-Murrah and the Saudi bedouin society) see co-residence as a major element in maintaining tribal relationships. By implication, mutual support and a high degree of self help are seen to be effective in lineages organised in this way.

According to Cole, Al-Murrah tribesmen look down on spontaneous settlements by tribal groups in shanty towns outside cities, because these represent to them the man's break from his tribal group. Conversely, a lineage settlement in a convenient place in one's

territory is seen as ideal to maintain tribal linkages and cohesion.

Cole, however, does not accept that Al-Murrah could maintain full tribal organisation in a settled state. For him the tribal segmentary organisation is part of their adaptation as nomadic pastoralists. On the social organisation of the tribesmen in settlement, he writes:

"Settlement implies greater concentration of people and a kind of rigidity that prohibits the process of fission and fusion. Their recent settlement in shanty towns already reflects a de facto break in the tribal social organisation, although most of the settlers continue to think of themselves as members of the tribe. We can expect the tribal organisation to maintain itself at least partially only if settlement is planned on a large scale throughout Arabia and if conscious attempts are made to decentralise these settlements in such a way that small groups of kin can settle together and combine pastoralism with other activities (25)."

Although it is not precisely explained in the above what is meant by decentralised settlements, it seems to be a situation whereby the settlers are fully active in both the planning and implementation of projects destined to change their way of life (26). Cole, furthermore, does not lay stress on the role of the "other activities" in the pastoralist's society. Whether or not these activities are always compatible with their "partial maintenance" of the tribal relationship in the sense that he implies is debatable.

For example, there are marked differences between the effects of engaging in different forms of agricultural activities on the pastoral

societies in Saudi Arabia. As was seen in chapter five, simple agricultural (baal) and date-palm gardening required very little labour on the part of the bedouin, and did not conflict with the dominant pastoral activities. Fixed land utilization in the baal case was dependent on yearly fluctuation of rain, and extremely marginal to the economy of the bedouin household (subsistence if they are lucky).

The two forms of irrigated agriculture - traditional and mainly subsistence, and modern market oriented - are qualitatively different in terms of nature and effect on the bedouin households dominated by a pastoralist economy. Both, however, are achieved through a decentralised form of land distribution (Iqta by the lineage leadership to the lineage members on the lineage's land), and are also directly connected to national characteristics of the rural economy at different periods. The first (traditional and mainly subsistence) reduces the labour commitment to pastoral activities; while the other ends up by completely altering the patterns of production and the levels of agricultural income among the bedouin participants.

C. Settlement and Tribal Relations

Even when decentralised forms of land distribution are present, the tribal leadership is devoid of its true political function. Cole himself testifies to this in his study of Al-Murrah:

"Today the tribe no longer enjoy the same degree of autonomy as in the past and tribal leaders base their power on their ability to act as intermediaries between the members of the tribe and the rulers of Saudi Arabia (27).

Even as far back as 1963, a special group study commissioned by ARAMCO reached the conclusion that wealth had loosened the connection between the tribal leaders and the common man; and that the rise of a wealthy central government has, together with this, promoted a more direct relationship between the people and the top ⁽²⁸⁾. It states:

"Even among bedouins, we are told, the older tribal and subtribal allegiances are being replaced by the idea that the centre and not the tribal head or his subordinate is seen as the source of effective power and the place for submitting petitions and bringing requests ⁽²⁹⁾.

The above was happening against a background which appeared to maintain tribal relations, and the legitimacy of the tribal leaders. Abdulrahman Said in 1980 stressed that "the Saudi government had been most careful not to abruptly interrupt the authority patterns, the National Guard, for example pays salaries through tribal sheikhs" ⁽³⁰⁾. Said most accurately asserts that the new social and authority structures are a result of a new set of economic arrangements over which the bedouin has very little control. He writes:

"The bedouin's realization of his vulnerability in the face of the national economy sets in motion a chain reaction that, often, results in a hurried restructuring of both social and authority relationships." ⁽³¹⁾

Others see the emerging forms of social and authority structures as directly related to state policy. Helen Lackner wrote the following in 1978:

"It is only in the 1960s and the 1970s that traditional social structures have been uprooted under the contradictory pressures of a traditionalist political system and economic policies based on western concepts of development and modernisation." (32)

She goes on to say that the bedouin ideology is, on the one hand, hailed throughout the state as an ideal to which all should aspire, while on the other hand the state was established on the basis of the manipulation of some social and political values (33).

D. "Bedouinism": Contradictory Images

The contradictory attitudes to the bedouin ideology (rooted in the nomadic past) were touched upon by Ibrahim and Cole in 1978. They stated that there are contrasting views on the social status of the bedouin. One is very high, which relates to the tribal descent and the so-called pure blood line of the tribals (especially operative in marriage situations). The other view, in contrast, regards the bedouins as having very poor social status due to their lack of modernity and education, as well as a perception that they represent an anachronism in contemporary Saudi Arabia (34).

Ibrahim and Cole state accurately that one or the other of these two views are sometimes held by different groups, even among the tribals themselves as in the case of different sections of the Royal Family (35). The phenomenon, however, is more ambivalent than two differing opinions held by different groups. In fact the two considerations seem to be operative at the same time at a certain level. While one view (high status) relates to the ideology of bedouinism or tribalism, the

other pertains to the actual manifestation of bedouinism in the present society. Keeping in mind at the present state's determination to settle the nomadic population since before the beginning of the Saudi history, let us consider the following passage from the Second Development plan (1975-1980):

"The bedouin have a complex highly developed social, economic and legal system that has adapted to change over many hundreds of years. Nevertheless, the pace of change in the rest of the kingdom has recently been so fast that the economic and social gap between the bedouin and the remainder of the population is widening, consequently specific programmes based on realistic appraisal of the needs and changing social and economic role of the bedouin are required to improve the life of this segment of the population." (36)

The above passage displays quite clearly the dualistic perceptions of 'bedouinism' by the Saudi system and ideology as on the one hand positive and consistent with change (particularly the early ones), while simultaneously being perceived as negative and not consistent with the recent modern changes.

The same development plan characterises the bedouin groups as having low per capita income in comparison to the national average, and a lack of access to most social, educational and other services (37). In addition to the low economic status and lack of education (translated as 'ignorance' in the popular culture), the Saudi bedouin also suffer from images of violence, individualism and opportunism in the present society. These images run in parallel to the idea that the present

state-controlled conditions have given the Saudi society peace and prosperity under the umbrella of an Islamic ideology. The Saudi state is seen as having overcome the previous conditions of tribal wars, strife and divisions.

The internalization of these ideas (which have some justification in the history of the area) is clearly obvious to any observer of the Saudi society. They also find their way into one dimensional academic analysis of Saudi history, as in the following:

"King Abdalaziz conducted a very intelligent programme to transform this society from strife torn society into a community to which he taught the meaning of citizenship, stability and earning a living through means other than plunder, killing and looting. He endeavoured to transfer the people from the bedouinism pastoral stage to that of agriculture and settled family life. He imbued them with the quest for knowledge, and strove to free their beliefs from superstition and to restore them to the priority of Islam."
(38)

The 'plunder and looting' characteristics of the pre-state conditions are of course related to full fledged tribal wars, and the practice of raiding. The latter has been variously described as (1) a bedouin sport in which no one got hurt (by John Habib) ⁽³⁹⁾; (2) a form of resource exchange in nomadic society (L Sweet); ⁽⁴⁰⁾ and (3) a practice which never involved casualties nor unmatched tribal groups (Donald Cole). Cole also stated that powerful tribes in Saudi Arabia never raided the other lineages of their own tribe, nor weaker or poorer tribal groups. Only equal status tribal units and their animals were

open to al-ghazzu (raiding) ⁽⁴¹⁾. Tribal wars, on the other hand, were waged to obtain territories, or to subjugate another group or to pillage ⁽⁴²⁾.

Despite the absence of the above manifestations of the tribal way of life at present, the idea persists that bedouin aggression and individualism need to be controlled firmly, as in the following:

"It is very essential to bring the bedouins under increasing control of the central government as an important step toward their achieving more political stability and better living conditions." ⁽⁴³⁾

Another manifestation of this image of aggression and violence is seen in the present society in the differentiation between the two military institutions: The Army, and the National Guard. The National Guard, which is predominantly composed of tribal bedouin members is often seen as a second class military institution, requiring a very low educational level and also potentially violent and dangerous ⁽⁴⁴⁾.

On the individualistic nature of tribalism, Ibrahim and Cole wrote in 1978 that the tribal structure works in two ways: one that provides a framework of unity and co-operation, and another which leads to segmentation and exaggerated individualism. The first leads the members of the lineage or tribe to work together from common economic and social goals, while the other leads to extreme jealousy and lack of co-operation among the segments of the tribe. The two authors, moreover, state that the non co-operative aspect of tribalism is in the ascendant in the present Saudi society ⁽⁴⁵⁾.

The above leads to an impression that a tendency to maintain the 'ideology' of tribalism while endeavouring to remove the political and economic function of the tribe leaves empty shell, in which only the most biologically persistent characteristic (i.e. the segmentary blood ties) is operative. As an example of this, Ibrahim and Cole related a statement of a tribal member, in which he told them that within his tribe, each family (extended household) wants a modern well, an agricultural plot, and a school. None wanted to join together, especially above the lineage level, to have common schools or other modern facilities. All facilities not specifically designed for them and their own children were refused. (46)

Similar attitudes were observed in this study's region (see chapter 3); not only among the bedouin communities, but also in the villages of the region (sedentary tribals). This situation leads us to conclude that the individualism that is seen as a negative manifestation of the nomadic tribal ideology is actually aggravated and heightened by the present conditions and not merely a legacy of the past.

The negative images of the bedouin in the present Saudi society, which include poverty, ignorance, violence, aggression and individualism, are at some level similar to Goldschmidt identification of the nomadic personality. Some (like low economic and educational status) are a direct result of the isolation of the bedouin groups. The others are stereotypes that result from misrepresentation of the conditions prevalent in the past, and/or a direct result of changes affecting tribalism and the bedouin way of life at present.

E. The Bedouin Identity

While Salzman described the Baluchi nomads as losing their

self-identification which was derived from pastoral economic adaptation (i.e. hardy fierce warrior), the Saudi bedouins situations in sedentarized conditions is somewhat more ambivalent. On the one hand, they represent to themselves and to others the closest link to the 'nomadic tribal ideology'. The positive images of this ideology include bravery, generosity, hardiness and loyalty to one's group. Certain manifestations of the tribal structure, moreover, continue to be maintained; these include tribal territories, tribal leadership, and the legitimacy of the Royal Family as the leaders of tribal (and Islamic) people.

On the other hand, bedouin groups in the present modern society are marginal in terms of integration into the new modern economic arrangements. Their images are, furthermore, mostly negative and seemingly call for more incorporation into broader political and social structures through sedentarization. This duality could lead to an ambivalent self-identification by the bedouins themselves, if the messages from the wider society are internalised.

Connected to the latter element is the idea that the bedouin groups are the least likely to have a feeling of control over the new set of economic arrangements, because they require a new set of personal qualifications and a greater level of transformation in the internal community (as discussed by A Said and referred to above).

The consequences of all the above elements for the self-identification of the bedouin, and his perception of his relationship with the wider society, must include tension between the pull of pride in representing a revered cultural ideology, the pull of the traditional heritage (as practised by fathers and grandfathers), and the pull of modern culture

which offers improved levels of livelihood and incomes, and to which he is considered inferior.

The inferior position of the bedouin to the modern society seems to be internalised among the bedouins themselves. For example, the term bedouin is used popularly to indicate ignorance, even among the bedouins (or tribals) themselves. The bedouin of Sajir used the term to describe themselves when indicating ignorance of certain matters, or when referring to the lack of education of the females in their households. The study's population self-identification will be discussed more fully below.

4) Issues of Detail

The above analysis leads to the central issue of concern for this chapter - namely that of the effect of the legacy of bedouinism on the perception, self identification and attitudes of the interviewed bedouins as regards their farming activities.

As seen before (chapter 5) Al-Hanatish in Sajir start the sedentarisation process by a strong reference to their tribal identity. This reference allows them to take their place in the settlement, and to enter advantageously into a sedentary economy which include farming as a major component. In fact it could be said that the Al-Hanatish lineage has found the ideal situation (described by Cole in 1975) for a desirable way of life, and for partially maintaining tribal relations (see previous section).

Not only do the lineage mates have a "gathering place", but they also

exploit similar resources, and have similar interests as regards the dominant economic sub-system (farming). The distribution process of these resources, moreover, is decentralised at the implementation level, if not where its legitimacy originates. Furthermore, the sub-groups in the lineage have an opportunity to retain as much of their tribal and kinship cohesiveness as they desire. Hamlet settlements in Sajir by minimal lineages, are in fact exercises of this ability. The distribution of the resources in some of these hamlets is also left to the sub-group and its leaders.

The analysis of animal wealth among the interviewed bedouins (chapter 7) also showed that the bedouin legacy exercises some influence over the ownership and the management of livestock, if not on the behavioural pattern of the owners. The interviewed bedouin, furthermore, perceived themselves as pastoralists in relation to their animal holdings, despite not being actively engaged in the relevant traditions, nor in the behavioural requirements.

Moreover, the pattern of settlement of Al-Hanatish in Sajir and the available resources (water, larger plots of land and grazing deserts) are all elements that are not opposed to the continuation of a pastoral economy. Some groups of the region have chosen animal breeding as a dominant household economy, as opposed to a complete enmeshment in a farming livelihood (see chapter 5). These elements can be seen as positive forces for a continued identification with the bedouin identity and the pastoral legacy.

On the other hand, an agricultural household economy is even more advantageous to the bedouin household at the present time. The economic and social rewards of a farming sedentary livelihood exceed

differentiated economic status among the different groups of landholders at present, not only in farming, but also in relation to animal holdings (see chapter 7). This was clearly observed when comparing the largest category of landowners to the smallest one. This economic inequality experienced by lineage mates cannot be encouraging to lineage corporativeness, nor to the continued identification with the group as a whole.

3. There was a marked tendency to depend on the state's incentives for agricultural production, and especially on the wheat farming programme as outlined by the state. This in effect discouraged any other forms of cultivation, or any internally devised alternatives in this farming community (as well as others). Vegetables and other cereal production have all but ceased in Sajir and the surrounding communities, especially among the less economically advantaged group of farmers who can not afford to initiate other farming projects. This brings to mind A. Said's analysis of the vulnerability of the bedouin in the face of new economic patterns of production (see previous section). Most of the largest farming projects (for cereal and fodder production, milk production and vegetable production) in the region represent urban based capital investments (see chapter 6).

4. A noteworthy element of the analysis of the farming operation among Sajir's community was the high level of adaptability to the new forms of agricultural production. This might not have been expected of a pastorally orientated community, especially among the more recently settled groups in Sajir. The quick acceptance of the technically advanced farming

methods and the new structures of production could represent a natural push for an economically more advantageous productive system. It is, nonetheless, indicative of a rapid process of social change, which started earlier than more recent developments.

In the light of the above considerations, i.e. elements in the social system which encourage the bedouin identity and bedouinism, and other elements discouraging to the traditional social structure (lineage solidarity and bedouinism), this chapter will focus on locating the effectiveness of the opposing factors in the interviewed bedouins' perceptions and attitudes especially to the dominant economic sub-system (farming).

Although the new forms of agricultural production have been already identified as potentially and actually a distancing factor from the traditional social systems, there is a need to know the effectiveness of this recent development on the bedouin's perceptions and attitudes to this important sector of their lives. We can not assume that the new elements are already reflected in the general conceptions, especially when the changes are recent, potentially limited to certain time period (as long as state support is given), and are also opposed by other existing traditional factors.

The areas that will be looked at are the following:

1. Perceptions of Agriculture (questions 63-67 of the interview, see appendix). In addition to the empirical data of the interviewees' opinion and views of the general farming issues, and their proposals for the solution of the various farming difficulties; the analysis will

also endeavour to locate the following elements of the farmers' answers:

- A The group as an effective agent in the perceptions of the general issues and problems, and in the proposed solutions to these problems.
- B Perceptions of control over the farming operation, as measured by a direct question and by a number of open ended questions about agricultural issues. The emphasis will include i) the farmer as a passive recipient of change versus an active agent in the process of change, and ii) self help as a means for social control.

The two issues are derived from the analysis previously outlined in section three of the cultural consequences of sedentarization as well as the regional considerations outlined above.

2. Self Identification by the bedouin farmers. As seen in the previous section, the bedouins perceived identity may be influenced by tensions from three pulling factors: one originating from the close linkage to a respected ideology (bedouinism), another connected to the traditions practised by the fathers and forefathers of the bedouins in the not too recent past; and yet another, which relates to the pull of the modern culture with its new forms of economic patterns, which offer the bedouin improved livelihood.

The analysis of this part of the data will consider the above, as well as emphasising the interplay between the ideological and the economic aspects of the bedouins' conceptions of themselves. The latter may

include not only farming as an important aspect of the farmers' lives, but also employment and even livestock breeding as aspects of the bedouin household economy.

3 Commitment to agriculture and other related attitudes. Despite the virtual discrediting of the classical image of the nomads being hostile and inimical to the sedentary agricultural lifestyle (by wide anthropological studies of nomads settling in agricultural communities), this idea persisted in the Saudi official circles regarding the Saudi bedouin.

In 1969 Faisal Bashir described the great commitment of the bedouin for the preservation of his history and his tribe. He went on to say:

"This kind of commitment to preserve and defend a way of life and its history is a significant barrier for nomadic persons considering abandonment of nomadic traditions and settlement in villages or cities." (47)

Others saw the bedouins as despising agriculture and handicrafts (48), or considering agriculture as a "craft" of which they are ashamed (49). A report by a Saudi Arabian delegation in Jordan in 1965 described some bedouins of Saudi Arabia as entering agriculture only when they are obliged to do so. Their lack of experience and expertise, however, disposes them to return to pastoralism after the need is eliminated (50).

The above views may be partly an effort to explain the failure of the official settlement schemes of the Saudi Government (Wadi Sirham, and Haradh). They therefore do not emphasise the continuous cycle of

agricultural settlement by the nomads, nor their frequent practise of dry and date-palm agriculture.

The internalization of this attitude in the Saudi popular culture was demonstrated by the views expressed by some members of the official personnel of the agriculture services during the fieldwork period, by the members of the sedentary village communities, and even by some of Al-Hanatish themselves. These views voiced a doubt about the commitment of the bedouin to agricultural production, claiming that it is partly due to the economically favourable circumstances of farming at present.

In order to investigate this issue, two areas were looked at:

1. The nature of this commitment: i.e. for 'settlement' only, or for the increased incomes generated by agricultural production in Saudi Arabia at present.
2. The strength of this commitment (in case of reduced incomes) and the desire to continue in a farming lifestyle.

These issues are focussed on by questions 69 and 72 of the interview, as well as question 75 which deals with the bedouin farmers' aspiration for their children.

4. The latter parts of this chapter will focus on bedouin women's position in the present social system, and the role of the bedouin ideology in this position. There will also be a brief description of the results of the interviews conducted with the members of a sedentary

community (in Al-Burud). Only the issues of concern to this chapter will be emphasised, to ascertain if there are indeed differences between bedouin and sedentary conceptions and perceptions of farming in the present Saudi society.

Section II The Interview Data

Before analysing the data from the interviews, a few cautious comments may be pertinent at this point. Perceptions, self images and attitudes are hard to measure at any point, because sociologists do not have a yardstick by which to measure them. They become even harder to measure when we consider the frame of mind of the researcher and his/her subjects of study. The intellectual and attitudinal prejudices that a researcher brings with him/her affect the way the people under study respond to the so called 'scientific' survey. In this case two elements must be borne in mind.

1. This researcher entered the interaction with the bedouin farmers emphasising the agricultural operation as a safe issue, and while endeavouring to study other things may have focussed on the interests, perceptions and attitudes of the bedouin farmers toward the farming component of their economic livelihood. This in turn may have affected their expression of other equally important interests and aspects of their lives.
2. Being a native of the socio-economic structure and an interested party to some extent, the researcher may have been either too enthusiastic for, or unimpressed by, particular elements in the studied society. For instance, the

researcher is enthusiastic for the continued existence and development of the agricultural component of the socio-economic structure, but hopefully without endangering the smaller operators in the Sajir region. This may be opposed to a 'rational' economic argument, which stresses productivity, efficiency and national interests. This position, in turn, may affect the perception of the importance of agricultural operations among the small operators.

Another example would be in relation to the 'tribal ideology'. A non-native researcher may become struck by the frequency and strength of stated importance of this aspect in the bedouin life. This one, however, is used to sedentary 'tribal' farmers talking in terms of tribe and lineage, but acting on the basis of individual self-interest (even within the nuclear family), as regards ownership of land and other related interests.

Needless to say, by the mere fact of openly stating these prejudices and perceptions, an effort is being made toward eliminating their effect on the results to an acceptable level. The discussion will now turn to the data from the interviews.

1) Perceptions of Agriculture

A Perceptions of Problems

There was an element of confusion in the way some farmers responded to general enquiries about the agricultural operation. For example, when

farmers were asked initially about the general problems (open ended question), they referred to the immediate personal problems facing them at the time of the interview. These run on the level of not having enough money, where to store their wheat harvest, debts to SAAB and other people, and/or not receiving their payments for the wheat harvest.

When next asked specifically about certain general problems (see appendix 1, question 64), they switch their concern to whatever worried them most of the listed items. The most emphasised problem was marketing and distribution of agricultural goods (see table 8.1). Water shortages and crop diseases came second and third in order of priority among all the farmers.

Only three farmers listed lack of own experience and lack of training as the most important problem facing the agricultural operators in the region. The farmers comments about "lack of own experience" and "lack of training" were checked to see if in fact they represented a concern for the farmers. Eleven of the interviewees saw 'lack of experience' as somewhat of a problem, while 25 said that the experience is available.

Lack of training, however, was picked as somewhat of a problem by a larger number of farmers (than the eleven picking 'lack of experience'). This type of comment was accompanied by negative comments about the regional office of MAW and its services.

Labour shortage did not seem to be a concern for the overwhelming majority of the farmers. Comments about agricultural labour were at the level of difficulty in obtaining trained foreign labour, the delays

Table 8.1Farmers' Perception of Agricultural Problems

Problems Emphasised	Number of Farmers
Marketing and Distribution of Agricultural Goods (not wheat)	17
Water Shortage	7
Crop Diseases	5
Non Co-operation of Government Agencies	2
Lack of experience and training	3
Other	3
None	1
Total	38

Table 8.2Perception of Control Over Problems

Degree of Control	Number of Farmers
None	21
Complete Control	6
Uneven Partial Control	11
Total	38

encountered in the process of recruiting, or difficulties in retaining experienced farm workers.

B Perception of Control

The majority of the farmers felt they had no control over the farming problems (see table 8.2). Eleven only said that some problems can be controlled by the farmer, while six saw the problems as well within the farmer's control. When perceptions of the problems were cross-tabulated with perceptions of control, some contradictions appeared to exist among those who expressed complete control over farming difficulties, especially in the area of water shortages (see table 8.3). This confirmed this researcher feeling upon examining the data, that almost all of those who expressed a feeling of control over agricultural problems were not quite well versed, nor fully experienced in the agricultural activity.

Some examples may demonstrate this point. A farmer (recent settler) answered the open ended questions about problems with "I have not noticed any". He went on to comment on each listed item as "that is not a problem", except for marketing and distribution. He went on to explain that marketing is not a problem, but distribution is because they have to rely on desert unpaved roads. When asked about why he chose his answer "well within the farmers control" he said "I can control my own personal problems, but not general issues."

Other explanations for choosing "control" were "the government gives us everything," "we are farmers, we know everything on our farm", "after preparing the land, we are in full control", and "if we are made comfortable, we control everything."

Table 8.3**The Farmers' Perceptions of Problems and their Control over these Problems**

Problems Emphasised	Degree of Control			Total
	None	Complete	Partial Control	
Marketing and Distribution	10	1	6	17
Water shortage	5	2	0	7
Crop Disease	1	1	3	5
Non Co-operation of Governmental Agencies	2	0	0	2
Other Problems ⁽¹⁾	3	1	2	6
None	0	1	0	1
Total	21	6	11	38

(1) These include: having no money, SAAB yearly repayments, lack of experience, lack of agricultural training, and the climate.

Table 8.4**Proposed Action to Avoid or Lessen Farming Problems**

	Degree of Perceived Control			Total
	None	Full	Partial	
<u>Action by State's Agencies</u>	16	1	6	23
<u>Action by Farmers</u>	3	1	3	7
<u>Combined Action by state and farmers</u>	1	1	0	2
<u>No Answer</u> (1)	1	3	2	6
Total	21	6	11	38

(1) Five farmers did not understand the question posed. One said that there are no problems to be solved.

The majority of farmers who chose "beyond farmer's control" were well versed in farming problems, and indignant about facing them. The ten who perceived marketing and distribution as the major problem, thought of it as arising from lack of action by the government and/or the monopolies exercised by the "middlemen" of the marketing operation. Another five saw the problems arising from governmental agencies, and only six saw natural problems (water shortages, and crop diseases) as paramount. The explanations of their choice of "no control" were overwhelmingly in relation to their perception of the state's agencies as having the sole responsibility for the improvements and the alleviation of the felt problems. One young farmer expressed their feelings eloquently: "Because we were nothing before the government's support, and we cannot continue, nor meet our commitments without the continuation of this support."

The third group of farmers, who thought that some problems can be controlled by the farmers, were divided into three groups when it came to explaining their choice:

- A - Four saw some problems as arising from God's will and nature (water, disease, productivity), and therefore beyond farmers' control. Other problems, however, could be controlled by farmers.
- B - Four saw marketing as beyond the control of the farmer, whereas he could control problems arising on his own farm.
- C - Three saw the availability of money (material wealth) as the major component toward the solving of all problems. Without it, problems cannot be controlled.

C) Proposals for Solutions

When it came to proposing solutions to the problems faced by the farmer (see table 8.4), the majority of the farmers thought that only governmental action would be able to eliminate the farming problems. Here again, there was some inconsistency among the farmers who perceived themselves in full control, and two of them were not able to understand the question posed. The majority of the other two groups (no control, some control) saw the solution lying in the hands of the government.

When it came to the type of action proposed, suggested state actions ran along these lines: "Solve marketing problems", "reduce SAAB debts", "increase financial support", "provide counselling and crop management facilities" and "solutions are difficult and are only understood by the governmental agencies". The proposed actions by farmers, on the other hand, were the following: "The farmers must change their attitudes towards farming", "we must conserve water", "we must seek counselling in relation to crop problems", "the farmers must concentrate on farming", "we must form marketing co-operatives", and "we must seek help from the government."

D An Overview of the Perceptions

In the above it is quite clear that the group's actions figured only slightly in the farmers' answers. Only twice was collective action ever mentioned by the farmers, and at no time was the lineage or its leaders referred to. This is not surprising, when we consider that the farmers' frame of reference was overwhelming towards others rather than self when it came to the problems themselves and control over

them, and also in considering solutions to these problems.

If, for argument's sake, we consider the anger and indignation of the group of farmers who perceive no control over problems as an expression of political potency or assertiveness (as opposed to passivity and acceptance), then the question arises: why did they not express solutions that included themselves as the active agents of change? In fact, the third group of farmers (see table 8.4) who saw some measure of control in the hands of the farmers, were more constructive in their proposed actions. They are the ones who suggested marketing co-operatives, water conservation and crop rotation.

In concluding this section of the analysis of the data, some tendencies are clear. These are the following:

- 1 - The farmers interviewed tended to perceive themselves as lacking control over their agricultural activities.
- 2 - The "lineage" or group does not play an important part (if any part) in the farmer's perceptions of their status as farmers at the present time.
- 3 - The farmers tend to see themselves as passive recipients of change, and passive agents in the process of change, when it comes to their non-traditional activity.

It could be argued at this point that this researcher's emphasis on the agricultural operation during the interviewing process has focussed the attention of the bedouin farmers on their status as farmers. Answers regarding other elements of their social system could have been,

therefore, deemed inappropriate. This could well be true, but the analysis at this point does not claim to cover other than this aspect of their socio-economic system, which is after all a very important element of their livelihood and their process of sedentarisation. It is, therefore, legitimate for the interview to focus their attention on themselves as farmers, and to draw conclusions from their answers at least in this respect.

2 Self Identification

The farmers were, for the most part, reluctant to slot themselves in one single mould of identification. Two tendencies were clear: a) a need to call themselves bedouin, and b) a need to perceive themselves as modern. The first tendency showed itself in insisting that they are bedouin farmers. The second tendency showed itself in their preference for the Arabic term mozaraa (agriculturalist), rather than falah (which has peasant or traditional connotations). It was also clear when the farmers were enthusiastically talking about their "business man" activities. The self-identification of "employee" was added on by the farmers themselves to the list of identifications in the interview. Only one farmer refused to identify himself and another said that he is a citizen of the country and nothing else.

When "agriculturalist" and "farmer" self identifications were amalgamated, the majority of farmers (23): (see table 8.5) seemed to refer to the farming components of their lives. The bedouin part, however, received respectable attention from the farmers (12 cases). Those in the "all of the above" category are ignored at this point, because they do not make any difference in the numbers that make up the competition between the "ideological component" (bedouin) and the

Self-Identification Among the Farmers

Form of Identification	Number of Farmers
1 - A Farmer	17
2 - A Bedouin farmer	6
3 - A Bedouin	4
4 - A sedentarised Bedouin	2
5 - Employee	3
6 - Businessman	1
7 - All of the above	3 ⁽¹⁾
8 - Other identification (citizen)	1
9 - No self-identification	1
Total	38

(1) 15 farmers in total utilized "bedouin" in their self-identification, when we add this category of identification.

Table 8.6

Perception of Farming Future

Outlook	Number of Farmers
Optimistic	18
Pessimistic	8
Mostly optimistic	6
Mostly pessimistic	3
No answer	3
Total	38

"economic component" (farming) in the three first categories.

When we add the four individuals who described themselves as businessmen and employees, we find that the economic activity of the farmer, in the majority of cases, dictates how he perceives himself. That, however, does not allow us to ignore the serious nature of the traditional pull. This is because the twelve who saw themselves as bedouins, bedouin farmers, or sedentarized bedouins were for the most part also practising livestock breeding.

Another interesting feature was found among two of the most recent settlers, who insisted that they are farmers, even though one of them was a short-range pastoralist, and the other a large animal holder.

Despite the slight inconsistency, we could say here that those interviewed in Sajir feel the pull of a tension between "modern" economic activities and "traditional" ideological or economic categories. The tendency, however, is toward identifying with the factors most effective in their lives at present, be it agriculture or livestock breeding.

A comment about the inter-personal contact between the researcher and the interviewees may not be out of place here. Most of the farmers showed varying degrees of bedouin machismo during the interview. There were, however, some subtle differences observed in various groups of farmers. The rich and successful farmers were more proud, condescending and unimpressed, despite being always helpful and chivalrous. Another group of farmers, who were more traditional and less successful, showed a degree of awe, and a hesitancy towards what they perceived to be the "professional" nature of the interview. The

younger and more educated group were openly pleased with the encounter, which they thought of as a novelty and a diversion. Some even wanted to lengthen the experience by inviting the researcher to avail herself to their help whenever needed.

All in all, we could therefore think of bedouin machismo (which is sometimes expressed by pride, laughter at other's expense and/or arrogance) as stemming from the natural community's pride, a high degree of self evaluation (rooted in the reality of their economic status), or a form of defence against situations, which are perceived to be threatening to the bedouin's self image.

3 Commitment and Attitudes to the Agricultural Operation

A) Commitment to Farming

In trying to gauge satisfaction among the farmers, by asking about optimism or the lack of it in the farmers outlook on agriculture, it became quite apparent that the majority of farmers considered optimism a moral virtue. This was the case, even when the farmers had been highly critical in their previous comments on farming (see table 8.6). There was a general strong reaction to the word motashaam (pessimistic), which was considered not in accordance with Muslim virtues.

In answer to the question "what would you do in case of a decline in the farming incomes?", the farmers were more realistic. Their answers were also more comprehensive than the stated action options in the interview (see appendix, Q.70). The responses were cross tabulated with land ownership to see if there are differences among different

categories of ownership (see table 8.7). Two tendencies were clear in reviewing the responses to the question. These are the following:

- 1 A slim majority of eighteen saw themselves as committed to farming, either because of choice, and/or financial commitments (to SAAB, and the capital invested in the farm).
- 2 Fourteen farmers were anxious to assert their commitment to their land (farm), but said that they will concentrate on other activities. These activities may include some form of animal husbandry.

In comparing the answers of the two smaller categories of landownership (25 - 100 ha, and 101 - 200 ha) and the two larger ones (201 - 300 ha, and over 300 ha), more of the larger holders (7 out of 14) expressed a firm commitment to farming. The smaller holders were less likely to express the same commitment (10 out of 24). Those who voiced a concern for continued profit (see table 8.7), were successful farmers, two of whom were the most efficient in the wheat producing operation (see chapter 6).

If we look at each category of landholders separately we would find the smallest category (25 - 100 ha) and the third category (201 - 300 ha) are most likely to keep the farm, but concentrate on other activities (5 out of 10 in the one case or 50%, and 3 out of 7 or 43% in the other). The reason for this among the small holders (25 - 100 ha) may be seen as resulting from lack of prospects because of small size of the land owned, and also because of bad performance in the agricultural operations (see chapter 6). The bedouins in the larger category (201 - 300 ha), however, were on the whole large owners of animals which may

Divisions Among Farmers According to Landownership and
Action in case of decline in Agricultural Incomes

Action	Land ownership in hectares					Total
	Do not know	25-100	101-200	201-300	over 300	
1-I will keep on farming as long as I can	1	2	1	2	2	8
2-I have to keep on farming because of my financial commitments	0	3	4	2	1	10
3-Will only cultivate if it is profitable	0	0	2	0	1	3
4-I will keep my farm, but concentrate on other activities	0	5	4	3	2	14
5-Leave farming altogether	1	0	0	0	1	2
6-I do not know	0	0	1	0	0	1
Total	2	10	12	7	7	38

Table 8.8

Alternative Choices for Livelihood Among the Farmers
in the Different Categories of Cultivation

Options for livelihood	Cultivation size in hectares					Total
	do not know	10-100	101-200	201-300	Over 300	
1-None	0	7	1	3	0	11
2-Livestock	2	5	2	3	1	13
3-Employment	0	3	4	0	1	8
4-Commercial Activities (real estate, business)	0	1	2	1	0	4
5-Many options	0	0	1	0	1	2
Total	2	16	10	7	3	38

account for their choice in this respect, i.e. for animal husbandry.

The two bedouin farmers who are in the "I do not know" category (estimated to have 60 ha of cultivation) are a very recently settled bedouin, and a short-range pastoralist (living in a tent). The latter bedouin identified himself as a farmer, and continued to show extreme commitment to farming by being the one to say "I will keep farming as long as I can". The other person in this category, by contrast had no hesitation whatsoever about leaving. He said, in explaining his choice, that he tried farming, and it does not suit him.

It is not hard to explain the short-range nomad's apparent commitment to the idea of farming. The members of the family, who were settled in the lineage's hamlet settlement, explained that this section of their family continued in pastoralism because the elderly father and mother were not disposed toward settlement. The younger son (the one interviewed) and his sisters were, on the other hand, anxious to experience the 'comforts' of settlement and the advantages it brings, like education, entertainment and civilisation (hadharah). This bedouin's commitment appears to be to a way of life rather than to farming per se; of which he had very little experience in any case. The other settled bedouin is assured of his place in a settled state (ownership of land, and actual sedentarisation), which allows him to make a judgement about farming based on his short experience.

B) Alternative Options for Livelihood

When the alternative choices for livelihood were explored, the advantages of a multi-resource household economy became apparent.

Twenty seven of the interviewed bedouin perceived themselves as having at least one option for an alternative livelihood. The data, however, was handled in a simplified manner by taking the first option stressed by the bedouin farmers. These options were cross tabulated with the cultivation size, which is seen in this work as an indicator of economic status. This is to show the effect of the economic status of the bedouin farmer on the choice he makes for an alternative livelihood. Two farmers, however, insisted that they have many options (see table 8.8).

Livestock breeding was the favourite option for the farmers, especially for those in the smallest category of cultivation (10 - 100 ha), and in the third category (201 - 300 ha). Employment came second as an open option for the farmers, especially for those in the second category of cultivation (101 - 200 ha). Those who said that they have many options were the highest producer of wheat (528 ha cultivated and 4.8 ton/ha yield) and the highest yielder of wheat among all the interviewed (200 ha cultivated, 5 ton/ha yield).

The perception of no other option for alternative livelihood was highest again among the smallest category and third category of cultivation (10-100 ha and 201-300 ha), while the two recently settled bedouins in the "do not know" category saw livestock breeding as an open option for livelihood.

Perceptions of lack of options, in general, did not always follow the reality of the situation among the farmers. It depended, in fact, on an evaluation and assessment of their personal situation by each farmer. Not all the farmers who perceived no option but farming are,

in fact, farmers only. Some were employed, or owned livestock. For example, the young farmer who talked despairingly about the need for continued support from the government (see beginning of this section), chose to say that he has no option but farming, despite being a high school graduate in the civil service at Sajir's Amiriat. His assessment of his situation, however, prompted him to say that he had no hope to pay his debts and keep his land except by farming.

Many of the others interviewed reflected the same tendency. Some who had less prospects than the above case, for instance, were more optimistic about their future merely because they generally had less "worried" attitudes towards the state of things. An example, here, would be in three cases in the small cultivation category, who in fact did not own any substantial livestock holdings, but optimistically said that animal breeding is an open option.

The choice of options was also sometimes reflective of a frame of mind and how the farmers felt about their various resources. A prosperous, highly placed civil servant (in the telephone and telegraph office in Sajir), who owned real estate and commercial ventures, did not refer to these assets when responding to the question. Another, who described himself as an employee, and owned livestock, saw employment as important in his future prospects.

From the above, and in an attempt to analyse table 8.8, the following conclusions may be drawn:

- 1 There is a high commitment to farming. 23 of those interviewed saw their future in cultivation or animal farming, regardless of their other resources outside the

agricultural sector.

- 2 The traditional element in this settled community (i.e. pastoralism) reasserts itself at times of uncertainty (i.e. decline in farming incomes), especially among the less prosperous (small cultivators) and the more recently settled ("I don't know" and "third" categories of cultivation).
- 3 The modern sector options (employment, commercial activities and/or real estate and business) seem to be operative among the more successful of the farmers, either in actual cultivation size or productivity on the farm (see comments on farming performance in chapter 6).

C) Aspirations for Children

Despite this apparent commitment to farming at present among the bedouin farmers interviewed, they did not seem to value it highly as a prospect for their children. In fact only one said unconditionally that he wanted his sons to be farmers (see table 8.9). The interesting point about this particular farmer is that he had only settled in 1978. He was also actively seeking a buyer for his farm, on which he had achieved no success.

The overwhelming majority of the farmers placed a great emphasis on a good education and a good employment. Success and monetary profit were put as conditions, if the children were to follow a farming career. In responding to this question, the farmers expressed a degree of dissatisfaction in the farming livelihood, and previously unspoken perceptions of hardships and low self esteem.

Table 8.9Aspiration for Own Children

Type of Aspiration	Number of Farmers
1-A good education and a good job	25
2-Not farming in any case	4
3-Success	2
4-Farming if profitable	2
5-A good education comes first	2
6-Employment with farming	1
7-It is up to them	1
8-I wish them to be farmers	1
Total	38

Education, for boys, was high on the agenda as an aspiration and hope for the farmer's children. How much of an education proved to be an ambiguous area. Some farmers specified high school as a satisfactory level, while others asked what is the highest level of education, before actually choosing that level. The majority, however, specified a college level of education as desired. Not all, nonetheless, were convinced that this will be the case for the sons, because the latter have not showed enough aptitude or desire to go on in the education ladder.

What was not ambiguous at all, however, was that traditions, past and present, were never operative in the perception and images of good future prospect, naturally desired by those interviewed for their children. This was not the case in the area of aspiration for daughters (which will be discussed in the next sections), nor was it true for the sedentary farmers (also discussed later).

No conclusions will be drawn at this point, because certain matters and issues become more clear when we consider bedouin women and sedentary farmers.

4) The Bedouin Women in Sajir

Regrettably, there was no systematic seeking of data about women, and from women in the questionnaire side of this work. This proved an important oversight as the interaction with bedouin households proceeded. The initial decision was made because it is a well known fact that bedouin women do not participate in the agricultural sector in the region of study. Even so, two reasons are now apparent for including them as a very important element in any study or analysis of

male-dominated economic activity. These are the following:

- 1 The exclusion of 50% of the labour force may be easy to identify by mere observation, but cannot be analysed, nor understood comprehensively without questioning the motivations and elements operative in this situation, in a manner that puts the agents (men and women) in a position of verbalisation and direct explanation. Intellectual speculation risks reflecting only the beliefs of the speaker (or writer).

- 2 The study of women in a traditional society, especially in this one, explains much more about the perceptions, attitudes and the objective situation of the dominant male orientated socio-economic system.

The reality of these premises was demonstrated intellectually and emotively to this researcher. Certain objective realities which prompted an intellectual and emotive stance, proved hasty and weakly supported with further observations and analysis in the field and from the literature. This hopefully will be demonstrated in the ensuing discussion.

From the start, the reasons for the images of bedouin women as victimised, passive and marginalized creatures became clear. The bedouin machismo operated at its full level, when talking about their women. They talked about them as ignorant, uncivilised ("unurbanised and bedouin" as it was expressed) and completely useless. The researcher's initial reaction was to half believe their stated opinions and to be dismayed, until the opportunity arose to observe the

interpersonal relationship between bedouin men and women, observe differences between them in demeanour and attitudes, and observe the actual role of women in the scheme of things.

Anthropological writers have seen women's role as being in the private sphere of the social world ⁽⁵¹⁾. While this may be a reasonable assessment, it appears to be accompanied by certain images of women's status, which are more arguable. These are the following:

- 1 The domestic world is not connected to the political arena of the social world. Decision making within this private sector affects only family matters, and domestic affairs.

- 2 Women's roles within the domestic sphere are characterised by inferiority to men's roles outside it, as well as by subservience and lack of power. Men, for example, will never perform women's roles, while women often take male roles, especially physical tasks, whenever the need arises. Women are also seen by their male counterparts as without sense (like children)⁽⁵²⁾. They have no status in the public arena, but are obliged to be supervised and to share the decision making process with men in the private one.

The underlying assumption in the above two images is this: Any role that women have in the private sphere is not connected to, nor influential in the political and economic sphere. These images and assumptions suffer to a great extent, from a male centrality in anthropological literature and traditions. It is hard to imagine that a group, who experience the same socialisation process, who have a measure of power within the domestic sphere, and who are interconnected

to the dominant groups by interdependent human and emotional feelings, have no effect whatsoever on the public and social world.

Anthropological material about "women and power" in the nomadic and sedentarised society informs us that women exert power by subversive means. They make and break men by gossip, by traditional patterns of praise or mockery (through songs and poems), and /or witchcraft ⁽⁵³⁾. Other means of indirect power on the part of women, are the roles they play in marriage alliances between groups, and the favourable or negative impressions they give to other households or groups through generosity, good hospitality and helpfulness, or the lack of these characteristics.

Cynthia Nelson outlines other areas where women's powers may be exerted. These are the social sphere, the attainment of religious status (or sainthood), influence over sons, and as inciters of courage and bravery in battles and situations of warfare⁽⁵⁴⁾.

In all the above legitimately constructed scenarios of women's power in different nomadic groups, the women's human capacity to exceed or be superior in a given social and economic structure is not emphasised. Women have equal opportunity to internalise the socialisation process (said to exist) of assertiveness, aggression and independence, even if this capacity is confined to the private sphere. If it does exist, there is no reason why it should not be recognised directly even when it is not openly acknowledged. There is no need to see women's power as solely exerted through indirect or subversive means. The social world of pastoralists and traditional society is limited by its nature; hence women's participation in it and knowledge of it can, in principle, be complete.

The physically overt separateness of men and women's worlds has given the impression that no real linkage can exist. Women disappear behind the veil, the tent and the domestic divide, yet they can have equal knowledge of the public world through their husbands, their sons and other women. Ethnocentric and male observers of traditional and nomadic societies have no means of bridging the gap that exists. The male agents in the society may experience women's power, but seldom acknowledge it publicly to other males in their society, let alone to strangers. Females also play a role in keeping this image intact. The internalisation of the place of women in the scheme of things does not allow women to overtly exercise authority or acknowledge it even to other women. It happens, therefore, that some men and women might see themselves as unusual (in terms of being more equal at home) in their interpersonal relationships and the roles they play in the private sphere. That is not to say that the men's superior economic and political positions do not act to exclude women from power and authority. It is just imperative that we recognise women as sometimes active agents in their social world, and not only through indirect means, but also in direct interaction.

Sedentarisation, on the whole, seems to be perceived as an element favouring the political and economic liberation of women in male dominated societies ⁽⁵⁵⁾. This happens through the amalgamation of the worlds of men and women, the opportunity for women to hold an economic and productive status outside the traditional sphere (agricultural and labouring jobs), and the ability of women to own and inherit assets (land, jewellery and money). Other changes include the interpersonal relationship between men and women in the family environment. Divorce becomes less easy, because men may fear loss of dowries and/or the incomes generated by women.

The sedentarisation of the bedouins in Sajir does not seem to conform to this scenario of women in the sedentarisation process. An overview of this researcher's observations of the reality of Sajir's bedouin women may be summarised as follows:

- 1 Women display more of the elements that are said to be integral to the "bedouin identity" than men. If not by direct assertiveness, then by a pride, a perceptible high level of individual worth, and self assurance.
- 2 The actual interpersonal interaction between men and women does not follow the set image of anthropologists, nor that specified by the male bedouins.
- 3 The women's social world is the arena in which the "traditional values" and the bedouin "ideology" seem to play their most potent role.
- 4 Women in the sedentarised groups lose whatever vestige of economic productivity they possessed in their traditional society. Women are slowly being marginalised and confined to a world of domestic tasks. The alleged process of liberation through productive activity outside the home does not seem to be allowed to proceed by the society at large, nor by the male dominated setting of rules and customs. The prosperous nature of this oil - subsidised society allows it to dispense with women's labour through the recruitment of foreign labour.
- 5 The Islamic rules which should regulate and monitor a basic

justice for women (in the area of inheritance, marriage and legal status), are constantly being violated by both men and women. Men do so because violations are to their advantage, while women accept these violations for themselves and their daughters (especially in marriage and inheritance).

- 6 Some vestiges of the expression of women's power (in the traditional sense) can be seen as being eroded by an integration within a society that not only separates male and female worlds, but also favours the man's development in the social, educational, economic and technological spheres. This uneven development results in women's inability to participate fully and adequately in their socio-economic environment. This may not be completely accomplished at this point in time, but will be soon realised in the coming generations of this society, if things remain as they are.

The actual demeanour and impact of bedouin women come in sharp contrast to the machoistic comments of bedouin men. On the whole they possess a high level of self-respect, dignity and feelings of individual worth. Their insular position in relation to an outside world which may erode their confidence, and their ability to still understand and participate in the present socio-economic system, which is still not entirely beyond their existing capacity, allows them to project themselves in a manner sometimes superior to their menfolk, overtly and covertly. The identity of the "bedouin" becomes more pronounced among women. Their reserved, unimpressed, and frankly superior demeanour pays homage to the pastoralist's individualistic independent and insular nature.

In observing the interaction between men and their wives, there was

always an even chance that women would play the dominant role in the interaction. This is because women are largely still on an equal footing with their husbands, when it comes to education or the ability to understand and experience the physical and social changes affecting their lives. Another element contributing, to this phenomenon is the tendency of men to marry often and to much younger women, or for first wives to be in touch with the outside world through their sons. Thus in a significant number of cases, when women were present during the interviews, they prompted answers, contradicted information, or apologised for their husband's faults in understanding and grasping certain concepts.

The way in which men and women interacted was also sometimes marked by mutual respect, affectionate rapport, or bantering insults. A man may say "teach this ignorant women something about civilisation" (hadharah or being urbanised), and the woman retorts by saying something about his age, his own lack of hadharah or his posturing comments.

The women in this bedouin society attain status through marriage, motherhood and the strength of certain bedouin traditional elements in the society, still wholly uneroded by the sedentary state. Women, for example, act as hosts to male strangers (a practice unthought of in sedentary societies) in the absence of their men. The hospitable nature of the bedouin does not allow isolated household units to turn away visitors. Young mothers in their thirties, accompanied by their young sons, will entertain a male visitor until the return of their husband. That is only possible for elderly and strong minded women in sedentary villages.

Motherhood, revered by Islam and Muslim societies, is a positive agent

within the institution of marriage (in discouraging divorce) and in the social world. Thus there was more respect and acceptance on the part of the bedouin men and women of this researcher when accompanied with her own children during the process of visiting farming households. Motherhood yields other advantages through the respect demanded from sons and daughters towards their mother (an Islamic commandment). Sons are a link to the public world, while daughters are a help in the domestic one. The marriages of these sons and daughters are also an arena in which women's power may be expressed.

There are, nonetheless, negative aspects of the traditional elements on the lives of women. Girl's education is an area in which negative traditions reign supreme, without affecting their brothers. Younger and unmarried daughters are closeted within the domestic sphere, without any of the traditional rights accorded to their mothers for the sake of honour and propriety. Bedouins in remote settlements and farms constantly told this researcher, that they would never send their daughters to school if it is not right in the hamlet or even on the farm. The fear is centred on the girls being exposed to unsavoury intentions and gossip and the questionable morality of the other groups' young men. I was told by an elderly head of an extended family that they had more than twenty females in their family, and they wanted a girl's school on the farm. Meanwhile the girls grow to the marriage age (15-16) having never had an opportunity to learn how to read or write in the school of the hamlet nearby (fifteen kilometers away).

By contrast the individualistic and segmentary nature of tribal society (expressed in rivalry and mistrust) does not seem to affect boys' education, or the economic aspirations of fathers and mothers for them. This does not exist only in bedouin society. Six girls in a sedentary

village were not allowed to go to teachers training school (three years diploma course after the ninth grade) by their fathers and mothers, because it is situated in a bedouin settlement. Younger women (married and unmarried) are also not expected to work in the traditional sphere, nor as teachers in girl's schools, unless there is a formal agreement from the family's authoritative head, i.e. father or husband. This is also operative in the cities and represents a new form of inequality for bedouin women.

Women's inability to perform modern economic functions because of traditions, coupled with the ability of the society to replace their labour, plus the significant changes in the economic sphere, all contribute to a gradual marginalisation of women. This is also reflected in the constant violations of women's Islamic rights in the society. For example, as was seen in chapter six, women are not acknowledged as part owners of land holdings through inheritance (a new form of inequality for bedouin women). The marriages and divorces of women are also influenced by the increase in incomes and the development of a monetary society. Men for example are now more likely to indulge themselves with more than one wife (a practice allowed but never encouraged in Islam). Fathers and daughters, moreover, are more likely to accept some unsuitable offers of marriage (already married elderly suitors), because of the economic status of the man. Young girls are also sometimes forced into marriages by their fathers (and mothers) because the dowry offered is high (although forced marriages are not allowed in Islam).

The right to be divorced without the agreement of the husband, is also sanctioned by Islam for women. This right was supported by the traditional practice of unhappy wives seeking the protection of their

own families or of respected elders in the community. Nowadays the economic burden of harbouring divorced women and their children seems to weigh heavily on fathers and brothers (as opposed to the conditions in a subsistence society). It is also unacceptable that unmarried women live alone (or with their children), even when they are self supporting. Divorce, therefore, is discouraged if it is initiated by the women themselves, and unhappy women remain in the marriage situation because of their families' pressure.

It is little wonder, then, that economic and political differentiation is fast becoming more pronounced between men and women generally in Saudi Arabia, and more particularly for the bedouins. These differentiations, which may have existed among previous generations, are more pronounced in this generation and are sure to reach heightened proportions among the young. Their ill effects are beginning to show themselves among young married and unmarried girls (for whom the social structure is most severe). Some signs of dissatisfaction were shown by this group by a tendency to have schooling and education as a permanent issue of discussion in their lives. The young wives (during visits to bedouin households), moreover, debated ways to preserve their single wife status, while others showed helplessness and frustration at being one of two or three wives, and/or their lack of education.

The moral in this profile of bedouin women in Sajir is not to completely rely on our own cultural and intellectual prejudices in assuming that women's role can only be analysed and understood by reference to the established images and literature. If anthropologists can argue that that the segmentary lineage ideology is an image, then we can argue that the extremely negative view of women in the nomadic traditional society is also an image, fostered by men and

uncontradicted by women. Sedentarisation, by the same token, must not be seen as a positive transformation for women by virtue of the process's direction towards a "modern" state of affairs.

Observing bedouin women has indicated to this researcher, that certain manifestations of the asserted ideologies (including bedouinism) are mostly tools to be used for particular purposes by the dominant social sectors (who happen to be mostly men in this case). Important elements of this analysis include the following:

1 The segmentation aspect of the social system, which encourages divisions and jealousies between the various sub-groups, seems not to affect the education nor the development of the male children of the bedouin families. On the other hand, it operates fully in the case of the females who are increasingly being displaced within the productive structure.

2 Only certain aspects of the modern social system, which derive their legitimacy from the Islamic ideology, as well as the new levels of affluence, are activated in the issues relating to women. This, coupled with the afore mentioned element of the bedouin ideology, results in a diminishing female role in the present society, and an increasing inequality of women which cannot be legitimized by Islam nor by traditions (e.g in regard to marriage, inheritance, education and economic marginalisation).

5) Comparative Elements Between the Sedentary and Bedouin Farming Communities

Twenty five interviews were conducted in the sedentary village of Al-Burud in Asser, which covered almost all the farming households in this village. Twenty three interviews were completed, while two farmers chose to conclude the encounter before reaching the end of the interview. The sedentary village is intimately known to this researcher, because it is her village of origin, as well as the base during the fieldwork period. Certain features were immediately recognised as differing from the data obtained in Sajir. These are the following:

- A Only three of the farmers interviewed in Al-Burud owned their land collectively: with brothers in two cases, and sons and brothers in the third case. All the rest were heads of nuclear families.

- B Landownership is more markedly differentiated among the sedentary farmers. The large owners owned more land than the ones in the bedouin community, mainly because they were more actively involved in cultivation and the revivification of agricultural land. The middle group of owners were substantially fewer than the bedouin middle group of owners in Sajir. The sizes of land owned by the small holders are also substantially smaller than the farming lands owned by the small owners in Sajir.

- C Inheritance, revivification of barren lands, and grants (through the Amir) from the Ministry of Agriculture's Public Land Distribution Section, were the means by which landholdings were obtained. The largeholders were inheritors , and also largely prosperous farmers of the

elite of the village, who could afford to revive and cultivate virgin areas, previously uncultivated traditionally.

- D Differentiation in economic status (land ownership and agricultural incomes) can sometimes cut across the same family. Brothers may be in completely different categories of economic status depending on education, employment and/or the opportunity to cultivate and revive land as early as possible in this time of agricultural boom. By contrast, the Sajirans were mostly extended family owners.

In the framework of this chapter, the data shows that these farmers were a great deal better versed when it comes to perceptions of problems and proposed solutions to these problems. Whether or not they differ greatly in their essential outlook will be seen below. The results of interview in this section of the questionnaire are the following:

1 Perceptions of Problems: As before with bedouin farmers "marketing and distribution" and "water shortages" came top of the list of problems. A related problem to "marketing and distribution", namely "competition faced from foreign produce", was cited up by three farmers as the major problem facing farmers in the region. Two farmers only (the same number as among the bedouin farmers) identified lack of their own agricultural skill as the major problem in the region.

2 Comments on Farmers' Skill and Training: More of the sedentary farmers commented on skill and training problems. More than half (13 farmers) said "yes, that is a problem", while only eleven out of 38 of

the bedouin farmers identified it as such.

3 Perceptions of Control: The data showed some interesting differences between these sedentary farmers and their counterparts in Sajir, as regards perception of the degree of control. The sedentary were divided thus:

No Control	7
Complete Control	3
Uneven Partial Control	11
Yes if you are rich	2

23

In referring to table 8.2, it became obvious that sedentary farmers are more likely to see themselves as in control of their farming activities, and its related problems. This could be a reflection of their long experience, and the degree of thought and contemplation which they chose to devote to this section of the questionnaire.

4 Proposals for Solutions: Here again "action by the state agencies" was put as the only solution, by the majority of the interviewed farmers:

Action by state's agencies	18
Action by farmers	3
I do not know	2

At first glance this seems a contradiction to their previous perceptions of control. It may, however, be due to their conviction that they are on top of all problems within their control, and that

what remains to be solved can be only solved by state action. Farming co-operatives were also mentioned by more farmers in Al-Burud than in Sajir (about half the interviewees), while at the the same time emphasising state action.

5 Self Identification: Naturally, most of the farmers in Al-Burud identified themselves as farmers. There are, however, some interesting differences from bedouin farmers in Sajir. Self identification ran as follows :

Farmer (Mozaraa):	14
Farmer (Falah):	3
Businessman:	2
Businessman & Farmer:	1
Unemployed Farmer:	1
Farmer & Employee:	1
Livestock Breeder:	1
	<hr/>
Total	23

The farmers who identified themselves as peasant farmers or Falah, said they come from a long line of Falalih (plural of Falah). The unemployed farmer was a share cropper previously but is not able to find work since the agricultural boom, given the prevalence of foreign agricultural workers. Since he does not own land, he is living on a piece of land donated to him by a prosperous farmer in Al-Burud, but this land is so small, that he only cultivates for household consumption. The livestock breeder is of bedouin origins (settled in the villages, even before the Al-Ikhwan movement), he owns a small piece of land (0.5 ha) and concentrates on animals.

From the above it seems obvious that sedentary farmers do not have any strong tension between the farming side of their livelihood and other areas (more than half were also employed as teachers or civil servants, in the region, or in Riyadh). Differentiation within Al-Burud is more obvious than it is among the bedouin farmers, and can be easily recognised.

6 Commitment to Farming: The sedentary farmers were clearer in their answer to the question about the type of action in case of reduction in agricultural incomes. The answers were as follows:

I will keep on farming as long as I can:	11
Leave completely:	4
Augment my income from other activities:	7
I was forced to leave farming:	1
(the sharecropper)	_____
TOTAL	23

Commitment to farming was as high in this group as it was among bedouins in Sajir. It was interesting to find four farmers unequivocally stating their intentions to leave farming. Their reason for this choice was to explain that farming is transitory in their lives, and that as employees they could handle payments to SAAB, or perhaps sell the farm. By contrast, losing the farm was not on the agenda for most of the bedouin farmers, because the farm is a reaffirmation of their sedentary state and a place for them and their animals (symbolically as well as realistically for some).

7 Options for Alternative Livelihood: There was a marked difference between this group of farmers and the bedouins of Sajir, when it came

to perceptions of options (which in turn reflect their respective situations). The options for the sedentary farmers were as follows:

1 - None:	7
2 - Business and commercial activities:	6
3 - Employment:	7
4 - Unskilled work (driving, work in garage):	2
5 - Date palm cultivation and livestock:	1
	<hr/>
Total	23

Modern sector options figured more among this group. Livestock breeding was not perceived as important in the farming activities among the sedentary. Around 30 percent saw no other option to farming, which is not much different to the 29 percent of the bedouin farmers (see table 8.8). This seems to support the notion that there is not a basic difference between how sedentary farmers and bedouin farmers go about conducting their household economy. Both groups are multi-resource economies. The difference lies in what other resources they are also engaged in. While the bedouin farmers tended to look to livestock breeding as an option, the sedentaries look to employment and commercial activities, in which they are more experienced. This is a big difference, but both options are rooted in economic rather than ideological differences.

8 Aspirations for Children: Again here there was no difference between this group of farmers, and their counterparts in Sajir, at least regarding sons. Education was high on the list of aspirations for the children. When it came to whether or not they wanted them to

keep on farming, most said no. Their answers were as follows:

No:	16
Yes:	4
Employment with farming:	2

The four who said yes were prosperous farmers with successful cultivation practice. They expressed a desire not to have their own efforts wasted by the abandonment of farming by the next generation. Employment through education was the most frequently expressed desire for children. A small number wanted them to go into business and commercial activities.

A maximum education for girls (up till teaching diplomas) was also expressed as desirable by those in Al-Burud, unlike the bedouins in Sajir.

Conclusion

If we consider the data from the last section of this chapter, we could say that there is no valid reason to suppose that there are basic differences in the attitudes and perceptions of the bedouin farmers towards the farming operation, merely because of their positions as bedouins or sedentarised pastoralists. There was a significant similarity between the two groups in their perceptions of problems, proposed solutions and the level of the commitment to the farming enterprise. Both groups generally perceived the following:

- 1 The two major problems of farming at present are marketing and distribution of crops (other than wheat), as well as the

water shortages experienced by the farmers in the region. Neither group perceived any major problematical issues in the farming operation conducted by themselves personally. The labour issue in particular did not worry most of the bedouin and sedentary farmers. Skill and training, furthermore, were low on the agenda of both groups.

- 2 Both groups showed the characteristic of seeing themselves as largely dependent on the state for the solution of their problems in farming, and a tendency to identify "others" as responsible for improving the situation.
- 3 Both showed the same level of commitment to farming in relation to themselves, but not as a future prospect for their children. Their own commitment was derived from the perceived high level of investment they had already put into farming and the resulting financial burdens. That kind of commitment, however, was perceived as totally unacceptable for their sons.

However, the bedouin and the sedentary farmers differed in the following elements:

- 1 The sedentaries showed a higher level of perception of control over farming issues. This may be due to their longer experience of farming, their less vulnerable status towards the new patterns of production (due to better education and longer experience of the modern sector), or because farming (and the ownership of land) does not mean a symbolic, realistic and risky transformation to new forms of livelihood

(as in the case of bedouins), which offer more than an improvement in income. The bedouin as a group would therefore feel more dependent on what is being offered, especially when they fully appreciate the situation. This higher dependency leads to perceptions of less control.

- 2 The perceptions of other options to a farming livelihood were naturally different between the sedentaries and the bedouins. The bedouin emphasised livestock breeding as an open option, while modern sector options figured more among the sedentaries. The implications of such differing options are major; but they also seem to spring from economic elements, rather than ideological ones. This is because whenever individual bedouins perceived themselves as able to successfully move away from the traditional occupation (in relation to their economic status), they would gladly do so. This was also reflected in their aspirations for their children. None said that they wished their sons to pursue pastoralism or livestock breeding. This latter tendency was especially true of the more successful bedouin farmers (see table 8.8).

We can therefore safely conclude that the ideology associated with bedouinism has little or no bearing on the bedouin's perceptions, attitudes and evaluation of their dominant economic activity (farming). This is supported by the lack of association between the tribal identity, group and leaders, and the stated perceptions of farming itself. Lineage corporateness and self help had been superseded in this case by the relationship of the individual to the centre, and the relations of production within the agricultural sector.

Bedouinism, however, operates at two levels among Al-Hanatish in Sajir: as an asserted ideology, and as an economic activity. Bedouinism as an asserted ideology operates more effectively among the more sedentarised bedouins. For them the ideology is activated whenever needed. Reasons for its activation include:

- A) When it is capable of yielding an advantage to the individual, as in the area of land distribution or as a positive self image. It also retains a needed level of social identification and cohesiveness within the group. This can be seen in the case of sedentarized bedouin groups moving to Sajir in the 1970s (see chapter 5).
- B) In uncertain situations, when the bedouins are unsure of their status or position in non - traditional economic situations. This is particularly seen among the less successful farmers. Even when these did not own animals, they perceived livestock as a possible future prospect.
- C) When the maintenance of certain facets of the ideological system does not interfere with, or even complements, the social and economical development of the bedouin group. The situation of women is a clear example. For girls the unco-operative aspect of tribalism (as regards education) was retained, while it did not affect their brothers. This is because males are more important economically to the household, and also because such restriction complements the changing roles of women in the modern economic system of

production. The same can be said to exist among rich bedouin farmers, who keep large animal herds, because they do not interfere with the dominant household economy, and are tended by hired labour.

By contrast, bedouinism as a dominant economic activity is found among the short distance pastoralists (see chapter 5) in Sajir, and among the most recent settlers, who do not concentrate on the farming aspect of their household economy (see chapter 6), or are actively engaged in pastoral behaviour (see chapter 7). Admittedly this group is not widely represented in the sample. We can, however, conclude tentatively from the data of this chapter that their commitment to settlement is not at all affected by their experience of agriculture. Keeping the farming land was high on the agenda for the bedouins, even when they showed little commitment to cultivation. Only two said that they would leave farming completely.

The above could be because the resources available are not contradictory to settled livestock breeding (large plots of lands, grazing deserts nearby). This is of course reflective of the changing face of pastoralism (see chapter 5), to a pattern not dependent wholly on the traditional characteristics like migration and the total commitment of the household labour to animal breeding. The question remains, however, whether those partially committed to pastoralism now are in fact the ones to create the future modern animal husbandry in Saudi Arabia. The present commitment of the fathers must be weighed against their aspiration for their children (education and government employment), the actual training the children receive, and the future economic prospects for these groups in the modern economy.

Two final comments at this point. First, there was no felt need among the farmers to pursue an occupation perceived to be a component of the ideological heritage. Rather, perceptions of the options open were in fact based on personal experience and ability. Second, both the sedentary and bedouin farmers would be more committed to farming, provided that the best possible objective conditions are created. This latter point will be pursued further in the final conclusions of this study.

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Conclusion

It is time that the various strands of argument and analysis in this study are brought into focus, and hopefully woven into a larger whole. This was only partly done in the previous chapter (as regards bedouinism), and will continue in this final part. However, due to the large number of issues actually tackled by the various parts of the study, this section will begin by focusing on the particular important issues and then progress into placing the studied community into a larger perspective.

On the Theoretical Status of the Saudi Nomadic (and Bedouin) Sector:

The Saudi nomadic and bedouin sector must be viewed as an integral (and indivisible) part of the "modern" Saudi nation, both politically, economically and socially. This is not only in terms of the bedouin being either integrated within, or influenced by national factors; but also in terms of the bedouin sector having been an important and influential element in the process of creating the national political and social identity. This view is not only justified by the theoretical stance adopted by chapter one, in which the nomads were conceptualized as an integral part of their regional setting, or by the view advocated by the anthropologists studying Middle Eastern nomadic societies (see chapter one). It is rather a view mostly promoted by the study of the Saudi Social formation, both in pre-state times, during the formation of the modern central state, and even in the present circumstances of the nation at large.

1. In pre-state society:

Most of the important traditional elements of the society in the Peninsula, prior to centralized conditions, could be placed on a continuum that extended from the nomadic pastoral sector (the bedu), through to sedentary farmers (hadhar) and even to the urban sector. Let us take the example of the factors constituting the tribal system, the basic social structure of the Peninsula's society. Blood ties and descent constituted the social basis in all three sectors. Nobility of the tribe, furthermore, was a function of its pure descent, its military prowess, and its size in terms of membership and territorial occupation (see chapter 2).

The deciding factor was mostly the economic occupation of the tribe. Nomadic camel herding tribes by virtue of their economic occupation were most isolated, most in need of territorial space and therefore of the military organisation to control it (Khazanove, chapter 1). Other factors, undoubtedly, were also operative in determining the status of the tribe, like control of major resources (be it pastoral or sedentary), alliances between tribal structures, and/or the support of outside powers. Nonetheless, within the interior of the Peninsula, the large nomadic tribes tended to be the most prominent politically and socially.

The associated characteristics of tribalism like cohesiveness, political and territorial organization and independence could also be conceived of as differing only in degrees between the purely nomadic to the purely sedentary tribes. Cohesiveness was of course strongest in the more isolated, purely nomadic tribes, broke down slightly in more

sedentarized conditions, and became manifested in cohesive neighbourhood communities within urban structures (see chapter two). Territorially, the nomadic tribes kept dirah for their exclusive use and protected them against all others. The villagers, similarly, kept hemma around their settlement, and also utilized it collectively (for grazing) and to the exclusion of others (see chapter 4).

The political leadership, moreover, was similar in sedentary and nomadic conditions, i.e. hereditary sheikly families with the paramount leaders from these families chosen for their personality, ability and skill (leadership not necessarily passed from father to son). Those leaders, furthermore, relied heavily on the consultation and support of the other notables within the tribe. In other words, the tribal leadership in nomadic and sedentary tribes followed the principles specified by the segmentary system, being more fluid among the nomadic tribes and more rigid and structured in sedentary conditions (sedentary leaders, called Amirs, are mostly from powerful nomadic tribes and were interlinked with territorial control). Hence the basis of the tribal structure of descent and kinship remained constant in the customary, subsistence based, productive systems in the peninsula (i.e. nomadism and agriculture), while the associated characteristics varied only in degrees and not in essence.

In addition to sharing one (Arab Moslem) culture and a similar social system, there was a marked integration between nomads and sedentaries on two levels: a) a tribe may be divided into sedentary and nomadic sections, while sharing the same social tribal identity; and b) there is political and economic integration between divided tribal units, and

even between nomadic tribes and urban centres. This high level of integration was emphasised by most anthropologists concerned with Middle Eastern nomadic communities like Nelson, Gellner, Mohammed and Barth, and was spelled out by Cole specifically on the Saudi nomads (see chapter two). This regional integration, undoubtedly, was strengthened by the emergence of the central national authority, which became an ever-present unifying force and a source for shared experiences of change (politically, ideologically and economically) for the bedouins and the rest of the population.

2. During the creation of the modern state

To reiterate the bedouin's military role in the creation of the Saudi central government also at this point is rather an exercise in stating the obvious. Nonetheless, the strength of this role has to be restated, along with other important factors. The bedouin's integration in this national process may be summarised as follows:-

1. The bedouins had major military roles in the creation of the Saudi state. This role lasted from 1912 to 1930 and resulted in the unification of the far reaches of the Kingdom, especially the all important western region with its holy cities of Meccah and Madinah. Despite the fact that many writers have stressed that the support of the volatile bedouin warriors has not been the backbone of Ibn Saud's strength (he relied more heavily on the steady and staunch support of the urban and sedentary populations), the bedouin mobile army was the only viable instrument for spreading Al-Saud's authority over hostile urban centres in the east

and west, and the widely dispersed nomadic and rural population. Their fanatical zeal for the Wahabi ideology surpassed any similar tendency among the sedentaries, and struck fear among the superior military powers in the west of the Peninsula (Sharif Hussain's forces in Meccah).

2. In addition to this strong bedouin military involvement in the process of state building, the bedouin can be seen as integrated into the process through two other means. A) Ideologically as well as factually, the bedouins' social system represents the purest and most dynamic and effective of the traditional heritages in the Peninsula, i.e. the qabilah or the tribal social system. This social system, moreover, among the bedouins could not be completely overcome by their adoption of the Wahabi ideology (see chapter two). As such, and because they represent a sizable percentage of the Saudi population, they remained for a long period an embodiment of a real and important traditional force, which had to be reckoned with by the new state.

B) Their fanatical adoption of the Wahabi unitarian faith, and the manifestation of this involvement in the Ikhwan movement and army led to i) the strengthening of the movement which was first started by, and among, the sedentaries, and ii) an association of the bedouins with the most restrictive representations of this revivalist Islamic Ideology, especially after the Ikhwan revolt (1928 - 1930) which was fought over some of Ibn Saud's association with non - Moslems (and non - Wahabis), and his introduction of modern innovations (radio, telegraph, etc).

Despite the dispersal and defeat of the (bedouin) Ikhwan's most effective political and military forces, and the triumph of the sedentary version of the wahabi ideology, the bedouin tribal population remained a reason and a focus for political and economic policies by the now firmly established Saudi state. These policies were on two levels. The first dealt with maintaining a politically harmless tribal structure, which continues to recognize the legitimacy of the traditional system. In doing so, the extremely traditional population are not antagonized, and the state maintains the part of its legitimacy that is derived from its essentially traditional character. The second level of these policies was instrumental in the gradual erosion of the basic premises of the traditional existence in its most dynamic form (ie. pastoral nomadism, an effective tribal leadership, cohesiveness, etc).

The above policies included the incorporation of major tribal political leaderships (sedentary and bedouin) into the state structure. This was in order to neutralize their effectiveness within the traditional sector, and among those still recognising their authority (like pastoralists, semi pastoralists and even some settled tribals). Other policies were designed to remove the basic economic functions of the tribe as a social organisation, by abolishing the dirah and hemma systems, and encouraging settlement and agricultural production among the nomads. Finally, there were policies that either ensured (or did not oppose) a process of maintaining a degree of viability for the tribe as a social organisation, with a leadership that is still viable to a certain degree.

This latter process was been mainly operative among the rural population, who remained mostly traditionally organised (socially and economically) until the 1970s. It is, furthermore, a process often forgotten by most of the commentators on the Saudi urban based developments and social change. It is usually manifested in most villages and almost all of the bedouin settlements being essentially organised on a tribal basis, with lineages or tribal units settling separate locations with their own traditional leaders assuming administrative status. Most of these leaders, furthermore, were granted economic power to administer and distribute the resources exclusively among their tribal kin, particularly the land resources essential for agriculture.

Even when an official traditional land grant (Iqta) was not given to the traditional leaders (because of their modest status or the less than large size of their community), their administrative position conferred upon them a favourable position in relation to the resources (particularly before the PLDO). This heightened their position in (and outside) their community, as well as allowing them to acquire an economic position that was favourable to an easier incorporation within the modern agricultural sector of the later 1970s and the 1980s.

Thus tribal leadership assumed an administrative and elitist position in rural communities, which originated from the position of mutual support between the traditional leadership and the state structure. This mutual support may have not been by design in all cases; but it is always the result of the strength of the essentially traditional

character of the state and society, and the absence of any legitimate modern and countervailing political force within the state's structure which could reduce the need for its traditional legitimacy.

To return to the original point: the process of keeping a degree of viability for the tribe as a social organisation has been operative, relatively speaking, frequently among the bedouin sector and among the rural population, because of their greater degree of involvement with the traditional elements of the society, and the greater need: a) to incorporate them nationally through their leaders and in a settled state, and b) not to antagonize them by a markedly differing organisational structure.

3. Present-day society

The bedouin sector has become, since the gradual transformation of the Saudi society, even more integrated within the national setting. This is because the 1940s up to the 1960s had witnessed a rapid rise in bedouin sedentarization due to two elements: a) the increased economic opportunities for wage labour outside pastoralism (in the oil industry, military institutions, and unskilled labouring jobs), and b) the periods of drought affecting the peninsula during the 1950s and the 1960s, which forced large numbers of pastoralists to turn to sedentary production. The 1970s and the 1980s, furthermore, have seen rapid economic transformation of the rural economy which brought the bedouins (be they nomadic or settled) into closer association with the social and economic changes already experienced by the Saudi urban sector.

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One of the early features of the present bedouin integration has been in its continued role as a military force for the state (Cole, chapter two). This has occurred through three means: i) As a continuation of the Ikhwan army. The remnants of the Ikhwans were briefly organised into the White Army, which later became known (and grew) as the National Guard. ii) As a result of the alliance between the bedouin tribal leaderships and the state, which ensured the loyalties of the bedouins through their leaders. This alliance was manifested in the continued sponsorship of important tribal units (by gifts, subsidies and grants), through an extensive network of interrelationships either through marriage, easy access to the rulers, or by the tribal leaders assuming administrative positions in their areas. Another important form of alliance was through tribal leaders becoming section leaders of reserve National Guard units, which were staffed by male members of the leader's tribal unit. Finally: iii) Military employment, particularly in the National Guard, has been the major form of viable employment for the poor, uneducated and unskilled nomads who wished to settle. It assured them of a wage packet, and allowed them to gain entry into the settled modern sector.

Another important feature of the bedouin integration in today's Saudi Arabia has been through a definitive transformation of the sector's

access to resources. The land reforms which started in 1925 (a law abolishing the dirah system), culminated in the Public Land Distribution Ordinance of 1968. This latter ordinance amounted to a juridical intervention in the rural land resources, which was capable of altering the tribe's system of economic integration. It changed, once and for all, land utilisation and appropriation among the bedouins from its traditional collective nature to an individual and private one. This in turn encouraged cultivation among the bedouins and a form of animal husbandry that is in keeping with sedentary conditions (sheep herding).

Land distribution, moreover, introduced a greater level of economic and social differentiation among the bedouin communities (similar to those among sedentaries and hadhar). This was true in both of the two systems of distribution - Iqta (traditional) and PLDO (administrative), because both had differential approaches to distribution. In the Iqta case, nepotism and the relationship to the tribal leader were the bases for differentiation; while in the PLDO case, differentiation was mostly between ordinary traditional farmers and large commercial agricultural ventures, i.e. economically capable farmers or urban based capital (see chapter four). This process of transformation and differentiation has dealt a decisive blow to the internal economic integration and cohesiveness associated with the tribal social system and nomadism, and has brought the mainly traditionally organised communities into closer proximity to the sedentary forms of production and social differentiation.

The most recent phase of economic transformation in the rural economy has been through the agricultural developments of the 1970s. These

developments sought to increase growth, output and agricultural income through introducing advanced technology and more "modern" relations of production. This came about through a generous system of agricultural subsidization, non-interest loans and a price support for wheat. The agricultural policies of the latter years of the 1970s resulted in a radical transformation of agricultural production, but it did not introduce any substantial improvements to the marketing of agricultural goods, nor to the indigenous labour and skill resources of the sector.

The end result for the bedouins has been to further distance those settled and semi-settled from the conditions prevalent in the traditional occupations (pastoralism, semi-pastoralism), as well as from the conditions of production in traditional sedentary farming. These previous conditions had characterized production (i.e. subsistence), and helped in moulding the bedouin way of life. The improved conditions in agriculture, and the high level of agricultural income, especially from wheat cultivation, acted as an encouragement for entering the sector, and for abandoning animal husbandry if that had not yet occurred. The methods and patterns of production, moreover, encouraged a dependency on newer forms and relations of production like single cash crops, the recruiting of farm labour (often foreign), and a very close involvement with the market and the national agricultural services.

The above important developments came on top of two previous ones (mentioned briefly above), i.e. the impoverishment of the Saudi nomads during the periods of droughts in the 1950s and the 1960s, and the opening up of other areas of gainful employment for the bedouins

outside pastoralism. These early happenings disposed the nomads toward settlement, but it also allowed them to keep one foot in their traditional occupation either through semi-nomadic activities in their Hujar or by subsidizing pastoralism with the wage packet. The later developments, i.e. the land reforms and distribution policies and the agricultural policies, had a dynamic that acts within the rural sector and changes the bedouins' relationship to the resources and to the productive activities.

To summarize the argument thus far regarding the nomads' status within Saudi society, we could say that the nomadic sector has been essentially a powerful cornerstone of the traditional society, an important and influential element in the structuring of the new Saudi state and society, and mostly a dependent sector in the political and economic circumstances of the present society. In other words the sector has lost most of its importance, but has remained thoroughly integrated with the other systems of production.

This integration, moreover, has been a function of i) the nature of the relationship between the sector and other productive systems (i.e. a similarity of culture and social organization), ii) official policies that seek to curb the independence of the sector and to amalgamate the nomads (i.e. land reforms and political and economic strategies), and iii) the nature of the developments and responses within the sector, like the status of the present tribal leadership, the adverse natural and economic circumstances experienced by the sector, and its less than favourable status in comparison to the modern, oil subsidized, economy. These latter factors had encouraged the bedouin nomads to settle in droves at different stages in Saudi history, and in doing so they have weakened the sector further in the present society.

From the above it is clear that the bedouins (i.e. those from nomadic origins, be they previous or present) could not be viewed in the same way that we have considered the nomadic sector. This is because the bedouins do not have a uniform history of settlement and integration, nor do they possess a uniform status in the present society. This later point will be explored further when bedouinism is discussed.

On the Sedentarization and the "Detribalization" Process

In chapter two, this study made a conceptual distinction between tribalism as a phenomenon and pastoral nomadism (i.e. al-badawah) in the desert regions of the Peninsula. Similarly bedouinism, as it is commonly perceived at present, has been identified as a wide (or large) social category which incorporates several productive activities - pastoralism, semi pastoralism and sedentary production among settled communities from nomadic tribes.

Tribalism, as was stated time and again previously, is an encompassing social system which extends beyond the boundaries of single productive activities, and single social categories (the relationship of bedouinism to tribalism will be re-stated below). This system, furthermore, had been the basis of the traditional society of the Peninsula, and an influential political element during the formation of the Saudi social structure; and it remains a socially significant consideration within the present Saudi society, even among the urban population who are engaged in modern sector production (see chapter two).

We cannot, therefore, equate a detribalization process with the sedentarization of nomads. The two phenomena are theoretically independent of each other, but are likely to meet in practice in particular situations and at certain levels. For example, the land reforms and distribution policies are important parts of a detribalization policy, in so far as they are designed to remove the economic component of the tribe as a social organisation and as a regulator of the agricultural and grazing land resources.

This important ingredient of the detribalization process, however, can be (and has been) counteracted by another official policy which bestows traditional Iqta (land grant) to particular tribal leaders for the purpose of distributing it among their people. The system of tribalism, therefore, is not fully challenged in those cases of land distribution; but it is modified to perform two functions: a) render the internal tribal authority secondary to the state authority, which sanctioned the official Iqta, and b) endorse the desired result of changing the mode of access to the resources, i.e. private instead of collective and sedentary rather than nomadic.

Thus we find that tribal exclusivity and social integration are partially retained among the settling nomads enjoying the benefits of the Iqta form of the land distribution. Other nomadic groups, on the other hand, are faced with the full implication of this policy of detribalization within an urban setting, or even in their designated place of settlement.

The same argument can be constructed for the balancing act employed to

gain an equilibrium between a recognizably strong central authority, and a traditional population with an internal tribal leadership that is still seen as legitimate. By promoting the position of the tribal leaders within their units - through administrative positions, some economic power, and as an important link to the power structure (i.e. to the ruling family and the central authority) - the state ensures that the political tribal system is modified to promote the following: a) the loyalty of the influential tribal leaders, and subsequently the loyalty of their people; b) a measure of control over the dispersed, rurally based, traditional population; and c) the elimination of an effective dynamic tribal leadership, or of the tribe as a political organization.

Again in the above arrangements tribalism as a system is not fully challenged, but it is manipulated for particular results. So even though the central authority has gathered all the relevant political authority to its self, it has retained enough of the traditional structure to ensure traditional loyalty, and the legitimacy it derives from being an essentially traditional governing body for a traditional population. Sedentarization of the nomads under the above conditions, therefore, does not signify a full detribalization of the bedouin settling community.

Some circumstances of sedentarization, however, may mean a drastic break from the tribal conditions of the traditional livelihood. The individual settlement of bedouin families, or small tribal units in and around urban centres can mean a total break from the significant areas of tribal relations. The settling nomads in this case are entering a modern sector of the economy (mainly waged work), and come under the

full impact of its political and state organisations. Socially, they are isolated from their all inclusive tribal organisation and therefore from the cohesiveness and integration associated with it.

Nonetheless, the tribal identity of the sedentarizing nomads and their bedouinism (i.e. their association with a nomadic tribe and a pastoral way of life) remain alive and operative among the settlers in urban centres, as is the case with the hadhar tribals whose tribal affiliation is a source of pride and identity. In these cases of sedentarization, tribalism becomes only an ideological factor that is devoid of any real political and economic effectiveness. The retaining of the ideological component of tribalism, however, is not without its own effectiveness, or beyond any real power as will be argued later.

Thus far, we might conclude that the sedentarization process cannot be regarded as equivalent to a detribalizing process among the nomads, who represent the strongest and the purest form of tribalism in Saudi society. The two processes could meet at some levels and in particular situations, but are mostly independent of each other. That, however, does not answer the questions of whether or not there is a "detribalizing policy", nor does it identify the force and impetus for the detribalization process (see introduction).

To attempt a comprehensive answer to the above two questions (i.e. is there a detribalizing policy? and what is the impetus for the detribalization process?) the relevant factors will be listed briefly:

1. The Saudi policies have been to remove any effective and dynamic elements of the traditional heritage, which may prove

to be a challenge to the centralization of authority and to state control. These policies included removing the economic function of the tribe as a regulator of resources, as well as stripping it of its political function (by incorporating the tribal leadership into the state structure). Finally, state policies sought to incorporate the nomadic sector (the most dynamic of the tribal organizations) within the rural sedentary economy, which is characterized by fixed resources and a less independent productive system.

2. On the other hand, the policies have ensured that the structure of tribalism is not fully eliminated. Some very relevant analyses of the Saudi political system (see chapter two) have stressed the alliance between the traditional forces and the modern ones (Niblock), and the political role that the tribal leaders have assumed in the early political development of Saudi society (Abir). This role, however, is perceived as having been greatly diminished as the Saudi regime had gained strength, and as its administrative body had developed and modernized itself.

3. Chapter four and the later chapters of this thesis, however, have stressed that the Saudi rural society and economy had remained traditional (in organization and production) at least until the beginning of the previous decade. Chapters three, and five to eight have also shown in practice two very important facts:

A) The tribal system still exerts very considerable influence over the people of the region. This is seen

in how different settlements organize themselves socially, and administratively, as well as in their initial access to the resources (Iqta through the tribal Amir).

- B) The rapid changes and economic and social development experienced in the region are creating strong currents of transformation, which are gradually (or perhaps rapidly) eroding and sweeping aside all of the important associated characteristics of the traditional life. So nomadism and pastoralism are no longer the important productive activities they were previously among the bedouins, nor does subsistence and traditional agriculture dominate sedentary production.
- C) Furthermore, the cohesiveness and social integration which might be initially strengthened by the traditional social organization of the settlers and villages are also being affected and eroded by the newly created relations of production and economic structures, especially in the dominant activity of agriculture. The new forms of domestic economy, furthermore, have been instrumental in encouraging powerful new types of social differentiation which are based on landownership, cultivation size, employment and all the other indicators of economic status.
- D) Finally, the training and education that the younger generation receive and the kind of aspirations that

adults have for their children (especially sons) are not in keeping with the ideological principles propagating the continued existence of a dominant traditional society.

The above, quickly sketched, elements in the argument may be added to this researcher's conceptualization of a "detrribalizing policy" as a deliberate attempt at the total eradication of the tribal social system, by a political and economic structure totally different from that of tribalism. This has been the case for the detrribalisation process in Africa and parts of the Middle East (ie Turkey and Iran). In Saudi Arabia, however, this has not been the case.

The policies employed by the Saudi state can not be called, therefore, an attempt at the eradication of the tribal social system; nor are the state structures and the general society radically opposed, in principle, to what is commonly perceived as the embodiment of the tribal existence (nomadic tribes). In fact the ideals and ethos of al-badawah and the social system of kinship and descent are still hailed throughout the society, while most of the Saudi population still retain an identity partially derived from their tribal affiliation.

We must, therefore, reach the conclusion that the policies themselves were only designed to contain tribalism in a harmless social structure devoid from its political and economic dynamism, and not potentially dangerous to the central authority. Furthermore, the retaining of the surface social dynamism of tribalism, i.e. in social organization (residentially and administratively in the rural sector, and

ideologically in the urban sector), and a small measure of economic and political viability for the tribe (the tribal leadership as the rural administrator, and the defacto exclusive tribal access to the agricultural resources), amounts in reality to partially retaining tribalism without its redeeming characteristics which encourage group cooperation, collective productivity, integration and social cohesiveness (at least within the tribe).

Retaining the social aspect of tribalism, furthermore, amounts to another form of differentiation and prejudice in the new society: between tribals and non tribals, noble tribes and humble ones, rich politically incorporated tribal units and isolated impoverished ones, as well as nepotism and political and economic inequality. Within the tribe itself, the process has also lead to competition between lineage mates, increased jealousies between tribal units, a high degree of unco-operative behaviour, and finally to new forms of political and economic differentiation.

This has been indicated strongly in the studied region between units of the same lineage, clan and tribe. It has also been displayed between the sedentary tribals and the bedouin ones, and between the different settlements and hamlets of Utaibah. If we add this study's observation to those of Ibrahim and Cole (1978) on the ascendancy of the non - cooperative manifestations of tribalism in Saudi society (see chapter eight) among the bedouins they have studied, we may safely conclude that the positive integrative force of the traditional society has effectively been replaced by the integrative and authoritative capacity of the central organizations; while the negative force of tribalism (i.e. fission and divisions) has been retained and fostered by the Saudi tendency to keep the surface social manifestation of the traditional society.

The previous argument, however, does not negate the fact that there is a gradual process of detribalization occurring in the Saudi society, of which the above development is but one of the symptoms. The strongest impetus of this process, however, is not the political policies of the state, nor is it the early economic reforms like abolishing the dirah system and theoretically altering the access to the resources (although they may be regarded as the first steps). The real detribalizing impetus can be seen in the actual economic and social transformation of the society, which helped to minimize the effectiveness of the traditional forces and factors, and replaced them with a new set of economic forces with its own set of social factors. Naturally, this has happened gradually in the Saudi society and it has become apparent earlier in the urban modern sector; while the rural, more tradition bound economy had to await the oil price increase of the 1970s and the concentrated efforts of the state.

However, the process of transformation in the rural economy could only start after the basic principles for the potential change had been established, i.e. the land reforms, the administrative changes and the incorporation of the nomadic sector. The detribalization process, moreover, could be strongly seen in the effects of the new pattern of production emerging in the rural economy as a result of the policies for the development of agriculture. It can also be observed in the increased dependence on wage employment, the decreased dependency on the traditional occupations and their related institutions, and the near total economic dependency on the state and its institutions for every aspect of rural life. Only the long term effects of these

developments and new patterns of productive activities are capable of rendering any vestige of the society's traditional organizations and the associated ideology as ineffective.

The above was indicated quite strongly in the studied cases in Sajir. Some fundamental changes in the household economy have had profound effects on most aspects of the bedouin farmers' lives, as well as on their perceptions, attitudes and aspirations. The changes occurring in the agricultural side of the household economy with its new relations of production (recruitment of wage labour, modern technology, reliance on cash crops, dependency on the state's incentives, higher incomes, and a close involvement with the market) have led to marked changes in the practice of the traditional occupation (animal husbandry and semi-nomadism). These changes range from decreased practice of pastoralism to engaging waged herders for the livestock capital. (This matter will be discussed fully at a later point of this section).

The point of the above argument is this: the detribalization process that is progressing at this time in Saudi society cannot be said to be a result of single political and economic policies of the state, nor is it closely associated with any clear policy for the sedentarization of nomads. It is in fact the combination of these policies and the natural processes of economic changes occurring in the Kingdom. If we have to single out a strong clear impetus for the detribalization process, then it is in the new sets of productive activities and patterns of production which are emerging in the country, which render the ideological components of the traditional society and economy if not ineffective, then only marginally influential.

On the Sedentarization Process

Chapter two criticised the conventional way of viewing the settlement of nomads in Saudi Arabia, which usually consists of the characterization of the Hujar settlement scheme, during the Ikhwan movement (1912 - 1930), as the early period of nomad settlement and any subsequent settlement period as recent. Another form of differentiation is between induced settlement (i.e. during the Ikhwan period) and spontaneous attempt (any internally motivated settlement). This study, however, favours a conceptualization of the sedentarization process not only from the point of view of landmarks in the history of the nomadic sector (i.e. the Ikhwan movement, the seven year droughts affecting pastoral resources, and the state agricultural settlement schemes), but also from the point of view of national economic developments, particularly those in the rural sector.

The other kind of distinction between induced and spontaneous settlement is useful to a limited degree, but it does not tell of the complexity of the set of circumstances surrounding the event of sedentarization. Furthermore, nor does it recognize that any process of development favouring the settlement of nomads, which is after all a major change to their socio-economic system, would have a measure of voluntary action which is induced by a set of circumstances which include factors beyond the control of the individual. For example, settlements due to droughts, an encapsulating state (by land reforms or settlement schemes), or the nomad's own perception that sedentary production is more favourable than the pastoral one all have elements of induced as well as voluntary action.

After looking closely at the agricultural sector and the Saudi rural

development, this study went on to outline three stages of nomad sedentarization in chapter five, which were later examined in the light of field work data. These outlined stages, furthermore, can only reflect the national developments and changes until recent times, but can not be seen as the final episode in nomads' sedentarization. These stages were conceptualized as follows:

1. The early stage of nomad settlement (1910 to the early 1930s). This stage was dominated by the Ikhwan movement, which indicated a hitherto unknown push for settlement among the Saudi nomadic tribes. The main characteristic of this stage is sedentarization through ideological intervention.
2. The intermediate stage of nomad settlement (1940 - 1960s). This stage was dominated by a process of sedentarization motivated by two elements: A) the productive instability of pastoral nomadism, felt keenly by the Saudi bedouins through both ecological circumstances (droughts and loss of grazing pastures), and juridical and policy inspired interventions into the dynamic of pastoral nomadism (land reforms, settlement schemes); and B) the opening up of other economic opportunities for wage employment, which were generated by the modern public sector (the military and the administrative organizations), and by the oil industry and revenues.
3. The most recent stage of nomad settlement (1970s up to the present) is characterised by a voluntary self - initiated push for a more settled state by large numbers of Saudi

nomads. This push was motivated by new economic developments occurring in the rural sector, which generated new forms of agricultural production, and new levels of agricultural incomes. The process has been accompanied by a heightened level of penetration of the modern sector institutions into the rural economy. These institutions include governmental services (i.e. educational institutions, agricultural extension offices and social services), and market facilities.

The difference between the above three stages of nomad sedentarization has been sketched briefly at some points above, but will be focussed upon here by describing the characteristics of each period:

1. The first period of nomad sedentarization was marked by a large scale, high profile settlement scheme which was motivated by the need to establish and spread the political authority of Ibn Saud over the independent nomadic tribes and coastal regions. The vehicle for this political goal was the Wahabi ideological movement, which was preached among the nomadic tribes to encourage them to settle, as well as to take the message to the far reaches of the Peninsula. The Ikhwan movement and army were therefore created, and nearly 200 Hujar were erected. The nomadic settlement of this period was marked by a general withdrawal from the nomadic economy, by abandoning migratory movement and exclusive dependence on animals. Substantial aspects of the tribal social structure were nonetheless retained and practiced (tribal settlements and effective tribal leadership), while there was a near total dependence on Ibn Saud's subsidies and provisions.

2. The second stage of nomad sedentarization had a more complex set of motivating factors and influences, which were detailed at length in chapter five. Settlement in this period, however, meant a respite from the economic difficulties of pastoralism, a greater opportunity to take advantage of health and education services, and a chance to enter into wage labour. This period, moreover, contains the seeds for the more marked developments occurring in the third period, as regards land distribution (1968), the establishment of Saudi Arabian Agricultural Bank (1969), as well as the increased incorporation of the nomads through settlements. All of these elements paved the way for the substantial changes arriving with the agricultural programme (mid 1970s), which followed the boom in national wealth due to the increase in oil prices.

Furthermore, the diversification of the economic structure of pastoralism and semi pastoralism, by adding cash incomes to subsistence pastoralism and/or subsistence cultivation among the bedouins, in this period had the basic characteristic of allowing the nomadic population to keep one foot firmly planted in their traditional occupation and to practise a multi-resource economy. It meant, however, that they remained basically subsistence oriented as regards the traditional rural occupations (pastoralism and cultivation), with a tendency to depend on cash remittances.

3. The third period of sedentarization was also commented on in

the detailed discussions above. Briefly, the dynamic of development in this period and the motivating influences for the bedouin population were within the rural sector. Furthermore it had the following characteristics:

- A) A higher level of disposition toward settlement among the nomads, because the rural standards of living had greatly improved with the initiatives and incomes generated by the agricultural policies.
- B) There were qualitative changes in the sedentarization process of this period, because the move for the bedouin is not from one subsistence economy to another, nor is it a diversification of the economic structure. It is rather a move to commercial farming and markedly different relations of production, by way of using modern agricultural methods and machinery, a growing ability to employ wage labour in the settled state, and a close association with market forces.
- C) The positive dynamic of change originating in the rural sector (due to changes in agriculture) has a great potential for distancing the bedouin from their traditional occupation (pastoralism), and a greater tendency for eliminating the integrative forces operative within the traditional social system and the traditional occupation (see the discussion above relating to the detribalization process). The new

patterns of production with their social characteristics (differentiations in landownership and cultivation, employment, education and wealth) are powerful forces capable of sweeping aside the traditional social characteristics and forces.

Upon examining the above stages of nomad settlement in the light of the process of sedentarization among the bedouin in Sajir, it was revealed that the outlined periods are largely significant in the case study. On the whole, the patterns of settlement in Sajir conformed to the expectation derived from the outlined periods. The settlement process among Al - Hanatish in Sajir, therefore, came in the following pattern:

1. The early settlers were motivated by the teaching of the Ikhwan movement. They settled for Jihad and were actively engaged in the Ikhwan battles. Settlement for this group of Al-Hanatish meant an addition of subsistence farming to subsistence pastoralism.
2. The intermediate settlers (1940 to 1970s) were largely motivated by the economic hardships of pastoralism, and their urgent need to enter the waged labour market (especially in the National Guard). The bedouin economy in this period experienced a marked diversification of its economic base, but pastoralists and farming activities remained largely subsistence based and traditional. The wage packets of the males in the household were used mostly to augment the traditional economy.

3. The latest stage of settlement in Sajir is characterized by a great influx of Al-Hanatish and other related lineages to Sajir to take advantage of the new forms of agricultural production, which promised better working conditions and a greater income. The settlers were not only pastoralists settling for the first time, but also semi-settled groups (closely related to Al-Hanatish), and men who were working in other regions of the kingdom. The overwhelming motivating factor for this group of settlers is the ownership of land, and the desire to engage in modern commercial agriculture.

Chapter five also revealed very marked differences between the settlers of the different periods, as regards education and modern sector experience. On the whole the early settlers were better able to enrol in schools and therefore engage in urban sector employment, and also better able to quickly assimilate into the expanding modern economy (commercial activities, civil service and military work). By contrast, the group who had remained pastoralist till the beginning of the 1970s were the least likely to have had received an education, or engaged in urban based employment (except the military).

Another very important development in the 1970s in Sajir was the evolution of pastoralist units that are very well integrated in the cash economy of the country. Despite the small insignificant numbers of these pastoralist units (at least in Sajir), they represent another alternative for the Saudi bedouin. This is because they tend to utilize the technology useful to them (water tanks, transportation trucks, electric generators, etc), as well as engage in income generating activities (employment for some of the males). They may

also share in the ownership of commercial firms in Sajir, and tend to employ salaried herders and own built up houses (in case of need). This form of short-distance pastoralism which revolves around a home base (Sajir in this case) is perceived by Sajirians as a short term measure, because the younger generation in those pastoral households desire permanent settlement.

On Rural Development and the Agricultural Policies

After looking closely at the Saudi agricultural sector, one of the main conclusions of chapter four had been to characterize the recent Saudi agricultural policies as over ambitious, albeit commendable, attempts to increase agricultural growth, production and contribution to the national economy, beyond the limited natural and skilled labour resources of the sector. The route which has been taken to achieve an apparent growth (i.e. increase in production, and rise in income) was mostly through fostering a dependency in the sector on state assistance, subsidies, and price support, and more importantly on foreign technology and labour resources.

The recent success story of the sector (in the 1980s), which is often pointed out in relation to wheat, poultry and dairy production, is largely explained by the involvement of large urban capital in agricultural production (see chapter four), and not by an evenly distributed productive growth among the original rural producers (i.e. traditional farmers and settled bedouins). These large companies and producers, moreover, are favoured with the best conditions for production, in terms of land distribution (through the PLDO or even

Iqta), grants and loans (through SAAB and MOAW), and the opportunity to obtain the skills needed for modern production (through recruiting skilled foreign labour).

In characterizing the Saudi rural development, this study concluded that there are three stages to this development.

1. The early land reforms (1925 to early 1960s). These were mainly designed to transform the structure of pastoral nomadism in the country by encouraging settlement, and changing land use among the nomadic population. These reforms underlined the Saudi commitment to private ownership of land.
2. Later land reforms (through the PLDO 1968) and the Iqta policy allowed three types of developments:
 - A) One continuous with the traditional form of land tenancy in the agricultural sector (through the PLDO), which encouraged small owner/occupier, labour intensive methods of production. These reforms were based on land distributions of 5-10 hectares of land to private individuals. The main beneficiaries of these reforms have been landless nomads and peasants.
 - B) Another policy of the PLDO is targeted to encourage big commercial enterprises by allocating large sized land to companies and corporations (400 hectares). The main beneficiaries of this policy are the existing large farmers and urban based commercial interests.

C) The Iqta, traditionally inspired system of land distribution (practised more frequently in the early stages of the rural history) has variable results in terms of landownership and type of cultivation, because it depends on the decision by the ruler, and the good will of the tribal leader administering the land distribution among his people. The Iqta system, however, tends to favour the tribal elites nationally and within the tribal unit. It also creates differentiated landholding based on nepotism and the relationship to the tribal (administrative) head.

3. Within the content of the above differential land distribution policies, the agricultural development policies have been implemented. The latter's main objectives were to increase production, transfer technology, and to expand the role of private enterprise in agriculture. This was done through huge credit facilities, subsidization and price support for wheat.

The outcome of the combination of the above policies was twofold. One was a total transformation of the production methods, especially for the huge landowners who are better placed to take advantage of the agricultural benefits and the wheat price support (by employing the high technology of wheat cultivation or the CPISs). The other was to improve production among the smaller landholdings through the application of better agricultural methods and technology.

Rural development in Saudi Arabia, therefore, is marked by a combination of the total transformation approach (in land reforms and agricultural production among the large landholdings), and the improvement approach (among the small landholdings). It is also marked by some tendencies toward the reformist and technocratic models of rural development, because there is an element of redistribution of wealth; especially when we consider the effects of the subsidization programme on the smaller farming enterprises.

In another vein, the Saudi rural development is marked by its tendency to forget the limited nature of the natural and labour resources of the agricultural sector, by promoting growth beyond the capacity of the water resources (on the long term), and by creating a gap between the skills available and those required by the transferal of technology.

It also has a tendency to concentrate on the production side of the agricultural operation, while not paying enough attention to developing the market and the distributive aspect of agricultural production. This lop-sidedness extends also to the type of agricultural production encouraged by the generous official subsidies and policies. So wheat cultivation, poultry and dairy farming have had the lion's share of subsidization and encouragement (at least until the present time) among the small as well as the large producers.

The outcome of the above tendencies was to create the following characteristics in the rural sector:

- A) A near total dependence on the state's (oil generated) wealth, its initiatives and subsidization programmes; in as

much as no areas of rural activity were sufficiently developed for productivity and profitability on a self-reliant basis.

- B) A dependency on recruited foreign labour, not only because of the skills required in production, but also because the high incomes generated by wheat cultivation create the ability to do so.
- C) A dependency on foreign technology, even among the small producers.
- D) A high degree of wastage of the country's valuable resources (capital, water and arable land) in the interest of rapid growth and a modernization programme, which only serves to redistribute the wealth in the short term, mainly to those who least need it (i.e. the large rural and urban based producers of agricultural goods).

The Saudi "rapid growth" rural development, therefore, may be criticised by the modernization school of thought because of its tendency to waste financial resources, its failure to meet the "free market" logic, and its tendency to promote a lop-sided programme of development (production versus distribution, wheat versus other crops, etc.) in the agricultural sector.

On the other hand, other schools of thoughts on development (particularly the dependency approach) may see it as creating a dependent economy, wasteful of the valuable natural resources and

leading to economic differentiation among the agricultural producers, in terms of land ownership and income. Another major criticism to the Saudi rural development programme is its lack of consideration for the Islamic laws of inheritance, which tend to fragment the land between the inheritors. This might render the presently used technological implements of cultivation (especially the central pivot irrigation systems, covering at least 25 hectares of land) unviable for the majority of modest individual producers. Large farming enterprises and companies may well solve the problem of land fragmentation by share holding and other devices, but the traditional owner/occupier farming establishments are unlikely to do so.

Chapter six, which examined the agricultural operation among the interviewed Sajirians in great details, saw the Iqta system of land distribution in motion (along with most of its implications). It also observed clearly most of the above shortcomings in the agricultural programme. This aspect of this study's observations will be discussed when the attempt is made below to visualize the Sajirian experience of sedentarization and development in an overall context.

On the Phenomenon of Bedouinism

Chapter two drew a clear distinction between tribalism and bedouinism. The latter is largely a social category (rather than a social system), which signifies current or past involvement in pastoral nomadism. The justification for using bedouinism as a social category actually springs from the strength of the tribal system in the Peninsula, and the generally stronger adherence of the bedouin (mostly nomadic) tribes to the principles of the tribal system. So the Saudi individuals who

originate from a known nomadic (ie bedouin) tribal unit do not of course lose their tribal (ie bedouin) identity upon settling, nor does their traditional heritage allow them an easy shedding of this identity.

We may, therefore, conceive of bedouinism as being nearer to the extreme end of the tribal continuum, by virtue of the pastoral nomadic heritage, which is the most dynamic manifestation of tribal life (in terms of the political and social structures). This is why the bedouins of Saudi Arabia are often perceived (nationally) as the embodiment of the tribal ethos and ideology, and of a respected traditional heritage (tribalism and al-badawah) which is shared minimally by the majority of the population and also by the ruling regime.

Conversely, the other side of the same image is to perceive them as embodying all the (alleged or real) negative, backward and destructive tendencies and ills of the previous tribal existence. These characteristics are said to include danger to the national political integration, a lack of participation in the modern economy (i.e. wasted human resources), and tendencies to aggression, individualism and opportunism.

The formulation of these images in the Saudi context has been examined in chapter eight, and their ambivalence discussed and demonstrated. They are mostly a result of four factors:

1. The perception that the present state-controlled conditions

have given the Saudi society peace and prosperity under the umbrella of an Islamic ideology. Moreover, they have overcome the previous conditions of tribal wars, strife and divisions.

2. Some of these images are a result of the relative isolation that some of the bedouin pastoralists have experienced until the present. This has not allowed them to benefit from the early educational and economic opportunities; which in turn, facilitated perceptions of the bedouins as ignorant and backward.
3. Most of these images (like violence, aggression and opportunism) are stereotypes that result from lack of understanding of the nature of the bedouins' real integration in the Saudi society, and/or misrepresentations of the conditions prevalent in the past. Other images, however, are a result of the changes affecting tribalism, which had allowed its co-operative aspect to disintegrate, and its individualistic tendencies to surface.
4. On the other hand, the bedouins enjoy a positive high status image in relation to their stronger adherence to the ideology of the tribal system, with its associated characteristics of bravery, loyalty to one's group and, above all, the alleged high level of purity in the blood line. This ideologically high status has frequently made women from noble bedouin tribes the favoured choice for marriage partners to senior Royal princes, who also seek to strength their tribal ties.

We may, therefore, conceive of the phenomenon of bedouinism as containing an ideological component as well as a practical one. The previous ideological high status gives the bedouins an added pride in their bedouin identity nationally, in addition to the strength of their identification with their tribal unit. The other images which are associated with the manifestation of bedouinism as an economic and social practice (ie. economic marginality, relative isolation, lack of education or modern sector skills, and low income) are elements that offset and negate the positive identity and push the bedouins toward settlement and sedentary production.

This ambivalence is compounded by the general tendency to continue with certain manifestations of the tribal structure, especially among the bedouins, which may initially strengthen the tribal identity and produce concrete positive outcomes. Such manifestations include tribally owned territories (Iqta and community right of access) in settlement, operative tribal leaderships, and the ideological legitimacy of the tribal way of existence.

Among those interviewed in Sajir, the ambivalence and strength of the two sides of the bedouin identity was clearly exhibited. Most of those interviewed, therefore, showed a marked need to call themselves bedouin, while simultaneously asserting themselves as part of the modern society. Hence they tended to a) add the term bedouin to any form of self - identification, and b) to choose terms of self-identification that show modernity. So mazaraa (agriculturist) was preferred to falah (connoting peasant farming), and business man to merchant. This was not the case among the sedentary farmers interviewed in the nearby village, who saw no need to shun the word falah (see chapter eight).

Another aspect of bedouinism in the studied community (especially among the less sedentarized and successful bedouins) is manifested in the practice of pastoralism - or, more appropriately at present, of animal husbandry - in the settled state. This tendency (ie. the ownership of large herds of sheep and camel) signified to this researcher the pull of the tension between the traditional occupation (as both ideology and practice), and the new, more profitable, modern occupations. This tension showed itself in two ways:

- A) The perception that the ownership of livestock in the settled state represents a familiar and reliable open option in the lives of the newly sedentarized. Even when the settled bedouins have no animal herds at present, animal husbandry represent to them a safe future prospect in case of failure in farming.

- B) Livestock rearing (i.e. the ownership of animal herds) can act as a form of asserting the ideology of bedouinism. Hence the bedouin farmers (whenever they can) keep large herds of camel and sheep, which act as a reminder and assertion of their distinct identity and ideology.

The first manifestation of bedouinism as a practice (open option) was more operative among the more recently sedentarized, and those with reduced expectations of their futures as farmers (see chapter eight). The second manifestation (asserted ideology) was more operative among the rich and capable farmers, who can afford to keep large herds of animals, without realising their full commercial value. Overall,

however, the animal holdings in Sajir did not conform to either of the two logics associated with i) the traditional occupation of pastoralism and ii) the commercial organization of animal farming (see chapter seven). The main reason for this, in the opinion of this researcher, is contained in the nature of the economy practised by the Sajirians (along with other similar communities), which allow them to have a very favourable multi-resource household economy. Thus the household economy in Sajir has the following characteristics: a) an artificially supported profitability of wheat cultivation, b) the ability to employ farm labour in cultivation and herding and c) a tendency to receive several other incomes from wage employment. This point will be returned to in the final section.

The Case Study in an Overall Context

Al-Hanatish in Sajir represents a favourably placed, well integrated bedouin community, whose history of sedentarization closely matches and follows the historical events of the area, as well as developments in rural policy at national level. Their privileged position comes from: A) their tribal status as Utaibis, and their integration in the political system through their present leadership (which played a supportive role to the state during the Ikhwan battles); and B) their central geographical position in a region favourable for both agriculture and pastoralism.

The first element allowed them access to a large territory surrounding their Ikhwan settlement, through the Iqta that was given to their first Amir. This territory proved subsequently to be highly favourable in terms of the available arable land and its underground water resources.

Al-Hanatish's sedentarization pattern, furthermore, followed closely the periodization set out by this study, which in turn derives mainly from the history of bedouins in Saudi Arabia, as well as the important events in rural development. Hence the Hanatish sedentarized bedouins can be divided into three groups: those who had settled early for Jihad; those who came to settlement because of the adverse conditions facing pastoralism during the 1950s; and finally, those abandoning pastoralism in favour of agriculture and the new productive methods in the 1970s and 1980s.

The differences between the three groups, moreover, are partly due to the difference in the time of their entry into more sedentary conditions. This allowed them to gain a level of economic and educational status, which in turn determined their success rate in the recent modern developments in the rural context as well as in Sajir. Chapter Five showed clear differences in the skills, educational levels and modern sector experience between the settlers in the three different groups, particularly between the early settlers and the most recent ones. The latter group had a marked lack of education, skill and experience of farming.

The date of settlement and its associated effects, however, are not the only important elements determining the status of the individual in Sajir. As mentioned before, Sajir's case demonstrated the Iqta system in motion within agricultural setting. Along these lines, Chapter Six showed the following:

1. There is a tendency for the system of Iqta to favour the elites of the community, who claim leadership status among

their units (small or large). Thus we saw hamlets of Sajir (of small sub-lineages) claiming land donations from the Amir of Sajir, through their sub-Amir; and dividing these among themselves in a manner which grossly favours the hamlet's leader (the administrator of the hamlet's Iqta and land distribution). This was also demonstrated in a general way in the vast areas of hectares donated to certain individuals through the Amir, even when they did not belong to local tribal units.

2. In addition to the marked differentiation in land ownership, the Iqta system in Sajir resulted in a general tendency for large holdings, which is clearly different from the national 5-10 hectares of land donations specified by the PLDO. This, in effect, allowed the development of large farming enterprises in Sajir, and favoured the use of the modern technology of wheat cultivation - (i.e. CPISSs covering 25 hectares of land). The practice of Iqta in Sajir, moreover, was described as generous (despite its uneven nature) by the people of the region, because of the relatively open disposition of the administrators.

The people of Sajir have always had a multi-resource household economy. The settlement initially (i.e. during the Ikhwan times) was predominantly engaged in military battles, but was receiving subsidies and provisions from Ibn-Saud in Riyadh. Ever since the defeat of the Ikhwan the settlers in Sajir have combined subsistence primitive cultivation (baal) with subsistence pastoralism and wage employment (particularly in the military). The opening up of other economic

opportunities in the 1950s and 1960s outside the rural sector have also disposed many of Sajir's men to leave the settlement and take up work elsewhere.

The turning point for development and increased settlement in Sajir came with the growth in the agricultural sector. It began in the late 1960s (with the introduction of modern water systems and deep wells), accelerated in the mid 1970s with the beginning of subsidisation and loans programmes (through SAAB), and reached fever pitch in the late 1970s and the 1980s with the wheat price support policy. Nonetheless Sajirians, despite their great enthusiasm for agriculture, remain multi-resource people with wage employment constituting an important part of their household economy.

Agriculture in Sajir, moreover, suffers from all the classic features of agriculture in an arid zone. These include increasing water shortages, a high level of crop disease, soil deficiencies, and low productivity. We may add to this list all the problems already described in our characterisation of the Saudi rural economy (an incoherent development programme, lack of control over the water resources, unchecked expansion, and a lack of development of the market for all agricultural goods), as well as the lack of skill and experience among the majority of the farmers in Sajir. The resulting picture is not an encouraging one, nor does it show much promise of improvement in the future.

The agricultural scene in fact was characterised by a significant lack of the much needed element of diversification of cropping. That is because the farmers only experience profit in the wheat cultivation

operation. It was also marked by a dependency on foreign workers, which in turn leads to the underemployment of the nationals on their farms. Low productivity, furthermore, was a major feature of the farming picture (see Chapter Six).

The incomes from agriculture, moreover, were highest among the largest producers and cultivators, and those who appeared to have longer experience of farming or a greater level of concentration on the farming operation. These latter farmers also seem to be the ones capable of bridging the gap between the available water resources and the continued existence of agriculture (in the long run), by employing the even more sophisticated technology of greenhouse cultivation of fruits and vegetables, thereby reducing the need for water and diversifying cropping. This was reflected in the bedouin farmers' varying statements of their commitment to farming in case of reduced income (i.e. from wheat cultivation). More of the large landowners expressed a firm commitment to farming, while the smaller landowners were more likely to abandon cultivation altogether (see Chapter Eight).

The small operators in Sajir (below 100 ha) were in the worst possible condition as regards the ability to profit, reinvest in the farm, or manage through the usual difficulties (i.e. water shortages or crop diseases). This group of farmers will be the first casualty in any future development, whether ecological or in the area of policy changes. In fact, since the end of the fieldwork period news from the studied region has indicated that many of the small farmers (at least in Al-Burud) have either sold their farms or put them up for sale. This tendency will increase once the wheat price support has ended.

In another vein, the remarkable adaptability that the Sajirians displayed in quickly accepting and adjusting to the new agricultural methods, as well as the level of rationality associated with the choices made in the household economy, also lead to the conclusion that there is no problematical cultural change involved in the sedentarization process, or in the change to agricultural production. Infact, the Sajirians were ready to take up any suitable, profitable and advantageous economic activity as soon as it became available. This is, of course, contrary to the generally held opinion in Saudi Arabia that bedouins have a cultural bias against agriculture, which was discussed in chapter eight.

The general impression of the bedouins in Sajir as open and adaptable was also confirmed by the remarkable similarity between their attitudes and perceptions, and those expressed by the twenty five sedentary farmers (see chapter eight). This confirmed to this researcher that the ideology associated with pastoral nomadism or bedouinism does not have any determining effect on the agricultural operation as it is practised in Sajir, i.e. as a dominant sub - system of the household economy.

The perceptions and attitudes of the farmers generally (sedentary and bedouin) were rather influenced by the internal characteristics of the farming enterprise, and the nature of choices within the agricultural sector. The similarity of the attitudes between the two groups of farmers was manifested in terms of seeing themselves as predominantly dependent on the state's help and incentives; perceiving "others" as responsible for improving any unsatisfactory element in agriculture, and even showing the same level of commitment to farming. In both

cases, however, this commitment is only in relation to themselves and their already invested capital in the farm, but not as a future occupation for their children.

The prevailing influence of the farming operation was not only seen in the existing relations of production, and the opinions and attitudes expressed. It was also clearly visible in the sphere of animal holdings among those interviewed. The importance of livestock, in terms of ownership and size, can be reasonably assumed to be a legacy of the bedouin pastoral heritage. That legacy, however, did not have a determining influence on how the farmers conducted the livestock breeding operation. Infact in the majority of cases, the persons interviewed behaved like sedentary farmers regarding their livestock holdings, but felt like pastoralists to themselves.

The absorption of the bedouin interviewed into the market economy of sedentary agriculture production was clearly exhibited. Hence they relied more on other economic resources (ie. agricultural, employment) than they did on pastoralism. They were also seen to have abandoned most of the traditional elements of the pastoral existence, even if they had only recently settled. Furthermore, family labour was usually withdrawn from the livestock breeding operation; while the various forms of domestic uses for animals and their by-products were being largely neglected. These developments, however, do not define the type of animal husbandry practised in Sajir as modern, because full commercialization and modern farming methods have not yet been adopted.

Nonetheless, the above does not negate the continued importance of bedouinism and its associated ideology. The strength of this ideology was clearly seen in the following areas:

1. The tendency to keep large herds of animals in the settled state (particularly camel herds), and as fixed assets (see chapter seven).
2. In the perception that the ownership of livestock on the one hand represents a familiar and reliable open option for the future (especially for less successful cultivators), and on the other hand acts as an assertion of bedouin identity and ideology (especially for rich farmers).
3. In the organization of many of the different sub-lineages in Sajir in separate hamlets, with different sub-Amirs and different facilities where possible (i.e. the tribal individualistic aspect of bedouinism).
4. In the status of women in Sajir society. Here again, the tribal aspect of the bedouin ideology was seen to be strongly operative for women in its most restrictive form. This is because women have become extremely marginal in the forms of production presently practised. This in turn allows the society at large to activate the most narrow forms of the prevailing ideologies in their case. In Sajir, this was seen in a combination of restrictive bedouin practices and Islamic ones - as regards education, marriage, social isolation, and the traditional role of bedouin women in pastoral society (see chapter eight).

Bedouinism may prove to be even more important to the Sajirians, if and when the subsidized agricultural operation (i.e. wheat cultivation) has

subsided into more realistic levels of attractiveness. This is especially so for the farmers of modest status, who may not be able to go into technologically advanced and therefore more expensive forms of cultivation, or into the modern private sector.

Final Comments

A dominant impression of the agricultural region of Sajir has been the new nature of the set of economic activities practised at present, especially in farming. This impression was supported by the high levels of dependency on foreign technology, skill, and labour, as well as on government incentives. The other side of the impression is an abrupt, and even sad, economic and cultural discontinuity of an important and previously dominant sector of the economy, i.e. pastoral nomadism.

The irony of the bedouins abandoning an economic system practised for thousands of years in extreme harmony with the ecology and the natural resources of the region, and going into a productive system that has yet to prove itself as capable of providing for and supporting large populations in the long run, is too obvious to be missed by anyone. One of the many reasons for this development has been in the lack of any strong and concentrated effort to modernize the pastoral sector, such as could bring to the (pastoral) bedouins all of the services appropriate for the conducting of modern societies. These would include: education of children in mobile units, mobile health services, and promoting the economic integration of pastoralism itself.

To be sure, the agricultural sector has been deserving of high levels of both public and private investment, after the many years of isolation and neglect. These investments, however, have proved to be mainly geared for pure growth and high profit. Too little attention has been given to balanced integrated development (for all agricultural goods), the natural resources (especially water), or the long term gradual transformation of the sector (as regards indigeneous labour and skill resources).

Furthermore, many of the large producers of agricultural goods are at risk in the sector today, because of the high levels of competition for the market (by foreign and Saudi goods) in the most supported and subsidized areas of production like dairy, poultry, and even vegetables and fruit production. These large producers, however, are best placed to salvage something from their capital investments and experiences of agricultural production.

By contrast, the small, previously bedouin or traditional producers are the ones most at risk in today's agricultural enterprise. They risk being left largely without resources in the face of changes in national policies, or against their (comparatively speaking) high levels of farm investments and agricultural credit. Their only alternative, in case of adversity, is to leave the sector (if not themselves personally, then their children), and join the already saturated low skill market, or the civil service urban sector.

The first national priority is, therefore, toward these small and family farming units, seen in Sajir in extended bedouin family structures (sometimes recently settled); and whose commitment to farming is largely a commitment to a lifestyle, rather than to capital

investment and profit. Other areas of the Kingdom, furthermore, will undoubtedly have more of these family farming households, who are even more dependent on cultivation and not pastorally minded.

The type of action that should be taken on their behalf is, in fact, part and parcel of any plan to improve the agricultural policies, and create a well balanced, integrated, and gradual transformation and development of agricultural production. Such a plan might include the following:

1. A closer scrutiny of the underground water resources, and greater measures of control over them. This should apply particularly to the larger producers, who have greater ability to abuse and overuse the water for irrigation and for any other agricultural enterprises.

2. Greater attention to the land resources among the traditional, extended family, farming units; in order to increase their share of cultivated land and allow them to enter into modern methods of production.

3. A widening of the incentive structure in agricultural production , with reasonable levels of support (i.e. not excessively attractive), and also for a greater range of agricultural products. These policies of support, moreover, should be updated frequently and with the utmost attention to not creating a lop-sided agricultural growth.

4. Greater attention to the marketing of agricultural produce, and the structures of distribution within the Kingdom. Such a policy will include:

- A. Import restrictions on foreign goods also produced at home, or which are potentially produceable at home.
 - B. A modernization of the distributive methods, which will ensure a just share for all operators.
 - C. Creating a national network for marketing and distribution.
5. A greater attention to developing agricultural labour and skill resources within the Kingdom. This could be done by short paid courses of training and education for the farmers of today, as well as the farmers of the future (i.e. the children of the present ones). Another important measure for this aspect of development is greater restrictions on the recruiting of foreign labour, except in essential cases. This would reduce the tendency to engage in cultivation on an absent, casual or "underemployed" basis. It would also increase the commitment to, and knowledge of, farming.

The above measures seen by this researcher as most important, if we are to improve the future prospects of farming, thereby reducing high profiteering from agriculture among the rich and increasing optimism among the traditional majority of the rural population. Optimism and a reasonably high level of expectations are the only means through which commitment and continuity can be maintained and increased in the agricultural sector of today and tomorrow. It will also ensure that the already sedentarized bedouins of Sajir, and any like them, remain agriculturally inclined.

Appendix IThe Personal Interview(A) Background Personal Information

- | | | | |
|-----|------------------------|-------|-------------------|
| 1. | Farm's Name: | 2. | Type of Dwelling: |
| 3. | Farmer's Name: | | |
| 4. | Age: | 5. | Place of Birth: |
| 6. | Marital Status: | | |
| 7. | No. of Children: | Male: | Female: |
| 8. | No. of Siblings: | Male: | Female: |
| 9. | Lineage: | 10. | Tribe: |
| 11. | Previous Occupation: | | |
| | Current Occupation(s): | | |
| 12. | Educational Level: | | |
| 13. | Sources of Income: | | |

(B) Family Background

1. Relatives living with you, other than immediate family (wives and children)
2. Do they also share in the farming activities?
Yes: No:
3. Who ultimately makes the final decisions when it comes to farming activities?
4. Do you also practise animal husbandry?
Yes: No:
If yes, for what purpose?

Family History

5. Have you ever participated in a nomadic life style?
Yes: No:
If yes, (6) If no, (11)

12. What form of nomadism did they practice (if known):

1. Camel grazing
2. Sheep and camel grazing
3. Sheep grazing
4. Lived only nomadic life
5. Practised some form of agriculture
6. Nomadic activities were limited to certain times of the year
7. Lived mostly in a mud house
8. Lived mostly in a tent
9. Were also involved in military activities
10. Other

13. Have they settled now?

Yes:

No:

If yes: Go to (14) If no: Go to (15)

14. What were the incentives for their settlement; and when and where did they settle ?

Incentives:

When :

Where :

If no:

15. Have there been any changes to their nomadic lifestyle?

Yes:

No:

What (?)

16. What were the reasons for the choice of Sajir as the place for settlement for you and your family?

Work Experience

17. If previously experienced in farming, what form of farming?

1. Traditional summer camp.
2. As sharecropper.
3. Leasing of farmland.
4. As farm labour.
5. Others.

18. How long did that particular activity last?

19. What crops were you cultivating?

29. What is the size of your land (cultivated and uncultivated)?

Total Area	Cultivated	Uncultivated	Percentage Cultivated
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30. Did you have any choice in the selection of your land?

Holding	Yes	No
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Why?

31. Is your land(s) part of the tribe's dirah/hemma (traditional grazing land), or does it have special status for your family or lineage?

Yes: No: Some only:

Special status if present:

32. Do you own this land individually?

Yes: No:

If not sole owner:

61. Other crops that were significant in terms of size and commercial value in the last three seasons:

No.	Season	Weight	Marketing Procedure	Problems
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62. Where do you obtain your

Seeds:

Fertilizers:

63. What would you say are the problems that farmers generally face in this area? (refer to table for classification).
64. What do you think about each of the following elements as potential problems in this areas?

Code	Elements as problems	Farmer's Comments On Each	Rate of Emphasis
1	Weather		
2	Water shortage		
3	Marketing & distribution		
4	Crop diseases		
5	Lack of own skill		
6	Low quality of farming advisory services		
7	Non-co operation of governmental agencies		
8	The incomplete nature of social services		
9	Labour shortages		
10	Competition of foreign products in market place		
11	Lack of control on agricultural growth		
12	Low skill of foreign labour		
13	Other		

65. Would you say the majority of farming problems are:

1. Beyond farmer's control
2. Well within farmer's control
3. Not exclusively (1) or (2), but a combination of both.

66. Expand and state the reason for your choice.

67. What can be done to avoid or lessen problems either by farmers or others?

No.	To be done by farmer	To be done by others
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68. How would you define yourself and why?

Reason

- 1 Bedouin
 - 2 Agriculturist (mozaraa)
 - 3 Farmer (falah)
 - 4 Businessman
 - 5 Merchant
 - 6 A settled bedouin
 - 7 Other
-

69. How do you personally think about the future of farming in this area, and why?

Code

Reason

- 1 Optimistic
 - 2 Pessimistic
 - 3 Mostly optimistic
 - 4 Mostly pessimistic
-

70. If as some people think, income from farming declines in the future, would you personally:
1. Continue farming
 2. Leave farming altogether
 3. Go on farming but augment your income from other activities
71. Why?
72. What other choices do you have for livelihood?
73. What would you do, if you were an official charged with improving the state of the agricultural area?
74. What would you demand, if you were representing the farmers in your region.
75. Would you like your children to follow in your footsteps and be farmers? Why?

Yes:

No:

76. To what level do you hope to educate your children?

Sons

Daughters

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