Macro Implications of Micro-Participation

Participatory Management of Electricity Distribution in Eastern India

Ashwini Kumar Swain

PhD

University of York
Department of Politics
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Abstract

Electrification has become a pivotal development issue in the developing countries, as it provides a huge range of social and developmental advantages. At the same time it has been realised that delivering electricity in the rural areas, particularly to poor, is a hard task and requires establishment of effective institutions and delivery mechanisms. If not properly planned, highly subsidised rural electrification programmes may end up in drain of resources and damaging impacts on the utilities. These challenges are probably better illustrated in the Indian case, where half of the population still living in dark.

In recent years, centralised planning and resource allocation, which used to be the governing principle for development, has been blamed for the failure. As a response to the perceived failure of top-down centralised planning and implementation, bottom-up decentralised participatory models have been proposed by international development organisations. The bottom-up model proposed for electric service delivery seek to involve the users in the delivery process through building micro-institutions and empowering them to plan, manage, monitor, and own the local service delivery mechanism. The proposed model marks the beginning of a new paradigm for electricity service delivery that relies on the users and their democratic capabilities.

In this context, this study, drawing on experiences in two cases in Eastern India, analyses the potentials of decentralised participatory model of electricity delivery. It provides an empirical analysis of how and to what extent decentralisation and users' participation in electricity delivery contributes to efficiency and effectiveness gain in electricity supply system. Moreover, building on participatory democracy, the study analyses the empowering effects of participation in electricity users associations. It concludes that decentralisation and users' participation has significant contributions to electricity service improvement. Yet, it identifies scope for improvement in the model and suggests some methods and approaches by which the model could be made more efficient and effective, and can produce real gains for the poor.

List of Contents

List of Tables and Figures

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Author's Declaration

I hereby declare that, unless stated, all the material contained in this thesis is based on my own idea and research.

Chapter 1

Alternating Current

Introduction to the Study of Decentralisation and user's Participation in Electricity Supply

1.1 Introduction

After more than six decades of public electrification, the state of electricity supply in India is really appalling. Those who have access to electricity service have to bear with poor quality of supply in form of frequent load-shedding and low voltage, while more than one-third of Indians are yet to get access to the service. Moreover, there is a rural- urban gap in electricity supply; the rural population has to bear with worst quality of supply and low access. It shows that the country is faced with a severe electricity crisis, where the demand for electricity is much higher than available electricity. Even though the current crisis had surfaced and was identified during early 1980s, India is yet to find an effective solution or strategy to address it. Structural reforms during 1990s, based on neoliberal economic principles, have hardly helped to improve the situation. However, India ambitiously aims to provide universal access to electricity by 2015.

In this context, the big questions are how to provide universal access to electricity and improve quality of electricity supply? The conventional wisdom, based on technocratic knowledge, would suggest increasing electricity generation capacity. In recent years, there is a growing consensus that the technocratic solution is limited for various reasons. First, the source of the current electricity crisis in India is rooted in the delivery end; increasing generation only would not address the crisis. Second, it is a difficult task to increase generation in tune with growing demand in rapidly industrialising and populous country like India. Third, rapid increase in generation capacity, with

the current energy mix[1], would expose the country to severe energy security threats. Finally, in a climate constrained world, where there is global consensus on reducing fossil fuel consumption to protect the environment, India have to rely heavily on renewable energy development to increase its electricity generation capacity. It must be noted that renewable energy development has high economic cost for the state and the electricity users, which is beyond their affordability.

Though, there would be a need for increasing electricity generation to meet the growing demand, it could not address India's electricity crisis adequately and effectively. There is a need to improve electricity supply systems, particularly when the concern is improving access and quality of supply. However, past experiences suggest that state and market agencies have failed to improve the electricity supply system and to bring in efficiency and effectiveness in electricity delivery. In response, decentralised participatory governance of electricity supply has been proposed to bring in efficiency and effectiveness in electricity delivery.

The current research is an attempt to identify and analyse the potentials of decentralisation and users' participation in electricity supply. Can decentralisation and users' participation lead to an efficient and effective electricity supply system? Can decentralisation and users' participation achieve what the state and market agencies failed to achieve? Based on study of two empirical cases in eastern India, the study aims to identify opportunities and challenges in decentralised participatory governance of electricity supply.

1.2 Research Context

Electrification is a pivotal development issue in the developing world as it

[1] The current energy mix in India is dominated by non-renewable fossil fuel based electricity, for which India is already importing input energy (e.g. coal). Further expansion of fossil fuel-based electricity generation would require higher energy import exposing India to energy security threats.

provides a huge range of social and developmental advantages. The provision of electricity has become synonymous with economic development and social progress today. It is a prerequisite for ameliorating the lifestyle of the poor and an indispensable input for productive and economic activities. By making home life more convenient and household work easier, even in minimal quantities[2], electricity brings in profound lifestyle changes for the poor. Poor households highly value and benefit from electrification through improved public services[3] and economic development, although it requires many complementary inputs, including end-use technologies to convert electricity into useful outputs (Cecelski, 2002). Barnes (2007: 3) points out that there is a positive relationship between electricity consumption and gross domestic product – a greater degree of electrification is not only correlated with but also contributes to a lower poverty level. Access to electricity service facilitates economic development through promotion of micro-enterprises, livelihood activities beyond daylights hours, local entrepreneurship and thus employment. The World Bank (2004: 7) rightly claims that access to electricity service could be a key driver for economic growth, development and poverty reduction. Although electricity provision is not stated in the United Nation's Millennium Development Goals, it provides foundations for most of these goals – from halving the number of people living on less than US$ 1 per day to better education and improved health facilities (EDF, 2002; Modi et al., 2006). More recently, the Secretary-General of the United Nations claimed that "the decision we take today on how we produce, consume and distribute energy will profoundly influence our ability to eradicate poverty" (AGECC, 2010: Foreword).

[2] EDF (2002) points out that the positive contribution of electricity to the Human Development Index is strongest for the first kilowatt/hour.

[3] From the Census of India (2001) data on household amenities, it is evident that basic public services are bundled together. For example, 70 per cent of the rural households that have tap water have access to electricity, while only 32 per cent of the households getting water from hand pump are electrified (EPW, 2006).

The increasing significance of electricity services is reflected in the broadening of the definition of 'sustainable energy' from its primary economic development focus in the 1970s, through the inclusion of concerns with environmental sustainability in the 1980s and financial sustainability in the 1990s, to social sustainability, equity and poverty in recent years (Cecelski, 2002). Despite sustained efforts, an estimated population of 1.64 billion worldwide lack access to the service, 99 per cent live in developing countries, 80 per cent in rural areas and 35 per cent in India. If the current policies for electrification are followed, 1.4 billion will still lack electricity in 2030 (IEA, 2002).

However, electrification is often easier said than done. It can face major obstacles at every level and thus requires establishment of effective institutions, delivery mechanisms, coherent policy choices and effective implementation. If not properly planned, highly subsidised rural electrification programmes may end up as a drain on public resources and have damaging impacts on utilities. These challenges are probably better illustrated in the Indian case. After 60 years of independence and state- led development, India has not achieved universal electrification. Despite repeated efforts, out of approximately 192 million households, around 85 million do not have access to electricity, 78 million of which are in rural India, and the remaining 7 million are urban households. In per centage terms, 56.6 per cent of rural households and 12 per cent of urban households do not have access to electricity (Bhattacharyya, 2006). The current rate of electrification has failed to keep pace with population growth, making the problem worse. India houses the highest number of people for any one nation without electricity. They are mostly poor, located in rural areas and deprived of other related services and socio-economic benefits. On the other hand, those who have access to the service are highly dissatisfied with the poor quality and limited hours of supply. While aggregate

technical and commercial (AT & C)[4] loss is around 35 per cent and the gap between demand and supply hovers around 10 per cent, the utilities are reluctant to take up new loads.

In recent years, centralised planning and resource allocation, which used to be the governing principle for public service delivery, has been blamed for the failure. State provision of electricity in India has proved to be inefficient and has failed to deliver to the poor. It is argued that centralised service delivery results in non-uniform and inefficient delivery patterns (Bardhan and Mookherjee, 2006), undermining its objective for uniform provision, and a weak relationship between users and the provider (Barnes, 2007). As a response to the perceived failure of top-down planning and implementation, decentralised participatory models have been proposed by international development organisations. They claim that while inflexible top-down planning favours the elites and the status quo, bottom-up participatory planning increases the choices for the poor (DFID, 2002). The decentralised participatory model proposed for electricity service delivery seeks to involve the users in a decentralised delivery process through building micro-institutions (users' associations or cooperatives). In the model, the users are empowered to plan, manage, monitor, and own the local service delivery mechanism.

While there is a consensus that "too often, services fail poor people – in access, in quantity, in quality", there is a claim made that the situation could be altered "by putting poor people at the centre of service provision: by enabling them to monitor and discipline service providers, by amplifying their voice in policymaking, and by strengthening the incentives for providers to serve the poor" (World Bank, 2003: 1). International development organisations, through their lending policies, have been pushing for decentralisation and users' participation in basic service delivery. Can decentralised participatory model

[4] AT & C losses include technical losses at transformer and feeder level and non-technical and commercial losses due to faulty meters, theft and non-payment. A major portion of the loss is due to unaccounted theft.

address the inefficiencies in basic service delivery? Can making the service users partners of service provider work for better quality of service and access?

The claims on effectiveness of the decentralised participatory approach in public service delivery lack enough empirical validity. It has been criticised as an effect of the 'hollow state' and as a strategy to transfer the responsibilities from the state to the people.[5] More empirical research is required to examine the effects of decentralisation and users' participation in service delivery in different contexts. Douglas Barnes, based on an analysis of ten cases of successful national electrification programmes, finds decentralisation and users' participation as two of the key factors for effective electricity supply. He claims that rural electrification programmes can benefit greatly from the involvement of local people or can suffer in its absence (Barnes, 2007). However, he does not explain whether and how different levels of decentralisation and participation result in varying degrees of service delivery and how it is affected by other contextual factors.

In past two decades, there has been a push for decentralisation and users' participation in electricity supply, reflected in India's current electricity policy. It raises the question of whether the success of the decentralised participatory electricity supply model in other parts of the world could be replicated in India. If so, this raises a further question of how to fit the model into Indian context. These questions are relevant because the proposed approach for decentralised electrification requires grassroots participation, which is notably low in India despite the fact that the institutional structures of local government (i.e. Panchayat Raj Institutions) are available for it (Dreze and Sen, 2002). Moreover, in practice, transfer of power and resources to decentralised units from centralised agencies has been an issue of contention.

[5] Even though private agencies have a presence in public service delivery, it has been the responsibility of the state to deliver to the financially less attractive rural population.

It is accepted that state provision of basic services in India has been plagued with many systemic problems and weak accountability mechanisms (Chand, 2006, World Bank, 2006). While the physical extension of these services has improved greatly over time, the state, with virtual monopoly over their production and delivery, has been doing far less well in terms of ensuring their quality, reliability and effectiveness. Can decentralisation and users' participation address all these problems in Indian electricity? Can a decentralised participatory model of electricity delivery increase efficiency and effectiveness in electricity supply?

1.3 Purpose of the Study

The perceived failure of centralised electricity delivery and market-focused approach has resulted in increasing emphasis on decentralised and participatory approaches to electricity delivery in rural India. The new paradigm of rural electrification draws on international experience and global debate on participatory development promoted by international development organisations. Once again, the institutional reform in electricity service delivery has ignored the significance and uniqueness of the Indian experience and context. It has simply been accepted that international experience in electricity delivery could be replicated in India by engaging users' in the delivery process. The current research, based on empirical study of two cases of decentralised participatory electricity delivery in Eastern India, seeks to fill the gap and contribute to the policy process.

The purpose of this study is to identify and analyse the potential effects of decentralisation and users' participation in electricity delivery in Indian context. The key question is whether decentralisation and users' participation can address the problems existing in the conventional model of electricity delivery and improve efficiency and effectiveness of electricity supply system. My ambition in this thesis is not to do a scientific assessment of the decentralised participatory model of electricity delivery. Instead, my goal is more modest, and my prime concern is to point out potential contributions of

the model to the efficiency and effectiveness of electricity supply system in India.

Drawing on the normative claims around decentralisation and participation, the study aims to find answers for a range of questions. The main objectives of decentralised participatory approaches have been efficiency and effectiveness enhancement in service delivery. Does decentralisation and greater participation in electricity delivery contribute to efficiency in electricity supply system? Is a decentralised participatory electricity delivery system more effective than the conventional centralised supply system? While contributing to the primary objectives, participation in users' associations is expected to produce some democratic outcomes, viz. political efficacy and civic values. Does users' participation in electricity users' association enhance their political efficacy and civic values?

Theoretically, the study builds on different set of literatures on decentralisation, participatory democracy and participatory development. It aims to complement existing literature by drawing on the Indian experience. However, the study does not aim to test the validity of the existing theories. Rather, based on case studies and by analysing existing theories, it aims to explain any variations and contradictions found and thus contribute to the theory. In addition to contributing to the literature, the study aims to raise further research questions relevant to decentralisation, public participation and electricity supply.

1.4 Organisation of the Thesis

The next chapter, analysing the literature on decentralisation and participation, sets out the normative responses to the problems in public service delivery (which are identified in Chapter 3, in case of electricity service delivery in India). The chapter analyses the emergence of decentralisation and users' participation in debates about development policy, and expected shifts in the governance of public service delivery. In the literature on public service delivery, decentralisation is often associated with participation resulting in the literature

on ‘democratic decentralisation’ or ‘democratic local governance’. However, the alleged association is problematic; decentralisation does not necessarily imply democracy- and vice-versa. The chapter considers decentralisation and participation as two different approaches for public service improvement; analyse their origin, transformation and convergence in development context; and interrogates the various forms and degrees they can take, their underlying rationale, and expected outcomes.

Chapter 3 provides a background to the state of electricity service delivery by critically examining the institution building and policy process in the Indian electricity sector. The objective is to analyse institutional and policy shifts leading to decentralisation and users’ engagement in electricity delivery, their underlying rationales, and their outcomes. It argues that the policy shifts in the Indian electricity sector over the past six decades are reflections of developments in India’s political economy, dominant interests and prevailing development ideologies. During each phase of policy shifts, a set of new institutions were created to implement these new policies, which has resulted in institutional layering and pluralism in the sector. Though there have been several efforts to electrify the whole country, due to complex and inefficient institutional structure and gaps in design and implementation of policies, these efforts have only delivered limited results. Moreover, the sector has developed several chronic inefficiencies affecting electricity delivery in India as a result of these policy shifts.

Chapter 4 outlines and justifies the research methodology and case studies of the research project. The chapter explains the research questions and hypotheses addressed in the study, why they are relevant and expected answers to these questions. It identifies and explains various indicators to find out improvement in electricity supply as a result of decentralisation and users’ participation. It also elaborates on specific cases studied in the research, outlines various research methods used for data collection, analysis and interpretation and limitations of the study. Following three chapters, discuss the

empirical findings of the study. Chapter 5 analyses the contributions of decentralisation and users' participation to the improvement of efficiency in electricity delivery. Chapter 6 discusses the improvements in the effectiveness of service delivery systems in the presence of decentralised service providers and users' participation. Both chapters conclude that decentralisation and users participation make a positive contribution to the efficiency and effectiveness of the electricity supply system and identify gaps and scopes for improvement. Chapter 7 examines empirical validity of the claims for participation as an end-in-itself, drawing on users' participation in electricity supply. It identifies the spillover effects of users' participation and analyses their contribution to the civic values of the users and their implications for democratic practice at the grassroots level. The concluding chapter summarises the key findings of the study and points out the limitations. It makes a case for an integrated approach to local public service delivery. The chapter, based on the finding of the study, outlines several policy recommendations for improving electricity service in rural India. It also points out some unanswered questions and identifies issues for further research.

Chapter 2

Reinventing Public Service Delivery

Decentralisation and Participation in Governance of Service Delivery

Too often, services fail poor people- in access, in quantity, in quality. But the fact that there are strong examples where services do work means governments and citizens can do better. How? By putting poor people at the center of service provision: by enabling them to monitor and discipline service providers, by amplifying their voice in policymaking, and by strengthening the incentives for providers to serve the poor.

World Development Report 2004 (World Bank, 2003: 1)

People's participation is becoming the central issue of our time… People today have an urge- an impatient urge- to participate in the events and processes that shape their lives. And that impatience brings many dangers and opportunities… If properly nurtured in a responsive national and global framework, it can also become a source of tremendous vitality and innovation for the creation of new and more just societies.

Human Development Report 1993 (UNDP, 1993: 1)

2.1 Introduction

The future of public service delivery, particularly to the poor, has been an issue of contention in the developing countries, at the level of national and sub-national governments, international financial institutions, development organisations and social movements. The contention is so intense that, in recent years, we have seen major shifts in global policy paradigm for public service delivery- from state provision of the services to market oriented reforms

in 1990s, to introduction of 'democratised governance' in service delivery systems during the current decade. In all these paradigms, however, the quest has been for improving efficiency and effectiveness in service delivery. The current paradigm of democratic governance in service delivery emphasises 'decentralisation' to and 'participation' of service users. While the intrinsic values of decentralisation and participation makes them desirable goals in their own right, as the proponents claim, it has mostly been promoted to improve efficiency and effectiveness of public services through equitable, responsive and efficient management. However, the jury is still out. The chapter analyses the theoretical foundations and practical implications of the current paradigm for public service delivery. The chapter explores normative claims around potential of the current paradigm, which relies on the users and their democratic capabilities, to bring in efficiency and effectiveness in service provision- something the state and the market failed to achieve.

Provision of basic services, such as health, education, water and electricity, all of which are largely being provided by the state, are systematically failing- and especially failing for the poor (World Bank, 2003). Centralised state provisioning of basic services has ended up, undermining its objective of uniform provision, in non-uniform and inefficient delivery patterns (Bardhan and Mookherjee, 2006: 102) and weak relationship between the service providers and the users (Barnes, 2007). The result is very limited access to modern infrastructure and services among the poor, particularly in low-income countries. Where there is physical access to these services, the quality, reliability and effectiveness remains poor. Public spending on these services seems to have a weak relationship with effective outcomes (Ahmad et al., 2005: 1) due to systemic problems like under-management, weak accountability mechanism, corruption and rent-seeking (Chand, 2006: 18-22; World Bank, 2006: 1-4). This has led to questioning of state capability and centralised approaches to deliver local public services.

In the era of 'new governance', the state and its institutions has been

seen as chief source of many problems in society, predominantly the economic ones (Pierre, 2000: 1), resulting in its retreat by handing over many of its responsibilities to non-state actors (Rhodes, 1996; Rhodes, 2003), including the responsibilities to deliver vital services. During initial phase of the era, the space vacated by state's retreat was captured by the market players in the name of 'reforms'. The advocates have portrayed reforms as "an indispensable and positive transition in service delivery, a necessary move away from the outdated public policy of previous decades and a pre-condition for economic growth and social development" (Chavez, 2006: 1). The view echoed World Bank's new discourse on development that emphasised on the importance of institutions and governance, considering existence of 'week institutions' and 'poor governance' as the main hindrance to development (Kagia, 2005). After a decade of reform experience, however, it is realised that market-oriented reforms based on 'good governance' establishes the supremacy of 'economics'; it has been criticised for undermining social and economic benefits of a vast majority of the population, particularly disadvantaged sections of the society.

In response to the perceived failure of 'statist' model and market reforms, drawing on analytical critiques, an alternative perspective emerged that emphasised on 'public control over governance' or 'democratisation of governance' as a solution to the crises in public services (Wagle and Dixit, 2006). This alternative perspective traces the roots of the crisis to strong control wielded by vested interests in public as well as private service delivery mechanisms. It emphasises "management of affairs in the public (non-private) domain of society, in order to serve the public interests at large" and thus increase transparency, accountability and participation in governance of service delivery (Wagle and Dixit, 2006: 26). In the wake of these changes and with the objective to increase transparency, accountability and participation, governance of many public services has been decentralised to local governments and newly established micro-institutions of users.

In this context, the chapter analyses the emergence of decentralisation

and users' participation in development debate, and subsequent shifts in governance of public service delivery. The emerging literature frequently visualises decentralisation and democracy together, leading to the concept of 'democratic decentralisation' and 'democratic local governance' (Blair, 2000; Manor, 1999). Democratic decentralisation is described as a status or process where resources, power, authority, and often, tasks and responsibilities are transferred to 'lower-level' or 'local units of governance' "which are largely or wholly independent of higher levels of government, and which are 'democratic' in some way and to some degree" (Manor, 1999: 6) and "accessible and accountable to local citizenry" (Blair, 2000: 21). The 'democratic' component of democratic decentralisation requires the local/decentralised units to be open for participation (direct or representation), accessible and accountable to citizens (or users in service delivery). However, association of decentralisation and democracy is problematic; decentralisation does not necessarily imply democracy- and vice-versa (Crook and Manor, 1998: 2; Hutchcroft, 2001: 33).

In this chapter, I consider decentralisation and participation as two different approaches for public service improvement; analyse their origin, transformation and convergence in development context; and interrogate the various forms and degrees they take on, their underlying rationale, and outcomes. The chapter is organised as follows. Section 4.2 analyses transformations in decentralisation paradigm- from progressive public administration era through new governance era- in post-World War II period. Section 4.3 analyses transformations in participation paradigm- from participation in democracy to participatory development- during the same period. The final section provides some concluding thoughts on the way forward for governance of public service delivery.

2.2 Unpacking Decentralisation: Progressive Public Administration to New Governance

Decentralisation is not a new concept; it has taken place across the globe over the 20th Century (Ribot, 1999). Since 1980s, however, decentralisation of

governmental functions for development objectives has become a true global movement- affecting most developing countries (Bardhan, 2002; Dillinger, 1994; Hutchcroft, 2001; Larson and Ribot, 2004; Manor, 1999; Work, 2002; World Bank, 2000) - induced by several pressures like poor governmental performance, rapid urbanisation, democratic transition, societal demands and shifts in lending portfolio of international donors (Diamond, 1999: 120-121). During this period, the concept of decentralisation has become so popular, particularly among bilateral aid donors and academics, that it is referred as 'the latest fashion' (Conyers, 1983: 97) and 'a fashion of our time' (Manor, 1999: 1). Though the concept has been widely used, there is a lack of comprehensive framework of decentralisation due to its use in various ways and in different context. As Mawhood (1983: 1) claims, "[d]ecentralization is a word that has been used by different people to mean a good many different things." It has been seen as a means of 'shifting power away from the commandist state' by neo-liberals, an alternative strategy for poverty reduction by critic of centralised interventions, a means of encouraging cooperative development by village communities and an opportunity for use of local knowledge by 'anarcho-communitarians'[6], 'a substitute for democratisation at the national level' by the leaders in autocratic regimes to gain legitimacy and grass roots support, and finally as 'a device for deepening democracy' by advocates of pluralist and competitive politics (Crook and Manor, 1998: 1; Manor, 1999: 1). On the other hand, the western world sees it as an alternative to provide public services in a more cost- effective way; developing countries are pursuing it to counter economic inefficiencies, macroeconomic instability, and ineffective governance; post-communist transition countries are embracing it to transit to market economies and democracy; Latin America is decentralising in response

[6] Bardhan (2002: 186) confers the unifying name 'anarcho-communitarian' to the group of post- modernist anthropologists, multicultural advocates, grassroots activists and proponents of indigenous technologies and people, who are usually 'anti-market and anti-centralized state'.

to political pressure to democratise; and African states view it as a strategy for national unity (Ebel and Yilmaz, 2001: 1).

Decentralisation has conventionally been defined as transfer of power, authority and responsibility from higher to lower levels of government- from national to sub-national to local levels (Fesler, 1965; Maddick, 1963; Rondinelli, 1980; Rondinelli and Nellis, 1986; Rondinelli et al., 1983). In this conventional sense, Scott (1996: 3) argues, “decentralisation might be seen as a simple structural consequence of a re- allocation of functions within government.” Decentralisation is not so simple, as it can take on numerous forms and degrees with various reasons. It is rather a process of redefining structures, governance procedures and practices. Mawhood (1983: 18) defines decentralisation as “the sharing of part of governmental power by a central ruling group with other groups, each having authority within a specific area of the state". Smith (1985: 1) argues “[d]ecentralization involves the delegation of power to lower levels in a territorial hierarchy, whether the hierarchy is one of governments within the state or offices within a large-scale organization.” Both Mawhood and Smith highlight spatial aspect of decentralisation though pointing power ceding in a political- administrative and territorial hierarchy. Rondinelli (1980: 137) provides a more comprehensive definition of decentralisation: “...the transfer or delegation of legal and political authority to plan, make decisions and manage public functions from the central government and its agencies to field organizations of those agencies, subordinate units of government, semi-autonomous public corporations, areawide or regional development authorities; functional authorities, autonomous local governments, or non-governmental organizations.” Comprehensiveness of the definition lies in its recognition of non-governmental actors and institutions as part of decentralisation process; still it is limited in the sense that decentralisation is treated as a process that occurs within political systems and the process remains top-down.

Decentralisation as a concept has evolved and transformed, over time

with undergoing social, economic and political changes, to take on diverse and varied meanings, forms and objectives (Rondinelli, 2005). Scott (1996) demonstrates the transformation of decentralisation by pointing out the shifts in its objectives at different points in time. During 1950s and 1960s, decentralisation was introduced in many post- colonial countries as an attempt "to create or recover indigenous local government from colonial practice." In 1970s, the objective shifted "to achieve greater responsiveness and responsibility" in public administration. In 1980s, decentralisation was promoted as a method of "effective 'bottom-up' planning", in response to perceived failure of centralised planning. In 1990s, there was shift in application of the concept to achieve "a functional division between policy-making and execution", moving away from territorial and structural concerns (Scott, 1996: 3-4). The shift in 1990s left the central unit with "power without responsibility" (Scott, 1996: 14) where it holds the power to make overall policy, while the decentralised units got the responsibility to execute these policies. In this phase, under influence of New Public Management, the objective of decentralisation shifted to achieve cost-effectiveness and establish accountable units of management (Scott, 1996: 13). However, a new wave of change that emerged in late 1990s, and is still underway, draws attention to 'democratic decentralisation' as the favoured reform strategy for public service delivery, whose 'democratic' content lies in participation of service users in decentralised units/agencies (Crook and Manor, 1998).

Clearly, there are two broad stages in development of decentralisation: first, the *Progressive Public Administration era* that started after World War II and continued till 1980s; second, the *New Governance era* that started in early 1980s and still continuing. During the progressive public administration era, decentralisation was seen as a process of sharing authority, responsibility and resources- through deconcentration, delegation and devolution- within the government and its agencies (Cheema and Rondinelli, 2007; Rondinelli, 1980; Rondinelli et al., 1983). It was primarily because, during the period, the state and government were perceived interchangeably. The

former was the institutional embodiment of state sovereignty and dominant source of political, legal and developmental decision-making and execution. In the new governance era, new concepts and practices of decentralisation are emerging- labelled as 'democratic decentralisation', 'democratic local governance' and 'decentralised governance' simultaneously- with new institutions, new forms of participation, power sharing and new sources of influence over public policy-making and execution. In the following sections, I will explore the new forms of decentralisation emerged during the current era of new governance.

In the new governance era, there are four primary sources of influence which has resulted in transformation of decentralisation in theory and practice. The first profound influence comes from the emergence of new public management (NPM) in early 1980s as the new global paradigm for public administration. NPM includes a set of reforms, based on economic rationalism, in governance of public sector to improve economy and efficiency. Common (1998: 60) describes it as "the reassertion on traditional public administration plus introduction of managerial techniques and 'market values'." The objective of NPM was to reduce expenditure and cost while improving efficiency in public service. It sought to reduce the distinction between private sector and public sector by applying management techniques of private sector in public services and to reduce the limitations on discretionary power by reducing density of uniform and general procedural rules. The approach included disaggregating separable functions of public service into quasi-market forms, opening up provider roles to competition between public and private agencies, and deconcentrating provider roles to the minimum feasible size (Dunleavy and Hood, 1994: 9). The outcome was disintegration of monolithic public sectors into multiple functional and geographic segments and entry of private players in public services. It resulted in transfer of power, authority and responsibility to private actors and institutions from government institutions, thus giving a new dimension to decentralisation. The governments were pushed to 'steer rather than row' and supervise service provision rather than delivering it directly

(Cheema and Rondinelli, 2007: 4), reducing their direct authority to indirect control.

The second source of influence comes from emergence of a new governance paradigm. In the era of new governance, the state and the institutions of representative democracy on which it rests are viewed as unable to deal with the complexity of policy problems and to respond to differential needs of citizens. This realisation has contributed to pluralisation of the policy arena with non-state (or non-governmental) actors and organisations, including private sector and civil society associations. Government is now seen as one, albeit the dominant one, of the governance institutions that works collectively with other institutions of governance for decision- making and execution. Chhotray and Stoker (2009: 3) rightly claim that "[g]overnance theory is about the practice of collective decision-making". Kooiman (2000: 142) refers it as a 'two-way traffic', "based upon broad and systematic interactions between those who are governing and those who are governed." Governance is about reshaping the relationship between the nation-state and the citizens, service providers and users. It sees the service users not as recipients or customers, but as co-producers by empowering them to manage and monitor service delivery. It has affected practice of decentralisation with a shift from transfer of power, authority and responsibility within government institutions to sharing or power, authority and responsibility among various governance institutions with wider public participation.

Globalisation process has also significantly influenced the form decentralisation has taken in recent years. Globalisation- in the narrow sense of 'economic integration in the international system'- has created pressure for relocation of decision-making authority away from the nation-state, upward to supra-national institutions or downward to sub-national and grassroots institutions. In the developing countries, the relocation has often been downward (Sharma, 2005: 3). Globalisation has shaped not only the concepts of economic growth, but also perceptions of governance and functions of

government by relocating much of decision-making power away from the national governments. At the same time, deconcentration of economic activity within state, as part of globalisation process, has exhorted pressure on governments to enhance the administrative and fiscal capacity of sub-national, regional and grassroots agencies and institutions, to facilitate participation in the open global market (Cheema and Rondinelli, 2007: 5). Global economic integration has been facilitating decentralisation by reducing economic costs associated with small agencies and institutions; the process also strengthens the decentralised agencies of governance by making them economically autonomous.

Finally, shifts in development paradigm, during same period, is claimed to have significant influence over decentralisation process. The shift from central economic planning towards bottom-up planning and participatory development to achieve growth-with-equity objective has led to increasing call for decentralisation (Cheema and Rondinelli, 2007: 3). The development paradigm has undergone a dialectical movement that involves the idea of commandist state at one end and minimalist state in other end. Till mid-1980s, state-directed development was the dominant principle that has contributed to extreme forms of centralisation. It resulted in top-down planning and resource allocation, and cautious moves of decentralisation within government institutions. The second phase of development paradigm, beginning in late 1980s, is obsessed with curtailing economic and developmental role of the state and reducing size of public sector. This shift in development paradigm, taking place simultaneously with the governance changes, has created a need for grassroots civic institutions to share responsibilities and resources that used to be at the discretion of government institutions.

Better understanding of decentralisation requires explaining why it occurs, what objectives it wishes to achieve and what form it takes. Various explanations have been provided for why decentralisation occurs- pressure from economic crises, increasing fiscal and administrative burden at centre, failure

of central administration, donor pressure and conditionalities of structural adjustment programme, policy transfer and emulation, pressure from regional splinter groups (Ribot, 2002: 7). The dominant explanation remains political-failure of centralised state. However, decentralisation is often a conjunctional result of multiple forces. In case of service delivery, the major driving forces are increasing burden on public funds, under- management, declining efficiency and effectiveness.

With multiple forces working at the back, decentralisation aims to achieve several objectives. Conyers (1999: 3-7) provides four broad categories to outline objectives of decentralisation. Firstly, decentralisation has been frequently promoted as a means of *local empowerment*, directly or through representative institutions. Local organisations, international agencies, NGOs and central governments advocate local empowerment for different purposes- to influence national policies that affect local affairs, to promote democracy, to prevent secession, or to reinforce the role of their organisation. Secondly, *increasing the efficiency and effectiveness* of development planning and implementation has been the overriding impetus for decentralisation in the public sectors as well as private sectors, particularly since 1980s. Thirdly, decentralisation is also pursued by the governments to *achieve national cohesion and increase central control*. In this case, the nature and extent of decentralisation is limited by the aim of gaining central control rather than losing it. Finally, decentralisation advocated as part of structural reforms, by the World Bank and other bilateral agencies, is designed to *reduce public expenditure* by using existing financial resources more efficiently, increasing revenue base and transferring financial responsibilities to decentralised units. The objective of local empowerment and public expenditure are unique to the current decentralisation strategies initiated during the new governance era. While first two objectives are explicitly stated in decentralisation plans, as they appeal to general public, the last two are often implicit and unlikely to be spelled out. On the other hand, there are conflicts between the objectives: it is difficult to achieve local empowerment while increasing central control; and

the objective of increasing efficiency and effectiveness is affected by pursuing the objective to reduce public expenditure (Conyers, 1999: 7). So the success of a decentralisation initiative would partly depend on the balance of objectives.

When it comes to decentralisation in service delivery, the overriding objective has been increasing efficiency and effectiveness, while reducing public expenditure. The failure of public service delivery is blamed on under-management and aggregate resource constraints (Dillinger, 1994: 7). Decentralisation is believed to address these problems and bring in economic and administrative (or managerial) efficiency through accounting for costs in decision-making, increasing accountability, reducing transaction costs, matching service to needs, mobilising local knowledge, improving coordination and providing resources. At the same time, decentralisation is also expected to improve equity through greater retention and fair distribution of the benefits accrued (Ribot, 2002). However, the other objectives are not ignored, if not given equal importance, in public service reforms. Even in the case of public service decentralisation, efficiency and effectiveness gain and local empowerment are often projected as explicit objectives to gain public support for reforms. Though the objectives of public expenditure reduction and retraining central control are given significant importance in design of decentralisation initiative, they are rarely spelled out.

There is a close relationship between the objectives of decentralisation and the form which it takes: the objectives determine the form; the form determines the achievement of objectives. Rondinelli et al. (1983: 13-32) identify four different forms of decentralisation based on the organisation to which power is transferred from the central government administration. Firstly, *deconcentration* is defined as a transfer of power to local administrative offices of the central government; Secondly, *delegation* as the transfer of power to parastatals; thirdly, *devolution* as the transfer of power to sub- national political entities; and finally, *privatisation*, as the transfer of power to private entities. Cheema and Rondinelli (2007) provide an updated and broader categorisation

based on the nature of decentralisation: administrative, political, fiscal and economic. *Administrative decentralisation* is the strategy for redistributing authority, responsibility and financial resources for delivering public services among different levels of governance. It includes deconcentration of central government structures and bureaucracies, delegation of authority and responsibilities from central government to it its agents, and decentralised cooperation among the agencies performing similar functions. *Political decentralisation* aims to give citizens and their local representatives more power in public decision making. It includes organisations and procedures for increased citizen participation in representative selection and in public policy making, the resulting change in government structure, and institutions for power sharing. *Fiscal decentralisation* aims for dispersal of financial responsibilities among different agencies of governance. It includes the means and mechanisms for fiscal cooperation in sharing public revenues, fiscal delegation in revenue raising and expenditure allocation. *Economic decentralisation* seeks to shift responsibilities from public to private sector. It includes market liberalisation, deregulation, privatisation of state enterprises, and public-private partnership (Cheema and Rondinelli, 2007: 6-7).

These categorisations have been criticised for their broadness and inability to demonstrate the relationship between objectives and forms of decentralisation. Conyers (1999: 8) points out five different dimensions of decentralisation to distinguish between different forms: the types of functions decentralised; the types of powers decentralised in relation to those functions; the level to which powers are decentralised; the institutions to which they are decentralised; and the method of decentralisation. These five dimensions together determine the form decentralisation takes and the extent to which it achieves any particular objective. For best achievement of the objectives, decentralisation must match the type of functions and powers decentralised, the level and institutions to which they are decentralised, and the method of decentralisation with the objectives.

Decentralisation, in essence, is a process of institution building; its success depends on "strengthening the managerial and technical capabilities" of local governance institutions (Rondinelli, 2005: 401). It not only strengthens the existing local institutions, but also creates new institutions to take on specific functions. In recent years, many community based functional institutions have been created to share responsibilities of public service delivery at micro level. The proliferation, pluralising the institutional network at grassroots, has littered the development landscape "with committees... mandated as 'user groups' to take on some of the functions of provisioning, regulation and management that previously resided with the state" (Cornwall and Gaventa, 2001: 9). Sustainability and success of these institutions will largely depend on public participation in these institutions. The next section analyses the transformations in participation paradigm.

Drawing on the debate on decentralisation, as discussed above, I aim to find out whether decentralisation in public service can improve efficiency and effectiveness of service delivery, particularly in electricity service delivery. Does decentralised service delivery emerge as an alternative to centralised provisioning? Has decentralisation brought the service providers closer to service users? The thesis will also find out whether decentralised model addresses the economic inefficiencies and makes service delivery cost effective. As suggested by the theory, does it promote cooperative development by village communities? Does decentralisation provide a platform for service users' participation and leadership development? The thesis aims to find answers to these questions by assessing certain indicators, which are discussed in chapter 4.

2.3 Unpacking Participation: Democratic Participation to Participatory Development

During the past two decades, consensuses have emerged in both academic and policy arenas about the importance and desirability of participatory approaches for resource management and service delivery. The advocates of participatory

approaches form two groups: one views participation as a means to achieve institutional efficiency, and the other sees participation as furthering the goals of empowerment, equity and democratic governance (Puri, 2004). Along the same lines, Beresford (2002) refers to two distinct approaches to participation: consumerist and democratic approaches. The consumerist approach seeks to enhance three Es – efficiency, economy, and effectiveness – through collecting the external input from people, which the initiating agencies then decide how to use. On the other hand, the democratic approach insists that participation should be bestowed with the direct capacity and opportunity to effect change. This approach recognises the significance and the role of power in participation and is concerned with its equal redistribution (Beresford, 2002). While the first view seeks to achieve what the state and market failed to do, through institutionalising participation at the community level, the second view seeks to develop a democratic culture at the community level as well as empower the people, particularly the excluded, by putting them first.

In the era of new governance, the state has been retreating, leaving space for citizen action. New models of governance and development focus on citizen participation, conferring a new meaning on participation. However, there is scepticism about the retreat of the state on two grounds: first, the state is trying to transfer its responsibilities to people by rolling itself back; second, the space vacated by the state for citizen action is often captured by the market, turning citizens into consumers. The supporters of the democratic approach are concerned that participation is in danger of being reduced to a technique (for delegating responsibilities to people) that could become separated from the democratic participation (Blackburn and Holland, 1998). This section, while analysing the broad concepts of participation and their implications, seeks to differentiate between democratic participation and participatory development. While both the approaches (democratic and developmental) towards participation are complementary and could co-exist, it does not necessarily mean that they are the same. The section also explains how they vary in approach, objective and outcome.

Before going into further detail, I will briefly outline the general understanding of participation. Participation is a nebulous concept and has different meanings and usages: at one end of the spectrum, it could simply mean nominal membership in a forum, and at the other end, it could delegate full managerial power to the participants and ensure their effective voice in the decision making. To the extent that the term 'participation' has been used by policy makers, developmental organisations and democrats, 'any precise, meaningful content has almost disappeared: 'participation' is used to refer to a wide variety of different situations by different people' (Pateman, 1970: 1). In its simplest sense, the term 'participation' can be defined as the "[a]ct of being involved in something" (Wates, 2000: 194). Verba (1967) defines participation as the "acts by those not formally empowered to make decisions – the acts being intended to influence the behaviour of those who have such decisional power. And successful participation refers to those acts that have (at least in part) the intended effects" (p. 55). Verba's definition implies that participation is a process of influencing decision makers by those who do not have the formal power to make decisions. Central to the idea of people's participation is the active involvement of the passive recipients, those affected by the decisions. In a classic article, Sherry R Arnstein treats 'citizen participation' as a synonym of 'citizen power' – "the redistribution power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future…the strategy by which the have-nots join in determining how information is shared, goals and policies are set, tax resources are allocated, programmes are operated, and benefits like contracts and patronages are parcelled out" (Arnstein, 1969: 216). In this definition, participation is treated as an inclusive process of decision making where the have-nots are considered equal to the affluent. Thus, participation serves as an end in itself by inducing social reforms and contributing to individual development. Pateman (1970) rightly argues that the "output [of participation] includes not just policies (decisions) but also the development of the social and political capabilities of each individual, so that there is 'feedback' from output to input [participation]"

(p. 43).

2.3.1 Democratic Theories, Participation and Citizenship

In a democratic setup, the notion of citizenship contains the element of participation. With developments in democratic theory, the notions of citizenship and participation have been constantly changing. There has been a shift from the conventional idea of citizenship as a 'universal legal status' to a conception of 'participatory citizenship' entailing an extended notion of active participation beyond electoral and passive participation (Mohanty and Tondon, 2006). The shifts can be better explained by focusing of developments in democratic theory and the importance of participation at each stage. In this section, I will briefly discuss four broad theories of democracy – *classical (direct) democracy*, *contemporary (representative) democracy*, *participatory democracy*, and *deliberative democracy* – from the perspective of citizen participation.

The idea of people's participation goes back to the classical democracy of Greek city-state Athens, which functioned as a direct democracy. The direct participation of the 'citizens' in legislative and judicial functions was integral to the ancient Greek *polis*. Citizens were treated equally "in order to be free to rule and to be ruled in turn" (Held, 2006: 27). All citizens had equal access to public offices. This is reflected in Aristotle's definition of citizen – "someone who is eligible to participate in deliberative and judicial office" (Aristotle, 1998: III 1 1275b). In contrast to the modern state, there was no distinction between citizens and officials. The obstacles to participation common to modern complex and large societies were not noticeably present. The Assembly (with a quorum of 6000 citizens) was the sovereign body. While unanimity of interest was always sought, the possibility of differences in opinion and clashes of interest was recognised and resolved through voting (Held, 2006: 17). Citizens were appointed to public offices by lot, and all offices were subject to rotation due to Athenians' distrust of political professionalism. The classical democrats perceived knowledge and expertise as a source of power (Manin, 1997: 32).

Although Athenian democracy emphasised active citizen participation,

citizenship status was limited to a very few people. Only free male adults of Athenian origin were entitled to citizenship. Athenian democracy in practice was patriarchal in nature, excluding women from political participation and limiting their role to the production of citizen sons. A large proportion of adult males were also excluded from citizenship status, and thus participation, on the basis of birth and freedom. Immigrants, even those whose families had settled in the city-state several generations earlier, and slaves were not granted citizenship, thus undermining equality. Held (2006) rightly claims that 'classical conceptions of political equality were far removed from ideas about "equal power" for adults; political equality was a form of equality for those with equal status ([free] male and Athenian born)' and refers to Athenian democracy as a 'tyranny of citizens' (p. 19). While ensuring the citizens' equal right to participate in the Assembly, to hold public offices and be heard before them, Athenian democracy failed to ensure equality within society by excluding many on the grounds of collective identities – women, slave and alien.

In contrast to classical democracy, the proponents of contemporary (representative) democracy promote inclusive citizenship, irrespective of identity and status, through universal suffrage. While citizenship, as a legal status, and certain rights and duties have been extended to all the population in a nation state, the contemporary doctrine of democracy rejects the direct participation that was so central to classical democracy, labelling it unrealistic. The architect of representative democracy, James Madison, portrayed representative democracy as a superior form of government to direct democracy. In his view, it provides a mechanism "to refine and enlarge the public views, by passing them through the medium of a chosen body of citizens, whose wisdom may best discern the true interest of their country, whose patriotism and love of justice will be least likely to sacrifice it to temporary or partial considerations. Under such a regulation, it may well happen that the public voice, pronounced by the representatives of people, will be more consonant to the public good than if pronounced by the people themselves, convened for the purpose" (Madison, 2004: 66). In his book *Capitalism,*

Socialism and Democracy, Joseph A Schumpeter, the main advocate of this doctrine in the twentieth century, defended the view that citizen participation is not essential to democracy and should be limited to electoral participation (voting). Considering the classical doctrine unrealisable in modern societies, he provided a more realistic definition of democracy: "the democratic method is that institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people's vote." To him, "the role of people [citizens] is to produce a government, or else an intermediate body which in turn will produce a national executive or government" (Schumpeter, 1943: 269). According to this definition, the essential feature of a democracy is electoral competition, both as a process and institution, and the only way citizens can participate in it is by voting for their leaders. A similar argument regarding the centrality of electoral competition in democratic setups is made by Robert Dahl in *A Preface to Democratic Theory*. He goes on to argue that increased participation of the common people could result in a declining consensus on the basic norms of democracy by increasing political activity and bringing in lower socio- economic classes who are 'authoritarian-minded' (Dahl, 1956: 89). Giovanni Sartori echoed this view on citizen participation. He asserts that active participation of the common people in the political process could be dangerous, as it might lead to totalitarianism. He suggests that the people should react, not act (Sartori, 1965: 77).

In a representative democracy, political authority is held by a group of office holders who have attained the offices through competitive election. They are granted the authority to make decisions by those who are to comply with the decisions (Kateb, 1992; Manin, 1997). Manin, going further, challenges the claim that in classical democracy the *demos* (Assembly) had the complete authority to make decisions: "Substantial powers – sometimes greater than those of the Assembly – were assigned to separate, smaller bodies" whose members were "mainly appointed by lot." So, for him, the difference between the two forms of democracy is not the size of the sovereign body but the

method of selection of the members of these bodies (Manin, 1997: 41). Another significant difference between the two democratic forms is their attitude towards political professionalism: while professionalism is distrusted in classical democracy, in contemporary democracy, political professionalism is encouraged since the common citizen is regarded as incapable of taking all kinds of decisions.

In 1960, a new doctrine of democratic participation emerged that emphasised participation and treated it as a means to the end of decision making and self- development. This new doctrine, referred to as participatory democracy, was influenced by Tocqueville's observation of the educative effects of democratic participation (Mansbridge, 1999). The term 'participatory democracy' was coined by Arnold Kaufman in 1960 in a classic article, where he argues that "a democracy of participation may have many beneficial consequences, but the main justifying function is and always has been, not the extent to which it protects or stabilizes a community, but the contribution it can make to the development of human powers of thought, feeling and action" (Kaufman, 1960: 272). He further argued that direct participation is an 'effective and indispensable' way of reducing irrationality in decision making. The idea of participatory democracy was popularised through *The Port Huron Statement*, a manifesto produced by a group of students who claimed that participation would bring people 'out of isolation and into community' and would thus serve as a 'means of finding meaning in personal life' (Hayden, 1962). A decade later, Carole Pateman carried forward the argument in her book *Participation and Democratic Theory*. She argued that "the major function of participation in the theory of participatory democracy is…an educative one, educative in the very widest sense, including both the psychological aspect and the gaining of practice in democratic skills and procedures" (Pateman, 1970: 42). Participatory democracy seeks to create opportunities for citizens to make meaningful contributions to decision making while broadening the range of people who have access to such opportunities. As opposed to representative democracy, participatory democracy reinstates the citizenry's capability to make decisions

and argues that capability is enhanced by participating. It argues that citizens and their institutions cannot be viewed in isolation.

Participatory democratic theory emerged in the 1960s, flourished in the 1970s, and began waning in the 1980s (Mansbridge, 1999), leading to another phase in democratic theory – deliberative democracy. The newest phase of transformation in democratic theory has come to be called the 'deliberative turn' (Dryzek, 2000: 1). Deliberative democracy is a system of decision making based on some kind of trade-off between direct participation and representation. "Deliberative democracy affirms the need to justify decisions made by citizens and their representatives; …leaders should therefore give reasons for their decisions, and respond to the reasons that citizens give in return" (Gutmann and Thompson, 2004: 3). The core focus of the doctrine lies in the nature and source of legitimacy in democratic decision making. In contrast to representative democracy, deliberative democracy argues that legitimate law-making can occur only through public deliberation by the citizenry. Such public deliberation may take place in formal, highly structured settings or in diffused grassroots organisations.

Transformations in democratic theory have led to shifts in the notions of citizenship and participation. At each stage of democracy, citizenship and participation have been conferred with new meanings. The difference between the classical citizen and the contemporary citizen, as argued by Pocock (1998), is that "the former ruled and was ruled, which meant in other things that he was a participant in determining the laws by which he was to be bound. The latter…could go into court and invoke a law that granted him rights, immunities, privileges, and even authority, and that could not ordinarily be denied him once he had established his right to invoke it" (p. 40). In classical democracy, although direct participation of the citizens was ensured, very few people had access to citizenship status. In contrast, in representative democracy, citizenship status has been extended to everyone while limiting their participation. The latter two forms have demanded greater participation

while also providing universal access to citizenship. While political professionalism was distrusted in classical democracy and the capability of common citizens to make decisions was doubted in representative democracy, the latter two forms accept professionalism and reinstate the belief that citizens have the capability to participate. Participatory democracy argues that capability is enhanced by participation, and deliberative democracy argues that legitimate decisions can be made through participation (deliberation).

2.3.2 Democratic Approach to Participation and Political Efficacy

The basic idea behind the argument for citizens' participation is that "people can and should govern themselves" (Pitkin and Schumer, 1982: 43). Those who argue for participation believe that citizens are capable of participating in decision making. As mentioned in the earlier section, there is a further claim that participation enhances that capability and makes 'better citizens' (Mansbridge, 1999) while producing better outcomes in decision making. In this section, I will discuss how this view was developed, how participation produces better citizens, and what constitutes 'better'.

To begin with, Aristotle's ideas about political participation focus on the importance of participation to the pursuit of happiness, or human flourishing (*eudaimonia*), and 'virtuousness'. Aristotle never claimed that participation develops the individual character of participants (Mansbridge, 1999; Mulgan, 1990), although he has been interpreted as doing so by some (Duvall and Dotson, 1998). Mulgan (1990) goes further to claim that Aristotle was a 'less than completely wholehearted' supporter of participation. Aristotle argued that the *polis* needs a government of good men, but good men do not need a government to participate in. In the presence of 'family and friends and a modicum of material wealth', individuals can pursue a life of happiness and virtue, even in the absence of a good *polis* (p. 211). Aristotle differentiates between a good citizen and a good man: "it is possible for someone to be a good citizen without having acquired the virtue expressed by a good man" (Aristotle, 1998: III 4 1276b). As the characteristics of a good citizen change

depending on the constitution, a good citizen in a less virtuous *polis* would be a less virtuous man. Therefore, only in a good *polis*, i.e. aristocracy, will the good citizen be a good man (Duvall and Dotson, 1998).

Although Aristotle talked about human virtue, he did not discuss the development of individual ability. Rousseau, a believer in participation, was the first to popularise the concept of the 'development of human faculties', although he was more concerned about moral development. To him, the absence of active participation meant the absence of a citizen's freedom and the death of the state. However, he did not argue that participation in decision making with others develops human faculties (Mansbridge, 1999).

Based on his observation of American democracy, Alexis de Tocqueville was the first to spell out the educative effects of participation. He suggested that the character of people, including 'the labourers of a village' and 'the lower orders', could be improved in a direct democracy (Tocqueville, 2003: I 269-287). Observing the town meetings in New England, he argued that participation can change a citizen's character in two ways. Firstly, participation guarantees freedom to citizens and teaches them how to use it: "Town institutions are to freedom what primary schools are to knowledge: they bring it within people's reach and give men the enjoyment and habit of using it for peaceful ends" (Tocqueville, 2003: I 73). Secondly, by participating in their local sphere, people absorb the spirit of participation, acquire 'a taste for order', understand "the balance of powers and [have] clear, practical ideas on the nature of…[their] duties and the extent of…[their] rights" (Tocqueville, 2003: I 82).

Influenced by Tocqueville's work, John Stuart Mill was first to argue for democracy based on the effects of participation on individual character. He argued that people should participate in decision making to achieve better outcomes as well as to promote self-development. He specified three forms of self-development that people can achieve through political participation: virtue, intellectual stimulation and activity. He advocated participation and its effect on individual development primarily for their contribution to the larger

polity rather than for the good it might bring to individuals. However, he did not advocate the participation of individuals as equals; he argued for a voice in decision making, not an equal voice (Mansbridge, 1999: 306-310).

A century later, Arnold Kaufman presented a similar view on the educative effects of participation when he introduced the doctrine of participatory democracy. To him, "participation essentially involves actual preliminary deliberation (conversations, debate, and discussion) and that in the final decision each participant has a roughly equal formal say" (Kaufman, 1960: 281). He argued that "the main justifying function of participation is development of man's essential powers- inducing human dignity and respect, and making men responsible by developing their powers of deliberative action" (p. 289). Mill's goal of developing individuals' powers was echoed by Kaufman when he argued for development of the powers of 'thought', 'feeling', and 'action'. However, he cautioned that more empirical study was required to prove the educational benefits of participation and to devise ways to implement participation in specific social spheres.

Carole Pateman extends the argument in *Participation and Democratic Theory*: "The major function of participation in the theory of participatory democracy is…an educative one, educative in very widest sense, including both the psychological aspect and the gaining of practice in democratic skills and procedures" (Pateman, 1970: 42). She emphasises the 'psychological or characterological' benefits of participation. She also argues that participatory systems will be stable and self-sustaining because of their educative effects: "…there is no special problem about the stability of a participatory system; it is self-sustaining through the educative impact of the participatory process. Participation develops and fosters the very qualities necessary for it; the more individuals participate the better able they become to do so" (Pateman, 1970: 42-43). In her analysis of participatory democracy, Pateman stresses the importance of "confidence in one's ability to participate responsibly and effectively, and to control one's life and environment", which she refers as

'political efficacy' (pp. 45-46). She goes beyond political participation to include participation in the workplace as an educative process. Pateman identifies, in the spillover thesis, a direct link between workplace participation, political efficacy, and political participation. She claims that participation in workplace decision-making will spill over into wider society by increasing participation in political activities beyond the workplace. Pateman points out four potential benefits from participation: political efficacy, the sense of cooperation, commitment to collective decisions, and democratic character. All these have value as they help democracy to function (Mansbridge, 1999: 314).

Although similar arguments have been made in later writings (Peterson, 1992b; Peterson, 1992a; Verba et al., 1995; Mansbridge, 1999; Luskin and Fishkin, 2004), the ideas on participation (both political and beyond) and its spillover effects still remains a theory, with little empirical evidence to support it. In recent years, the spillover thesis has been criticised for being too simplistic, and opponents have argued that it is in need of re-evaluation or revision. The revisionists claim that participation may not always have a positive impact and participation may only contribute to political efficacy in specific 'contexts' (Ayala, 2000; Carter, 2006; Greenberg et al., 1996). From this discussion, it is evident that the debate on participation and its effects has been expanding alongside developments in democratic theory. As the concept of participation has broadened, so has its expected outcome grown.

2.3.3 Developmental Approach to Participation and Efficiency

In the post-World War II period, the state became the primary agent of development and people became passive recipients. The prevalent notion of state-centric development linked the state's ability to operate autonomously of socially dominant classes, forces and interests to its ability to formulate and pursue 'collective goals' in order to provide collective goods (Evans, 1995). The underlying assumption was that the greater the autonomy, the stronger the state, and a strong state was better able to transcend aggregate interests in the promotion of economic growth. States with a 'centralised and

purposive authority structure', a 'competent bureaucracy' and effective coercive institutions were considered conducive to development (Kohli, 2004: 10). After two decades of experience, state-led development proved unable to improve living conditions, particularly of the poor, in the Third World. A combined effect of the global economic crisis of the late 1970s and neoclassical economics led Western development institutions to endorse sweeping neoliberal policies that minimised the state's role in development, leaving in effect a 'hollowed out' state. The Washington Consensus conferred legitimacy upon these neoliberal policies and proposed a set of Structural Adjustment Programmes (SAP) to address state inefficiency, which minimised the direct role of the state in development. However, SAPs have also failed to address the problem of Third World development due to their overemphasis on market fundamentalism as opposed to state centrism.

As a response to the same problem, another set of theories on development, which emphasised 'participation in development' or 'participatory development', emerged during this period. Participatory development, as perceived by its advocates, is a strategy to include the 'beneficiaries' in the planning, implementation and evaluation of development projects. With regard to rural development, Cohen and Uphoff (1977) define participation as "people's involvement in decision-making processes, in implementing programmes, their sharing in the benefits of development programmes and their involvement in efforts to evaluate such programmes" (p. 7). The origin of participatory development can be traced back to the US Foreign Assistance Act 1966, which amended the original 1961 Act by adding Title IX, entitled 'Utilisation of Democratic Institutions in Development'. The new section stated that "emphasis shall be placed on assuring maximum participation in the task of economic development on part of the people of the developing countries, through the encouragement of democratic private and local governmental institutions" (as cited in Cornwall, 2006: 70).

In the 1970s, a host of United Nations' publications heralded the

practicability and value of participation and refined its parameters. It proposed "popular participation as an integral part of the development process" (Cornwall, 2006: 70). In 1979, the United Nations Research Institute for Social Development launched an inquiry into participation and defined it as "the organised efforts to increase control over resources and regulative institutions in given social situations, on the part of groups and movements of those hitherto excluded from such control" (Pearse and Stiefel, 1979; Stiefel and Wolfe, 1994: 5). In the 1980s, the debate became complicated by the divergence in focus between neoliberalism and participatory development. The focus on neoliberal policies replaced state centralism with market fundamentalism, leaving little space for participation. Furthermore, while participatory development proposed a bottom-up planning system, the neoliberal reforms followed a top-down approach. The neoliberal reforms were mostly designed at the top level (by development organisations in developed countries) and imposed at the bottom level in developing countries. However, these same development organisations fostered participation during this period precisely to gain legitimacy and counter grassroots resistance to the reforms (Rahman, 1995).

A study by Samuel Paul on the World Bank's experience in community participation in development projects defines participation as "an active process by which beneficiary or client groups influence the direction and execution of a development project with a view of enhancing their well-being in terms of income, personal growth, self-reliance or other values they cherish" (Paul, 1987: 2). The study finds that participation was a means to achieve better project results, which satisfy both the community and the authority. It was, as he argues, also a means to facilitate project execution. The study reveals that the World Bank has emphasised cost-sharing and co-production of services as dominant modes of participation, while barely any attention has been given to capacity-building and empowerment (Paul, 1987). Drawing on a workshop on participatory development organised by the World Bank in 1992, Picciotto (1992) challenges the claim made in democratic theory that 'participation is an

end in itself'. He claims that "emphasis on the intrinsic value of participation often dampens the appetite for results. When all is said and done, participation should be judged in terms of its contribution to substantive goals" (p. 2).

In the 1990s, the international development organisations made serious attempts to scale up popular participation in 'project design and financing'. Several workshops were organised and brought together development scholars and practitioners, non-governmental organisations, multilateral banks and non-economists. The development organisations publicised their views on participation. The World Bank defines participation in development as "a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" (World Bank, 1994: 1-2; World Bank, 1996: 3). The Asian Development Bank echoed this definition of participatory development (ADB, 1996: 1).

It was during the 1990s that the development organisations started engaging in the debate on empowerment. This is reflected in the Organisation for Economic Co-operation and Development's (OECD) view on participation: "participatory development stands for partnership which it will built upon the basis of dialogue among the various actors, during which the agenda is jointly sent, and local views and indigenous knowledge are deliberately sought and respected. This implies negotiation rather than the dominance of an externally set project agenda. Thus people become actors instead of being beneficiaries" (Schneider and Libercier, 1994: 3). The United Nations Development Programme also provides an extended interpretation: "Participation in development means more than participation in economic benefits; it is a process which can range from information, consultation to local people assuming ownership and responsibility of the development initiative" (UNDP, 1998). Cornwall (2006) claims that towards end of the decade, the notion of empowerment was well established within participatory development.

Although in recent years, the concept of participatory development has broadened to include notions of 'empowerment, 'democratic governance',

'right-based approach' and 'social accountability' (Cornwall, 2006), the approach still remains limited. Participation in development, although one of the most overused concepts in the past two decades, still remains one of the least understood. Its advocates probably deliberately lack clarity on its approach and methods so as to institutionalise participation in development projects. While there is agreement on the desirability of participation in development, there is no consensus among the promoting agencies on the level, nature and context of participation. The promoting agencies often target 'stakeholders', 'beneficiaries', or 'consumers' of public services. This approach to inclusion in participatory development often excludes a section of society who might have an indirect stake in the development. Inclusion of people on the basis of one overarching identity often undermines other identities they have and becomes an imposition, thus obstructing participation. Making participation inclusive and active requires recognising and striking a fine balance between homogeneity and diversity of identities. 'Bottom-up' planning is one of the recurring themes used in participatory development literature and is central to models proposed by participatory advocates. However, 'top-down' practices still predominate in most of the large development organisations (Corneille and Shiffman, 2004), and this makes it difficult to ensure bottom-up practice in development projects.

2.3.4 *Democracy versus Development: Approach and Objective*

From the above discussion, it is evident that we can separate the concepts of democratic participation and participatory development based on their origins and growth. However, they can coexist, and this is desirable. In this section, I will draw out the major points of difference between the two paradigms.

The first point of difference is lies in the approaches to participation in both paradigms. Who participates? How are they asked to participate? What are they asked to do? Whose interests do they represent? As is evident from the earlier discussion, citizens participate in the democratic paradigm, and 'stakeholders' or 'beneficiaries' participate in the development paradigm. The latter disadvantages a section of society on the grounds that they do not have a

direct stake in the particular project or other commitments and responsibilities. For example, Agarwal (2001) shows how women are excluded from community forestry due to social norms that define domestic work and child care as their responsibility and social perceptions that discount their abilities and opinions. This problem could be addressed if the approach to participation were to shift towards the political notion of 'citizenship' and translate the social practice of participation in projects into democratic political activity (Joseph, 2000). Along the same lines, Shapiro (2003) argues that a 'citizenship' approach will be more useful and less controversial because it will provide an opportunity to everyone in society to participate in the process and decide the course of development.

Another important aspect is the nature of the origin of the participation. Barnes et al. (2003) argue that people may participate because they have volunteered to do so or because they have been 'invited, exhorted or coerced'. In the democratic paradigm, participation is a voluntary activity, while in the case of development, participation is a state or NGO-promoted (some would argue 'coerced') activity. Cooke and Kothari (2004) argue that the latter may become tyrannical for participants, as the transferred or implanted methods may not fit into the socio-political culture of participants. What the participants are asked for is also quite important: are they asked for individual inputs, thus uncovering individual preferences, or are they asked as a community or group, which involves deliberating and reaching collective agreements? In the first case, which falls into the development paradigm, it may take a long time to arrive at a decision as to the common good because individual preferences will vary. The second case, which falls into the democratic paradigm, limits this problem by presenting a group preference. As regards whose interest the participants represent, in the democratic paradigm, the participants will deliberate to reach a collective interest for the good of society, while in the development paradigm, the participants will represent the interests of a target group.

The second point of variance is the level of participation. Following

Arnstein's (1969) 'ladder of participation', participation in the democratic paradigm stands on the two upper rungs of 'citizen power' and 'delegated power'. In these two cases, participants have the authority to make decisions. In the case of the development paradigm, participation could mean anything from manipulation to partnership, from nominal membership to co-production. In these cases, the authority to make a final decision lies with someone else; the role of participants is set by the authority. The participants are involved in providing the information that the authority acts upon.

The third point of variance between the two paradigms is the objectives that they seek to achieve. While the democratic paradigm seeks to achieve better decisions or policies and the development of the individual character of the participants, the development paradigm seeks to achieve better project outcomes. The outcomes expected from democratic participation, to follow Pateman (1970), are political efficacy, a sense of cooperation or trust, a democratic character (better citizenship) and commitment to collective decisions. On the other hand, the potential outcomes of participatory development are better design and implementation of development projects and thus better and sustainable outcomes. The development paradigm seeks to achieve efficiency, effectiveness and economy in development. However, both the paradigms seek to gain legitimacy – to decisions in the democratic paradigm and to projects in the development paradigm – through participation.

Although separable, both democratic and development paradigms of participation can coexist in the same way as Aristotle's 'good citizen' and 'good man'. This requires a good 'constitution', an enabling environment. It must be noted that the development paradigm draws its philosophical roots from the political paradigm. So in the presence of certain contextual factors, effective participation can produce both democratic and developmental outcomes. The next chapter deals in detail with the contexts under which democratic participation could be institutionalised in development projects.

In recent years, there seems to have been some convergence between the two

paradigms, leading to the idea of 'participatory citizenship' (see Mohanty and Tondon, 2006). This has been facilitated by two related developments: Firstly, following Sen's (2000) argument, the concept of development has been expanded to include development of human capabilities. In this case, development becomes inseparable from democracy (Dreze and Sen, 2002). Secondly, there has been a shift in focus from target groups to citizens in participatory development, although this has been limited to academic discourse.

However, there is no doubt that participation is a necessity in the modern world, not only for substantial democracy but also for sustainable and equitable development. For the adherents of market-oriented development, participation is alien and utopian. They appear convinced that participation is dangerous because it promotes the organisation of the excluded in order to attain control over resources and institutions. By contrast, the critics of market-oriented development claim that participation is something achievable, and it is the only way to cope with inequalities and redistribute the benefits of development. In this context, an answer to this debate can be obtained from (excluded) people through empirical research.

Participation theories and their normative claims, as discussed in this section, are central to the analysis. Drawing on participatory development theories, the thesis aims to find out how users' participation in management of service affects service delivery system. Does users' participation address existing inefficiencies in the system and contribute to improvement in efficiency and effectiveness? Does the new system make the service providers more accountable and responsive to service users? Though the study focuses on electricity service delivery for analysis, it aims to draw insights for other similar public services. Similarly, drawing on participatory democracy theories, the thesis aims to demonstrate how participation in users' association affects participants' (or users') participation and democratic skills. Another set of indicators has been identified (and discussed in detail in Chapter 4) to assess

outcomes of users' participation in electricity service delivery system.

2.4 Conclusion

Though decentralisation and participation are two different concepts, often used for different objectives and in different context, in recent years, they have been used for public service improvement. Recent researches argue that decentralisation and users' participation in service delivery significantly enhances efficiency and effectiveness of public service delivery system. When implemented for public service improvement, decentralisation and participation can facilitate local responsiveness and encourage accountability. Decentralisation reduces the gap between service providers and users by bringing them closer. Participation empowers the users to hold the service providers accountable. At the same time, both decentralisation and participation have been promoted for the empowering impacts they have for the participants or service users.

Building on these normative claims around decentralisation and participation in general, and around public service delivery, and accounting for the existing inefficiencies in Indian electricity supply system (see chapter 3), I have identified a number of indicators to assess the impacts of decentralisation and users' participation on service delivery. To assess improvements in efficiency in electricity supply, I look at major existing inefficiencies like rampant theft, low end-use efficiency, poor revenue realisation, high technical loss and poor quality of supply. In Chapter 5, I discuss how decentralisation and users' participation have addressed these inefficiencies in conventional centralised electricity delivery and contributed to electricity service improvement. While efficiency gain is necessary, it does not mean effectiveness of the service delivery system. To understand effectiveness of the decentralised and participatory electricity supply system, I look at major loopholes like lack of transparency and high corruption, lack of accountability, poor quality of service and low & unequal access. In chapter 6, I analyse the contributions of decentralisation and users participation to effectiveness of electricity supply

system. At the same time, to understand empowering effects of decentralisation and participation, I have looked at enhancement in human dignity and self-respect, construction of citizen consumers, promotion of leadership, group solidarity and collective action, declining faith in government and increasing political participation. In chapter 7, I discuss these effects of participation in users' association, with empirical evidences; how participation has contributed to political efficacy and civic values of the participants.

Chapter 3

Politics of Electricity Delivery in India

Beyond State and Market

Communism is Soviet power plus the electrification of the entire country.

Eighth All-Russian Congress of Soviets, 1920 (Lenin, 1960: 516)

Brothers and sisters, I want to tell you this. The greatest thing on earth is to have the love of God in your heart, and the next greatest thing is to have electricity in your house.

Farmer giving witness in a rural Tennessee church in the early 1940s (Pence, 1984)

To implement the goal accepted by the international community to halve the proportion of people living on less than US$ 1 per day by 2015, access to affordable energy services is a prerequisite. (UNCSD, 2001)

3.1 Introduction

The three quotes above show the importance given to electrification at different points of the twentieth century and under different regimes. In the first quote, Vladimir Lenin meant that electrification of the countryside was a means to end the division between town and country. It would 'raise the level of culture in the countryside and…overcome, even in the most remote corners of land, backwardness, ignorance, poverty, disease, and barbarism' (Lenin, 1960: 335), and would thus establish communism in the Soviet Union. The second quote, from an American countryman, shows the importance accorded to electricity service by rural people. It should be noted that during the mid-1930s, most of rural America did not have access to electricity, a situation very similar to present day India. The Roosevelt administration, with its social

democratic perspective, established the Rural Electrification Administration (REA) to provide technical support and public funding for rural electrification. Its primary objective was to improve living standards in rural areas, with secondary objectives of food security, military security, and checking migration and separatist movements (Wolman, 2007). These were deemed essential to protect the democratic regime in the country. The third quote represents the view of an international institution, the United Nations Commission on Sustainable Development, which again views electricity service provision as necessary to reduce poverty and thus to improve living standards.

There is no doubt that electricity is a basic necessity in the modern world. It is essential for human development and to improve the living standard of the poor, to ensure a just society, and probably, to protect the political regime. According to Amartya Sen's capability framework (cf.Sen, 1993, Sen, 1997), electricity service can be understood as a commodity or input factor that frames an individual's capability and thus enables his functioning in society. However, it has always been difficult to deliver electricity in geographically large and dispersed countries because of the high cost to serve remote locations and low returns. It becomes more difficult when the real cost of the service is unaffordable for many people, as is the case in India.

Electrification, especially in rural areas, requires state intervention through institution building and some sort of public funding. Different countries have devised different methods for electrification: centralised five-year plans in the USSR; public funding through the REA and cooperative electrification in the United States; and nationalised electrification in the United Kingdom. As a late electrifying country, India has repeatedly made all efforts to draw on the experiences of early electrified countries. As a consequence, over the past six decades, the Indian electricity sector has passed through several phases of development, in line with shifts in the global electricity supply industry.

This chapter partly draws from and builds on my MPhil research on *Political Economy of Public Policy Making in the Indian Electricity Sector* (Swain,

2006). The study analysed the policy process in Indian electricity, with focus on national level and two subnational states (Orissa and Andhra Pradesh), during the period from 1948 to 2003. It aimed to identify the drivers of policy change, key actors and interests in the process, how they control over the process (policy making and implementation), and how policy making in the electricity sector is correlated with overall policy making in the country.

The study concluded that policy making in India is an outcome of interaction between the state, the government and the society. The policies adopted are guided by prevailing economic ideologies, held in India as well as globally. Yet, domestic energy security concerns and developmental aspirations had far more (and direct) influence than the international agencies or external environment. Consequently, policy process in Indian electricity has clearly reflected political and economic shifts in the country. While much of the policy making has taken place at federal level, actual implementation was carried out by the subnational agencies, owing to the concurrent status of electricity. Analysing subnational process in two states, the study found that, undermining economic rationales, electricity has increasingly been used by political parties and politicians to secure public support and appease their constituencies. Over-politicisation of the policy process and rent-seeking in Indian electricity, particularly at local level, has resulted in failure of public electrification over decades and attempts to introduce market in 1990s (Swain, 2006). The finding of the study are summarised in this chapter (in Section 3.2 & 3.3).

In that backdrop, citing the failure of state and market, international development agencies have been proposing a new approach to electricity service governance that seeks to engage the public- actively and directly- in the process. The current research is an attempt to understand whether public engagement in electricity service delivery can address the inefficiencies that state and market institutions could not address. That way, current research will complement my past research by finding out what works better for electricity service delivery. While the past research helped me to identify inefficiencies in

Indian electricity delivery system, current research seeks to find how those inefficiencies can be overcome through public participation and decentralisation. The earlier research was based policy analysis, analysis of political debates and interviews with policy makers and other stakeholders as opposed to the current research that is heavily based on interviews and observations with electricity consumers. That way also both the studies complement each other by providing a holistic picture.

The current chapter aims to critically examine the institution building and the policy processes in the Indian electricity sector. The objective is to identify institutional and policy shifts leading to users' engagement in electricity delivery, their underlying rationale, and their outcomes. It also aims to point out the major inefficiencies in the conventional centralised model of electricity delivery in India, which the decentralised and participatory model is meant to address. Chapter 5 and 6 discuss in detail how these inefficiencies are addressed in the decentralised participatory model of electricity delivery. The chapter is organised as follows. Section 3.2 presents the current state of the electricity supply industry in India as compared to the pre-independence period. Section 3.3 analyses the major policy shifts in the Indian electricity sector. Section 3.4 deals with the electrification programmes that were undertaken and the approach that they followed. In section 3.5, I discuss the new paradigm for extending electricity access. In the conclusion, I provide a summary of the politics of electricity service delivery in India and identify the major inefficiencies of the Indian electricity service delivery mechanism.

3.2 The State of the Electricity Service in India

In the pre-independence period, electricity in India was governed by the Indian Electricity Act 1910. This Act set out the rules by which private firms were granted licences by the state to supply power. At that time, the electricity sector in India was composed of hundreds of private companies and a very few government-owned utilities, located almost exclusively in cities and larger towns and in the industrial regions surrounding them. While most of the generation

business (74 per cent of total generation) was controlled by government, the distribution business (80 per cent) was largely in private hands (GoI, 1948). Government-owned generating stations (primarily coal-based thermal plants and hydroelectric stations) were large, while relatively small private players generated electricity from diesel generators. The majority of these companies were British owned, but there were a few prominent Indian players, notably, the Tata conglomerate, BSES, CESC, and Nixons.

The first legislation in India to regulate the generation, supply and use of electricity came in the form of the Electricity Act of 1887, which provided for the protection of persons and property from injury and risks, attendant to the supply and use of electricity for lighting and other purposes. The Act was repealed and replaced by the Indian Electricity Act 1903. However, following the formulation of this Act, many practical, electro-technical and commercial difficulties came to light during the 1903 to 1909 period. To deal with these difficulties, the Indian Electricity Bill was introduced in the Central Legislature to amend the law relating to the supply and use of electrical energy. The Indian Electricity Bill was passed by the Legislative Council on 18th March 1910 and became the Indian Electricity Act 1910, which came into force with effect from 1st January 1911.[7]

The Indian Electricity Act 1910 was 'an Act to amend the law relating to the supply and use of electrical energy' (GoI, 1910). In addition to dealing with the supply and use of electricity, the Act also set out the rights and obligations of the licensees. The key issues addressed in the Act were licences, regulatory and safety aspects, rules for non-licensees, guidelines for electrical works, and guidelines for the determination of purchase price and charges.

[7] When the Indian Electricity Act 1903 was passed, it was clearly recognised as a somewhat tentative measure, and it was anticipated that amending legislation would be required at an early date. From the experience gained in the practical working of the Act, the Government of India came to the conclusion in 1907 that the time had arrived to undertake this amending legislation.

Administration of the Act was vested in local governments, with whom rested the power to grant licences, but the authority or prior sanction of the Governor-General in Council was required in regard to so many matters[8] that the practical result was a dual administration. The rule-making powers, and the delegation of the powers of the telegraph-authority to licensees, were reserved for the Governor-General in Council. This historical division seems to have influenced the concurrent status[9] of electricity in India.

Between 1910 and 1940, under the guidance of this Act, many generating stations[10] were set up, mostly by provincial governments. While electricity generation was taken care of by provincial governments, most distribution licences went to private companies. From the 1910s to the 1940s, while cities and larger towns were becoming increasingly well electrified, smaller towns and villages were largely untouched by this new technology. The disparity

[8] For example, in the case of cantonments and similar 'places in the occupation of Government for naval or military purposes', the administration of the Act was in the hands of the Governor- General in Council, but these places were situated within larger areas, in respect to which the local government was empowered to grant licences. It required separate, and not necessarily consistent, licences to be granted by the Governor-General in Council and the local government, respectively, to the same licensee for the same purpose, in one and the same place (GoI, 1910).

[9] The Constitution of India has put electricity under the 'concurrent list' of issues for which responsibility is shared between the centre and states. Under entry 38, both Parliament and the state legislatures have been empowered to make laws on the subject of 'electricity'. The constitution has, however, given supremacy to central legislation, meaning thereby that if there is a direct conflict or inconsistency between a central Act and the provisions of state legislation, then the law made by Parliament shall prevail and the inconsistent provisions of the state legislation shall be void (GoI, 2003a).

[10] Khopoli, Maharashtra (set up by the Tatas to supply Bombay), Sivasamundram, Mysore (power to Kolar gold fields), Mettur dam, and Madras (power to Madras city) are some prominent examples.

between urban and rural areas was partly a consequence of the low revenue potential of rural areas and partly because of the urban-centric development strategy of the British government in India.

At the time of independence, India inherited an electricity sector with a total installed capacity of 1,363 megawatts (MW) and only 1,500 villages (0.25 per cent of villages in India) electrified (PEG, 2004). Per capita electricity consumption in the country was 14 units (MoP, 2005), while the corresponding figures were 806 for the United Kingdom, 1540 for the United States, and 300 for the USSR (GoI, 1948). Of the very little electricity produced, 44 per cent of the entire electricity supply and 46 per cent of the generation was confined to three big urban areas, namely, Calcutta, Bombay and Madras. As one of the members of the Constituent Assembly put it, the entire country was "a virgin field for electrification" (GoI, 1948).

Immediately after independence, electricity provisioning became a major concern for development in India. In keeping with global thinking at the time on the primacy of the state in development and drawing on the experience of state-led electrification in the USSR, America and the United Kingdom, India began public sector- led electrification. The objective was to power industrialisation, deliver electricity to the common people and address regional disparities in access to electricity services.

Over the post-independence period, the total installed capacity in the country has grown to 169,749 MW, the number of electrified villages has increased to 531,425 (89.5 per cent) and per capita electricity consumption has risen to 733.5 units (CEA, 2010). However, the state of India's electricity sector is very poor compared with many other countries. Although most villages are electrified, more than one-third of the population still do not have access to the service. Despite repeated efforts, 56.6 per cent of rural households and 12 per cent of urban households do not have access to electricity (Bhattacharyya, 2006). There is a wide disparity among the states: while seven states claim to have achieved 100 per cent village

electrification, six states are below 60 per cent; only three states have 85 per cent household electrification, while five states are still below 20 per cent (CEA 2010). Southern states are doing better than highly populated states in northern and central India. While states like Kerala, Tamil Nadu, Haryana and Punjab completed electrification of all villages before 1980, the electrification programme in states like Orissa, Uttar Pradesh, West Bengal, Bihar and Assam stagnated in the 1990s before being completed (Andreas, 2006: 3).

As per the Indian constitution, the electricity sector is the joint responsibility of the central and state governments. A set of institutions (mostly public, with a few private utilities) govern the sector in India. Until 2003, the sector was governed by three principal Acts, namely, the Indian Electricity Act 1910, the Electricity (Supply) Act 1948, and the Electricity Regulatory Commissions Act 1998. The Electricity Act 2003 has repealed all the previous Acts and established a new era of restructured governance in which all the utilities are corporatised and freed from government control.

The Indian electricity sector has four different categories of consumers – industrial, commercial, domestic, and agricultural, with the industrial consumers using the largest amount of power. Among these consumers, the industrial and agricultural consumers form the strongest lobby in the policy-making process, while domestic and commercial consumers are quite fragmented. However, domestic and agricultural consumers' interest is given primacy in electrical developments, as they constitute the largest vote bank. Over time, with increased demand for the service, electricity has become an electoral commodity.[11] In contrast to international practices[12] and the economics of

[11] During the past couple of decades, promises of access to electricity at an artificially low price or free of cost for some, have attained an important place in political parties' manifestos; elections are being won and lost on the basis of electricity provision. In Andhra Pradesh's State Assembly election in 2004, the Congress party promised to provide free power to farmers, and since being elected, it has kept its promise. Pachauri (2004) argues that if this policy was to be pursued to the same level

distribution costs, industrial consumers in India pay the highest tariff, followed by commercial consumers. Agricultural consumers pay the lowest tariff, and domestic consumers pay a little more. While the tariffs for domestic and agricultural consumers are far below the cost to serve, the high price paid by industrial and commercial consumers provides a cross-subsidy to fill the gap. This phenomenon of cross-subsidisation emerged much later in the post-independence period. I will discuss this later in this chapter.[13]

From the beginning, the sector has faced a challenge in balancing its social and economic obligations. The sector has to provide electricity for industrial development while providing electricity to the masses in a fissiparous and diverse country like India. Until the late 1960s, the balance was tilted in favour of industries, as power developments during the period were taking place in industrial regions and the industrial tariffs were set significantly lower than for other consumers. By the late 1960s, with the emergence of competitive populism, the balance shifted in favour of social obligation – providing electricity for domestic and agricultural purposes. However, since the 1990s, the sector has

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by some other states such as Punjab, Madhya Pradesh, Maharashtra, Karnataka, Haryana, Uttar Pradesh and Gujarat, then an additional burden of around Rs 45 billion would be imposed on state governments. Currently, for these selected states, agricultural tariff-related losses are in the order of Rs 140 billion. A further increase of Rs 45 billion would seriously impair the ability of these utilities to provide power in the future to those very sections of consumers that they are pandering to today (Pachauri, 2004).

[12] Gilbert et al. (1996) studying the international experience in the electricity sector claim that in most countries, the financial burden of investment in electricity is typically carried by the commercial class. While industrial rates are kept relatively close to marginal costs, residential customers are provided some subsidy. This leaves the financial burden with commercial customers (p. 15).

[13] In the pre-independence period, domestic consumers paid a high tariff, while industrial and agricultural consumers paid less.

been attempting to restore the balance in favour of industries while protecting the interests of domestic and agricultural consumers. This has left the sector in a difficult position.

The sector is in dire straits, plagued with chronic inefficiencies. While more than one-third of the population is still not connected, the country is faced with a severe power crisis. The gap between demand and supply hovers around 10 per cent, but losses are around 35 per cent. Consumers have to face power cuts ranging from four hours to 18 hours a day during peak summer and winter months. The utilities are in financial crisis due to poor revenue collection and heavy subsidies. It may be practically and politically impossible to rationalise tariffs, which would require a 400 per cent hike in domestic and agricultural tariffs, without addressing loss and other problems. Corruption is so high that Transparency International claims that in 2005, Indians paid $480 million in bribes to receive connections (as cited in Sengupta, 2007). This partly negates the claim that domestic and agricultural consumers are getting cheap/free power. Heavy cross-subsidisation from industrial consumers has forced them to move to captive power generation, leaving the utilities in further financial straits. Restructuring has hardly improved governance in the sector. Mismanagement, lack of transparency and accountability, and corruption are the major problems that plague the sector's performance. While much of the policy debate so far has been focused on capacity addition and restructuring, hardly any attention has been paid to end-use efficiency. As it is rightly said that 'every unit of electricity saved is equivalent to producing two extra units', end-use efficiency could save much of the electricity consumed.

3.3 Politics of the Policy Shifts in Indian Electricity

In this section, I analyse the policy process in the Indian electricity sector to identify the major policy and institutional shifts, why they occurred and how they have led to the current crisis in the sector. During the past six decades, the sector has passed through four phases of major policy shifts: the first, following independence in 1947, led to the consolidation of public power in the sector;

the second, from the late 1960s through the 1980s, was characterised by political interference and led to the emergence of a populist paradox in the sector; the third, beginning in the early 1990s, laid the groundwork for the shift to market orientation by opening up the sector to private players and structural reforms; and the fourth phase began with the enactment of the Electricity Act 2003, marking a new beginning and seeking to strike a balance between the economic and social objectives.

At the time of independence, the existing electricity market in India was neither capable of lighting the country nor powering its industrial development. In response to the situation, the Constituent Assembly of India[14] set out to create public institutions that would expand electricity generation and access in

[14] The Constituent Assembly of India was the apex legislative body of India at the time of independence, which tried to maximise the inclusion of various interests in the key legislations for independent India. However, the Constituent Assembly was dominated by one party in a country dominated by one party. As Austin (2003) has put it, "the Assembly was the Congress and the Congress was India". Although the Congress Party ensured that members from all ethnic communities were represented in the Assembly, there were no criteria for representing members from different classes and occupational communities. While some agree that the Constituent Assembly was representative of all kinds of opinion (Austin, 2003), some challenge this. The latter argue that the Congress was an organisation dominated by a 'social elite' group and it was not notably democratic in its own working (Corbridge and Harriss, 2004). In regard to the Electricity (Supply) Act 1948, although the Constituent Assembly represented all kinds of public opinion, the opinion of farmers was represented less than other groups. The industrial stakeholders were consulted at the Simla conference during the drafting of the Bill, but there was no such consultation with agricultural stakeholders. Some members of the Assembly emphasised the necessity to supply electricity to farmers, while others emphasised the need for a subsidised tariff for agricultural consumption. But there was no special representation of farmers, which has resulted in the lack of innovative ideas for efficient electricity consumption in the agricultural sector (Swain, 2006).

India. Along with this, they introduced the Electricity (supply) Act 1948, which guided these public institutions. The Electricity (Supply) Bill 1948 was originally prepared in 1945 by the then Labour Department of the Government of India, and from then until 1948, it was under continuous revision by different committees. Important recommendations came from the Power and Fuel Committee of the National Planning Committee. Before presentation in the Constituent Assembly, a number of important amendments were made to the draft Bill by the Legislative Drafting Committee. In August 1948, the Bill was debated in the Assembly and was passed with certain amendments. The stated objective of the Act was to orient the sector to "provide for rationalisation of the production and supply of electricity, and generally for taking measures conducive to [electrical development[15]]." The Act established two sets of public institutions, the Central Electricity Authority (CEA) at the central level and State Electricity Boards (SEBs) at the state level, and these became the nodal agencies in the sector.

Two important issues that were raised and discussed in the Constituent Assembly were the proposed nationalisation of the electricity sector and the autonomy of the proposed State Electricity Boards. While there were some members who supported nationalisation of the sector, others opposed it on various grounds. The supporters of nationalisation argued that a 'uniform system of administration' in the sector was necessary in order to solve the problem of regional disparity in access to electricity. On the other hand, some members argued for autonomous SEBs, while others favoured the establishment of an electricity department attached to the Energy Ministry in the state governments. Supporters of independent SEBs anticipated the problems of increasing interference by elected leaders, presciently envisioning a time when electricity would come to be a tool wielded to fashion and sustain political constituencies. In many ways, the discussion around these two issues anticipated the contemporary debates around the crisis in the Indian electricity

[15] Substituted by A.O. 1950, for "the electrical development of the provinces of India".

sector. Ultimately, the Constituent Assembly agreed on a nationalised electricity sector and independent SEBs (Swain, 2006). However, SEBs were structured through state government loans and operated as extensions of the states' energy ministries. As a consequence, their autonomy was undermined, and they remained 'indebted in perpetuity' to the state governments (Dubash and Rajan, 2001). Successive amendments to the Act further eroded the SEBs' autonomy and opened the door for electoral considerations by imposing greater political oversight of human resource developments and tariff setting (Kale, 2004). However, most of the newly created SEBs were doing well. Although the electrification rate was not as high as it became in the next phase, the SEBs were financially viable.

From the late 1960s to the 1980s, the SEBs' autonomy was further eroded, increasing the scope for political interference.[16] Beginning from the late 1960s, political interference in the sector intensified, and as a consequence of the developments in Indian politics, the electricity service was increasingly used for electoral considerations. The 1967 elections marked the beginning of the reconfiguration of political forces in India; Congress's hegemony was challenged in parts of India. The period experienced the emergence and rise of regional parties with a strong base among the peasantry, who demanded subsidised agricultural inputs including electricity for irrigation (Swain, 2006). Subsidised electricity for farmers had broad appeal as it seemed to be achieving food security while increasing the income of farmers, who could thereby be

[16] Political interference in the sector was a two-part process: first, through 'policy directives' from the government that are allowed under Section 78A of the 1948 Act; second, through 'executive instructions' that work through an informal nexus between the politicians and the employees of SEBs (Ruet, 2005). Executive instructions, mostly targeted at implementation, were the real menace and often went against the policy directives from the same people in government. While the policy directive called for village electrification to follow the criterion of population (1,000 or more), politicians instructed that their constituencies were electrified first, irrespective of population (Swain, 2006).

organised into large vote banks (Dubash and Rajan, 2001). All political parties used electricity to lure voters by artificially lowering the tariff for agricultural and domestic consumers.

The failure of the SEBs can be attributed to two developments during the period: first, subsidisation of agricultural consumption[17]; second, unplanned (politically induced) electrification and irrational tariff setting. The creation of the Rural Electrification Corporation (REC) in 1969, which provided soft loans guaranteed by state governments, reduced funding constraints. The criteria for selecting the villages for electrification were more political and populist than economic. While rural electrification increased domestic and agricultural consumption, the subsidisation of agricultural consumption and stagnating domestic tariffs led to a wide gap between cost and revenue. The stretching of lines to remote rural areas, in many cases without enough consumers, resulted in increased transmission losses and increased the scope for theft. In addition, theft by non-consumers enticed consumers to tamper with meters and abstain from payment. However, the SEBs did not report losses until the early 1980s (Swain, 2006). Later, when the SEBs started reporting transmission and distribution (T&D) losses, it is claimed that most of the loss was written off under the category of agricultural consumption, as agricultural metering had by then been removed (World Bank, 2001).

Taken together, the subsidised agricultural supply, unplanned electrification, increased power theft and losses, and irrational tariffs led to a

[17] The structure of agricultural subsidy in Indian electricity is not uniform, owing to the concurrent status of electricity. Most states follow a flat-rate tariff based on the capacity of the pumpset rather than consumption, while some provide free electricity to farmers. In a very few cases, farmers are metered, although the tariff is artificially lowered. The states have pursued a non-discriminatory electricity subsidy policy that allows the rich to gain more.

wide gap between cost and revenue.[18] By the late 1980s, the SEBs were going through a severe crisis of finance, capacity and management. Furthermore, consumers were highly dissatisfied with the poor quality of the service: domestic consumers with frequent load-shedding, agricultural consumers with limited hours of supply, and industrial consumers with the high tariff. There emerged a consensus that the problem was due to a lack of sufficient generation capacity in India, ignoring the high T&D losses and governance problems. The government therefore resolved to abandon the public monopoly system and set in motion fundamental changes in the sector, in line with global thinking at the time.

By the beginning of the 1990s, there was a broad consensus that the Indian power sector was in dire straits, and major policy changes were required to change its management structures. Given the broad consensus on the problem, policy makers could have simply prepared a new course of action with the existing institutions. This would have been possible through management reform in the sector, an approach that had a group of supporters in the policy arena. According to Dubash and Rajan (2001), re-regulation of the sector to reassert the independence of SEBs from their political masters and devising effective accountability mechanisms to ensure this independence would have produced a much better result.

However, in the face of the severe crisis in the sector, the central government announced in 1991 that it would encourage private investment in the sector. This development marked the beginning of the third phase, i.e. electricity reforms. The reforms in the Indian electricity sector took place in two phases: the first phase introduced private players into generation; the second phase initiated structural reforms in the SEBs, privatisation of distribution in some cases, and established independent regulators at both the centre and

[18] The state governments provided subventions to meet the gap and encouraged the SEBs to overcharge industrial and commercial consumers. This led to the emergence of cross-subsidy (Swain, 2006).

state level.

Reforms in the electricity sector began in October 1991, when the Power Ministry of the Government of India began to publish a series of notifications that sought to encourage the entry of privately owned generating companies into the electricity sector. Some of these government orders were later enacted in Parliament to become the Electricity Laws (Amendment) Act 1991. It radically revised the existing legislation by permitting private entities to establish, operate and maintain generating stations of virtually any size and to enter into long-term power purchase agreement with SEBs. This Act, by amending all previous Acts, made provision for the following: allowing the private sector to set up local gas or liquid fuel-based thermal projects and hydro projects and wind or solar projects of any size; allowing foreign investors up to 100 per cent ownership of power projects subject to government approval; setting a new price structure; making new power projects eligible for a five-year tax holiday; and reducing duties on the import of equipment for power projects considerably (GoI, 1991).

To attract private investors, Independent Power Producers (IPPs) were offered a guaranteed return and incentives. To further hasten implementation, the central government subsequently declared eight of the most promising projects 'fast track' projects with expedited clearance procedures. Since the buyer SEBs were not financially sound and the IPPs needed to secure a revenue stream, the IPPs were provided government counter-guarantees and escrow accounts against non-payment of dues by SEBs. These incentives had the desired effect. By mid-1995, project developers and financiers had put forward 189 project offers totalling over U.S. $100 billion, which would have increased capacity by 75 gigawatts.

The government initiative to introduce private players in electricity generation was welcomed by all. By this time, the Indian business class was well developed. Indian capitalists could foresee an opportunity to enter the electricity business with the entry of private capital in the sector. Middle-class

consumer groups, for whom electricity is a basic necessity, welcomed the promise of efficient power delivery. The industrialists expected a reliable power supply. Although the masses were generally unaware of the developments, the few who were welcomed the move in anticipation of better supply. There was hardly any opposition to the policy. The only interest that could have opposed the policies was the sector's labour unions. Although the public utilities constitute one of India's largest employers, labour unions in the sector had not yet organised effectively to oppose privatisation (Kale, 2004).

Within a few years of its implementation, however, the IPP policy turned out to be a nightmare. The World Bank played a 'curious dual role' in the IPP policy. While welcoming private electricity initiatives in principle, the World Bank delivered a strong critique of the highest profile IPP, the Enron project, in a confidential memo to the Government of India. The memo stated that the project was "not economically viable, and thus could not be financed by the Bank," but urged the government to "explore ways to sustain the interest of the project sponsors" (as cited in Dubash and Rajan, 2001: 3374).

The IPP policy had several diverse impacts, well-illustrated by the infamous Enron case. Firstly, it weakened the key institutions responsible for long-term planning and technical and economic clearances. The IPP policy created an uneven playing field in favour of private players, particularly foreign investors. Secondly, its concentrated focus on capacity expansion excluded consideration of a more 'rational cost-based planning' approach to electrical development. Thirdly, the conception and implementation of the IPP policy offered opportunities for graft and malfeasance. Projects were selected through memoranda of understanding (MoUs) between state governments and private players rather than via competitive bidding, and Power Purchase Agreements (PPAs) were kept secret even though they contained 'take-or-pay' contracts involving public financial obligations for years to come (Dubash and Rajan, 2001). Fourthly, results from PPAs have shown that the high guarantees offered to the private generators negatively affected generation in terms of

reduced utilisation of both the existing and new public capacity. Finally, another major impact of the IPP policy could be in terms of significant increase in expected tariffs (Balachandra, 2006).

Over a period of five years, the government learned lessons from the practical implementation of the IPP policy and announced several changes in policy. Firstly, counter guarantees were stopped after the first few projects. Secondly, the MoU approach was abandoned and replaced by compulsory competitive bidding for PPAs. Thirdly, price-based bidding was considered instead of cost-based bidding. Finally, the 'two-part tariff' was re-examined (Ranganathan, 1996).

The IPP programme had significantly underperformed. By the mid-1990s, it was clear that a focus on private investment in generation was an insufficient and possibly counterproductive policy. Although not all PPAs proved controversial or ended in failure like Enron, the Enron case clearly demonstrated the shortcomings of the idea that IPPs were the solution to the crisis in the Indian electricity sector. As long as private generating firms had to sell their power to insolvent SEBs, the financial risks would remain intolerably high.

The second phase of reform thus sought to address the problem of political interference in the SEBs, which kept subsidies too high and collections too low for the SEBs to pay their bills. A two-layered solution that incorporated restructuring and the introduction of a regulatory framework was proposed in order to improve the performance and finances of SEBs (Carstairs and Ehrhardt, 1995). The purpose of unbundling the monolithic SEBs and privatising the resultant units was to improve management in the sector and to introduce a commercial culture. The main purpose of establishing independent regulatory bodies was to 'depoliticise' the sector. These policy reforms were intended to alter the relationship between public utilities, consumers, and state governments by delinking utilities from the governments.

As it has been argued, these reforms quite clearly drew upon the World Bank policies on private participation in the electricity sector, which were

rewritten in 1993. Its global reach and cheap capital made the Bank the primary vehicle for propagating the new privatisation paradigm (Kale, 2004). In response to these ideas, various states began experimenting with reforms after the mid-1990s. While most of the states have unbundled the sector, only two states (viz. Orissa and Delhi) have privatised the distribution business. In large measure, these differences across Indian states reflect the variations in the balance of power among different social and economic actors in the state.

While the early reformers like Orissa and Delhi have gone a long way towards completing the process of privatising their distribution companies, the late reformers have halted the process mid-way.[19] This is due to the emergence of opposition to the reforms, particularly opposition to privatisation. When Orissa began reforms and privatised the distribution companies, there was hardly any awareness about the reform process. By the time other states started the process, the Orissa model had started to bear fruit, and its result was not positive. This led to strong opposition to privatisation in other states.

It should be stressed that the opposition was specifically against the privatisation process, not against other reform measures. This was because consumers were suspicious that privatisation would result in tariff hikes. Farmers, who benefited from artificially low tariffs, were more engaged and vocal in the opposition to the privatisation process. Civil society organisations played an active role in the opposition to privatisation. Many organisations focused on the social and economic impacts of privatisation and joined together to gain public support for their cause. The presence of these organisations generated awareness among the masses about the reforms, particularly about their negative implications, and in so doing, they bridged the gap between 'elite politics' and 'mass politics' in the power sector by involving the masses in the

[19] It should be noted that almost all states have unbundled their SEBs according to the mandatory provision of the Electricity Act 2003. However, none of them has privatised the distribution segment nor have any plans to do so.

process.

This account suggests that the presence or absence of competent and organised consumer groups is a key variable in determining the success of electricity reforms. Nevertheless, the reform measures initiated at state level were doomed to failure from the outset. Although the states attempted to focus on the core problems of distribution and losses, this resulted in far from satisfactory outcomes, largely because the states' attempts were characterised by political hesitancy. Although all state governments agreed that there was a need to reform the sector, they placed limitations on reforms in areas that would cost them politically.

As part of the reform strategy, the central government passed the Electricity Regulatory Commissions Act in 1998, which made provisions for the establishment of State Electricity Regulatory Commissions (SERCs) in each state and a Central Electricity Regulatory Commission (CERC) at the centre. The differences in the legal frameworks governing the various SERCs are minimal, but their operations vary from state to state, in some cases including generation licensing and tariff setting for particular categories.[20]

The main objective of the regulatory bodies was to free the sector from governmental control. However, the independence of these regulatory bodies was questioned from the very beginning. Their independent status is challenged by the fact that the final selection of the regulators is carried out by state governments and the regulators are financially dependent on the governments. In some cases, the regulatory bodies are faced with a lack of adequate finance and human resources (Swain, 2006). Nevertheless, the regulatory bodies have

[20] Some observers complain about a nexus between the regulators and the government. As the government conducts the final selection and the regulators are not financially independent enough to manage their business, they are inclined towards the government's line. Another reason mentioned by experts is that the regulators are heavily drawn from the bureaucracy, and having worked so long for the government, the regulators are obliged to the government, and their thinking is in line with it.

proved successful in providing a public space in which to debate issues relevant to the sector, and stakeholder participation has increased over time. Further strengthening of the regulatory regime may bear positive results.

In response to the sluggish pace of reform at state level, the Government of India passed the Electricity Act 2003, following two years of debate among policy makers. The passing of the Act marked the beginning of the fourth phase in the Indian electricity sector. In contrast to the World Bank-led state reforms, the new Act represented the internalisation of the new global ideology of electricity at the central government level (Kale, 2004). The new Act replaced all the existing Acts governing the sector and prepared the ground for fundamental restructuring of the sector.

The Ministry of Power submitted a draft of the Electricity Bill to the Parliamentary Standing Committee on Energy in August 2001; the Committee debated the Bill for 15 months. A number of changes were suggested in order to strengthen competition within electricity supply. For example, the revised legislation stipulated a firm timetable for the implementation of open access. After being passed by the Committee, with notes of dissent from the communist parties, the Bill returned to the Ministry of Power in December 2002. The Ministry accepted only some of the Parliamentary Committee's suggested changes. Notably, the timetable for the introduction of open access was again omitted in the Bill. The new version of the Bill was passed by the Indian Parliament on 25th May 2003. In contrast to the debate on the 1948 Act five decades earlier, the debate in the lower house was brief – just over one hour – and sparsely attended (Swain, 2006).

The Act made several new provisions in order to strike a balance between the economic and social objectives of the sector. Under the Act, any generating company can set up a power station without obtaining clearance from the CEA. Only hydroelectric stations are required to obtain CEA clearance. It permits the setting up of captive generating plants and dedicated transmission lines. It further gives the generator the right of 'open access' to the destination

of its user. It creates the possibility of large industrial consumers switching over to captive generators located anywhere in the country, which would lead the distribution utilities into accelerated bankruptcy. In cases where an industrial consumer opts to purchase power from any generator through 'open access', he is required to pay a 'subsidy surcharge'. However, in the case of captive generators, there is no provision to pay a subsidy surcharge. In other words, the captive generators are given the freedom to use the state utility transmission system to deprive the state utility of its high-revenue consumers as the Act makes it obligatory to provide 'non-discriminatory open access'.

The Act provides the legal framework for unbundling of SEBs and privatisation of resulting units. In that case, the SEBs will be deemed a state transmission utility and a licensee. Clearly, Section 44 has been added as a result of experiences from the Orissa cyclone and removes the onus to restore the power supply from the distribution licence holder. Under this section, once the power supply is disrupted due to a cyclone, flood, storm, etc., the licensee is given the freedom not to restore the power supply. This section is drafted to protect the licensee while totally ignoring the consumers whose power supply is disrupted. The Act provides for the formation of an appellate Tribunal composed of a chairman and three members. The Act allows for multiple licensing in distribution and mandatory metering of electricity supplies. Another important provision of the Act concerns adoption of multi-year tariff principles. The Act permits standalone systems for generation and distribution in rural and remote areas. It also makes provision for decentralised management of distribution through Panchayats, users associations, cooperatives or franchises in rural areas (GoI, 2003c).

Critics of the Act argue that its focus on private participation and open access in the sector creates a condition in which electricity is dealt with as a commodity rather than as a social good that the state is obliged to provide to its citizens. Many argue that the Act will ultimately create a situation like that which existed in the pre-independence period and that it undermines the

objectives set by the Constituent Assembly of India and the objective for which the SEBs were created. While the Act has been welcomed by the business community, it has been opposed by some intellectuals and civil society organisations for its bias towards industrial consumers. By removing clearances, it makes it easier for the business class to set up generation businesses in India. Those states that have higher numbers of industrial consumers are pressing forward with the introduction of the core provisions of competition, while the others are moving more slowly in this direction.

The 2003 Act reflects, to a certain extent, professionalism in decision making. The Act was initially drafted by a group of professionals and included a number of provisions to make the sector commercially active and to address the sector's failings. The Act mainly focused on introducing competition in the sector and providing a choice to those consumers who are able to pay regularly. As open competition is not possible in the Indian electricity sector, the 'open access' provision will facilitate only industrial consumers, not residential consumers. Although the Act was drafted by professionals in the sector, it has been manipulated, and the final version adopted by the government is the result of the ample opportunity given to policy makers to make additions and deletions to the original draft. Some of the professionally formulated strict provisions in the Bill were removed to make the Act politically acceptable to state governments. The strict rules on introducing competition in the sector have been moderated. For example, an important issue, the timetable for implementation of open access, has been deleted so as to provide states with the choice of implementing it promptly or slowly. Furthermore, in comparison to the Electricity Regulatory Commissions Act, the new Act makes the regulators weaker by putting many of the controls over the regulators in the hands of government.

Implementation of the Act has been very slow in Indian states. As the Act provided a specific timetable for unbundling, almost all states have unbundled their electricity sectors and created a transmission corporation. However,

critical provisions like 'open access' have scarcely been implemented. Recently, a number of states have started debating the issue of open access, but, as happened at the time of the creation of the SEBs, it may take years to implement these provisions and introduce competition in the sector. The provision regarding multi-year tariffs is yet to be implemented at state level, although a few states have begun the process. Another provision of the Act is the establishment of systems for distributed decentralised generation and decentralised generation. The central government is undertaking initiatives to implement these provisions at state level, and many states have started working to this end. Taking into account the failure to promote rural electrification during the reforms period, the new Act emphasised rural electrification. To make the rural electrification programmes commercially viable, the Act has made the above provisions.

The Act no doubt represents a concerted effort to address the core issues of the distribution sector and its management, subsidies and metering problems. It also makes efforts to address broader public concerns such as rural electrification and consumer protection. The Act if properly implemented is expected to bring about revolutionary changes in the Indian power sector. It is also expected that the Act will provide the much-needed environment for ensuring huge investments in the sector. Large consumers might benefit in the new era, but low-tension consumers will lose in the short term as the Act prioritises the phasing out of cross-subsidies. The practical implications of the Act are yet to emerge, but the Act's core provisions, such as open access, phasing out of cross-subsidies and the fiscal burden on states, have introduced political tensions.

Though neo-liberal reforms in electricity supply industry have been really sluggish or abandoned throughout India, Orissa and Delhi have successfully implemented all the phases of electricity restructuring and privatisation.

Why Orissa and Delhi were able to implement restructuring policies, while other could not? It is often cited that electricity restructuring in India is

driven by the World Bank through its lending policies. It is partly true; the World Bank certainly provided an impetus through its global restructuring programme. But the level of restructuring across states varied according to the local political and economic context. A major driving factor was the size of agricultural consumers. States with higher agricultural consumers could not proceed much on restructuring, which would have meant immediate revise (raising) of tariffs.[21] However, both Orissa and Delhi do not have much agricultural demand and are free from such political anomalies. Absence farmers lobby opposing privatisation of electricity utilities helped both the states. At the same time, then political leadership and government in both the states were somewhat favourable to neoliberal policies and open to experiments in public service delivery. It is also perceived that Orissa was compelled to be the first taker of restructuring policy as it was in desperate need for financial support for electricity sector. It can be traced to the fact that a World Bank funded hydro project in the state was stalled in the early 1990s owing to rehabilitation issues. It is claimed that the bank in conjunction with the state government converted the loan into a reform-linked one to meet the financial needs for completing the project (Mahalingam, 2002).

However, the privatisation did not produce much result; the new private owners of utilities were struggling to recover their cost.[22] Private utilities were in desperate search for innovative management tools to improve revenue generation. At that point of time, a local team of management consultants came

[21] Agricultural electricity pricing has been a major deciding factor of elections in agriculture dependent states like Andhra Pradesh, Maharashtra, Karnataka, Punjab, Haryana and Uttar Pradesh (Swain, 2006)). Farmers constitute such a strong vote bank that elections are won or lost in these states on basis of electricity pricing for agricultural consumers.

[22] Financial strains were so high that AES Corporation, USA-based multinational power company, abandoned ownership of central electric utility in Orissa without any prior notice.

up with the micro-privatisation concept, which was adopted by one of utilities on an experiment basis. Here again strong leadership of the utility- led by Mr R V Sahi- was the key driving factor. After a year of successful experimentation in across 100 villages, the model was backed by DFID and extended to other utilities in the state.

The micro-privatisation model sought to further decentralise electricity supply by introducing micro-entrepreneurs as local electricity supply franchisee and making them accountable to village electricity committees. When Mr Sahi left the utility, the model was abandoned abruptly, even though it seemed to have produced positive outcomes. However, when appointed as federal Secretary of Power, Mr Sahi attempted to introduce the model at national level through the *Rajiv Gandhi Grameen Vidyutikaran Yojana* (discussed later in the chapter).

3.4 Rural Electrification Programmes: Biased Design, Slow Implementation, Poor Outcome

Immediately after independence, India chose to go for a nationalised electricity sector with shared responsibilities between the national government and sub-national governments. The purpose was to avoid regional disparity in electrification and meet the energy demand for industrial development. However, the nationalised electricity sector has failed to meet these objectives, even after six decades. A mixed presence of public and private agencies could perhaps have produced better result. While the private agencies would have electrified the economically profitable consumers in towns and cities and the industrial consumers, the public agencies could have focused on extending the supply to economically less attractive rural consumers. Putting the electrification of a virtually unelectrified country of India's size under government responsibility has partly delayed the process of electrification.[23] Yet, the

[23] Countries like England (source of inspiration for India) nationalised their electricity sector only when most of the country (more than 90 per cent) was electrified.

national government has made several efforts to electrify the country. In this section, I discuss various schemes implemented and approaches followed during different phases of development. Rural electrification comprises different aspects including electrification for irrigation and commercial activities in rural areas. However, the study is focused on electrification of villages and rural households for domestic use.

During the first phase, rural electrification did not receive due importance in India. It was considered a by-product of conventional electrical development; villages were expected to be connected in the process of connecting urban areas, which undermined the social objective set by the 1948 Act. Whatever little emphasis was placed on rural electrification, it was on supplying electricity for irrigation as opposed to household electrification.[24] The objective was to supply electricity for productive use, while more developmental and social benefits could have been accrued by emphasising village and household electrification. Thus, villages and households were electrified only when it was easy and inexpensive to do so.

During the second phase, with the establishment of the REC, the situation changed. More funds were made available to electrify rural areas

[24] The bias towards irrigation centric rural electrification was protected by and reflected in the definition of rural electrification – 'A village should be classified as electrified if electricity is being used within its revenue area for any purpose whatsoever.' In 1997, the definition was modified to emphasise the use of electricity in village habitations – 'A village will be deemed to be electrified if the electricity is used in the inhabited locality, within the revenue boundary of the village, for any purpose whatsoever.' In 2004, the definition became more encompassing and specific – 'A village would be declared electrified if: (i) Basic infrastructure such as distribution transfer and distribution lines are provided in the inhabited locality as well as the dalit basti/hamlet where it exists; (ii) Electricity is provided to public places like schools, panchayat offices, health centres, dispensaries, community centres etc.; and (iii) The number of households electrified should be at least 10 % of the total number of households in the village' (MoP, 2005).

resulting in massive electrification. The *Minimum Needs Programme* (MNP) was launched during the fifth five-year plan in 1974, which provided 100 per cent loans for last mile connectivity. It targeted states with less than 65 per cent rural electrification and drew resources from the central plan assistance. The scheme continued for a long period, but discontinued in 2004-05 due to lack of response from the states towards end. However, the electrification that took place during the period was unplanned and politically induced (refer to the second phase of policy shifts, which promoted populism in electricity delivery). To obtain REC loans as well as loans under the MNP, the SEBs, under the guidance of state governments, connected as many villages as they could, with increases in the figures for village electrification being taken as a sign of achievement. As mentioned earlier, if any criterion was followed, it was political (my constituency first!), and the villages were connected regardless of the level of demand at the point of delivery.[25] Although there was massive electrification during this period, the focus was on the village, not the household. Towards the end of the phase in 1988-89, the *Kutir Jyoti Yojana* (Lighting Hut Scheme) was launched to provide single point light connections to all Below Poverty Line (BPL) households. The scheme provided 100 per cent grants for internal wiring and service connection. To date, 5.8 million households have benefited from it, at a cost of Rs 4.5 billion.

During the third phase, there was a shift in focus towards the economic objective. The 1990s marked a decade of inattention to rural electrification. Within the process of reforms aimed at improving economy and efficiency, rural electrification was probably considered a non-economic and efficiency-hampering business. Furthermore, based on the old definition of rural electrification, the number of villages already adjudged to have been electrified

[25] Electricity as a monetised good will be demanded when people perceive monetary benefit from its use. However, there was no such awareness among the people, and providers did nothing to inform the people about the economic/monetary benefits of electricity use.

was high. This provided little incentive for further electrification; as a result, only 40,000 villages were electrified in the 1990s as against 220,000 in the 1980s.

The next phase has seen a gradual rise in emphasis on rural electrification culminating in a national target for universal electrification by 2012. During the Tenth Five Year Plan (2002-2007), several schemes were launched to accelerate rural electrification with the objective of achieving universal electrification. *Pradhan Mantri Gramodaya Yojana* (Prime Minister Village Upliftment Scheme) was a scheme for rural development, implemented by the Planning Commission. Though the scheme was launched in 2000-2001, rural electrification was integrated with the scheme in the year 2001-02. The scheme provided financial assistance (in the form of additional central allocation) for six basic services, including electricity, to states on a 90 per cent loan and 10 per cent grant basis, and states were granted the discretion to reallocate the funds among the basic services. Some states have taken up the opportunity to accelerate rural electrification. However, the scheme was discontinued in 2005 due to implementation problems, particularly non-utilisation of funds. In 2002, the *Accelerated Rural Electrification Programme* was introduced which provided an interest subsidy of four per cent to states for rural electrification. The scheme was open to the states and electricity utilities on loans availed from approved financial institutions. In 2004, the scheme was merged with the *Kutir Jyoti Yojana* to introduce a new scheme called *Accelerated Electrification of One Lakh* [100,000] *Villages and One Crore* [10 million] *Households programme*. The new programme provided funds on a 40 per cent grant and 60 per cent soft loan basis for rural electrification-related projects.

In 2002, *Rural Electricity Supply Technology* (REST) *Mission* was launched with the objective to accelerate electrification of all villages and households progressively by 2012 through local renewable energy sources and decentralised technologies, along with conventional grid connection. The

mission aims to identify and adopt technological solutions, review the current legal and institutional framework and make changes when necessary, promote, fund, finance and facilitate alternative approaches in rural electrification, and coordinate with various ministries, apex institutions and research organisations to facilitate meeting national objectives. The mission was meant to facilitate the implementation of existing programmes/schemes to accelerate rural electrification. The mission was responsible for overall planning and monitoring from conceptualisation to implementation of rural electrification schemes. However, the functioning and outcomes of the mission are very unclear. There is no evidence available on success or failure of the mission.

There is a clear shift in approach to rural electrification in India. Beginning with development centric electrification in the first phase to populist electrification in the second phase, and negligence in the third phase, it has taken a new turn in the current phase where universal electrification is emphasised. Although the state has been providing massive public funding throughout, targets have rarely been met, probably owing to the approach itself. Moreover we can see a shift in central government assistance to state governments for rural electrification, which started on the basis of 100 per cent loan in initial years shifting to grants of up to 90 per cent in recent years. The shift towards a higher grant component has taken place largely because of the state governments' reluctance to take up additional loans for rural electrification in recent years.[26] The state governments have been aggressive in acquiring central assistance, but implementation is either stalled or partial just to convince the central government. Until the current phase, the focus of rural electrification (often called village electrification in policy documents)

[26] The state governments have been providing subventions to the utilities to meet their revenue gap and sustain electricity supply. The amount of subvention has been growing with the growth of the electricity supply industry and contributing to the gross fiscal deficit of the states (Sankar, 2004). In that context any additional loan for rural electrification would be a burden on the states.

was on the village as a unit, not the household. At the same time, the implementing agencies have not tried to make the electrification programmes financially sustainable. As a result, the outcome is partial.

3.5 Rajiv Gandhi Grameen Vidyutikaran Yojana[27]: A New Paradigm for Rural Electrification

In 2005, the Ministry of Power launched a new rural electrification scheme called the *Rajiv Gandhi Grameen Vidyutikaran Yojana* (RGGVY). The scheme that assimilates all the existing rural electrification schemes is a programme of 'rural electricity infrastructure and household electrification' to provide electricity access to all the households by 2012. The scheme provides a subsidy for the establishment of a rural electricity distribution backbone, creation of a village electrification infrastructure, and promotes decentralised distributed generation where grid connectivity is either not feasible or not cost effective. The scheme retains the goals set by the constitution makers of India to bridge the urban-rural gap in electricity supply[28] and provide reliable and quality power to rural areas. Building on the experience of previous schemes, RGGVY follows a new approach to rural electrification and seeks to address the problems experienced in rural electrification.

Several provisions of the scheme make it different from its predecessors. First, the scheme sets a target of universal electrification and for the first time, it has a timeframe for achieving the target. RGGVY ambitiously aims to achieve all village electrification by 2010 and all household electrification by 2012. Second, unlike previous schemes, RGGVY emphasises on household electrification. It shows the realisation that achieving electrification of all villages is not enough to achieve universal access to electricity. Third, the scheme also emphasises

[27] Rajiv Gandhi Rural Electrification Scheme.

[28] This goal was set in the former USSR during the 1920s and in the USA during the 1930s and was achieved over the following couple of decades. Although the same goal was set in India immediately after independence, it is yet to be achieved.

financial sustainability in order to maintain the infrastructure being created and provide uninterrupted quality power. The scheme realises that "electricity supplied must be paid for" and that the willingness of rural people to pay a reasonable price had been underestimated. Fourth, the scheme has boosted the role of the Rural Electrification Corporation (REC) beyond financing. Besides performing the usual role of financing the project, REC would be the nodal agency for the implementation of the programme. It would be responsible for complete oversight of the programme from conception to completion. Fifth, understanding the reluctance and inability of state governments to take on additional loans for electrification, RGGVY makes provision for 90 per cent capital subsidy from the central government. Remaining 10 per cent of the expenditure can be drawn from the state budgets or taken up as soft loans from designated financing agencies. Finally, for the sustainability and effectiveness of the programme, RGGVY promotes the decentralised management of local electricity supply through franchisees (MoP, 2005).

Among these provisions of RGGVY, the decentralised management of local electricity supply is important for this study. The study's findings demonstrate the potential benefits of the decentralised model of electricity supply as well as scope for improvement. Though the model of decentralised supply promoted under RGGVY is not identical to the Orissa model, it is informally drawn from Orissa experience.[29] While RGGVY makes mandatory

[29] Though it not formally acknowledged, there is a consensus that the franchisee model in RGGVY draws on the micro-privatisation model in Orissa. It is a story of informal influence or motivation. The Secretary of Power (the top most bureaucrat) in the Ministry of Power during the conceptualisation and launch of RGGVY had previously served as the Managing Director of BSES, the utility company providing electricity service in three quarters of Orissa. He headed BSES at the time when micro-privatisation was implemented and supported the model. In his capacity as the Secretary of Power and as a key designer of RGGVY, he has promoted the franchisee model as part of the scheme. So it is believed that the franchisee model in RGGVY builds on the micro-privatisation model in Orissa.

provisions for decentralised electricity supply, the debate over the issue had started with the Electricity Act, 2003. The Act recommended that "the Central Government shall also formulate a national policy, in consultation with the State Governments and the State Commissions, for rural electrification and for bulk purchase of power and management of local distribution in rural areas through Panchayat Institutions, users' associations, co-operative societies, non-governmental organisations or franchisees" (GoI, 2003b). Similarly, the National Electricity Policy has stated that the "[n]ecessary institutional framework would need to be put in place not only to ensure creation of rural electrification infrastructure but also to operate and maintain supply system for securing reliable power supply to consumers. Responsibility of operation & maintenance and cost recovery could be discharged by utilities through appropriate arrangements with Panchayats, local authorities, NGOs and other franchisees, etc" (GoI, 2005). In response, the Rural Electrification Policy was framed in 2006 through extensive consultation with state governments, regulatory commissions, utilities and other non-state stakeholders. The policy aims at universal access to electricity, quality and reliable supply and "minimum lifeline consumption of 1 unit [KWh] per household per day as a merit good by year 2012". The policy aims to achieve the involvement of local communities by engaging the institutions of local government in the process. Panchyati Raj Institutions were assigned a 'supervisory/advisory' role in rural electrification and supply. The policy mandates that "deployment of franchisees for management of local distribution in rural areas is considered necessary in order to ensure revenue sustainability and improve services to the consumers...[these franchisees] could be non-governmental organisations (NGOs), users' associations, cooperatives or individual entrepreneurs" (MoP, 2006). Under the policy, involvement of the users (or local community) is limited to advisory functions and is indirect as it is mediated through the institutions of Panchayati Raj: "Panchayati Raj institutions will have an important role of overseeing, in advisory capacity, the delivery of service by the franchisees according to their identified responsibilities" (MoP, 2006).

Although the provision for decentralised delivery has significant implications for rural electrification in India, the legal and policy documents lack clarity on the issue. During its initial years, the Rural Electrification Corporation, along with the Ministry of Power, initiated debates on the issue with help from several consultants. However, no standard model emerged out of the debate. Various models have been put forward, and it is up to the states which one they choose. In practice, private companies are getting the franchisee contract, while the panchayats are only encouraged to play their role in very few cases. So far, 587 projects have been sanctioned under RGGVY, covering 473,466 villages, 41.52 million households, and 24.65 million BPL households, at a cost of Rs 319.2 billion. Of these, 573 projects are currently being executed. 259,694 villages, 15.46 million households, and 14 million BPL households have been electrified and Rs 235.64 billion has been disbursed. In per centage terms, during the last five years, 73.8 per cent of the sanctioned funds have been released, 75.7 per cent of the villages identified have been electrified, 47.9 per cent of the villages identified for intensive electrification, 37.2 per cent of households (including BPL households) and 57.1 per cent of the BPL households have been covered.[30] Despite these achievements, the task of universal electrification within a limited timeframe of less than two years remains a gigantic undertaking. Though the scheme aimed for electrification of all villages by 2010, more than 10 per cent of villages were yet to be electrified at the end of 2010. The gap between the sanctioned cost and the funds disbursed could be interpreted as an indicator of the possible delay in the execution of projects.

RGGVY has set a new paradigm for rural electrification by addressing many of the problems faced in the implementation of earlier schemes. The achievements during last five years are commendable, even though a lot is to be

[30] Physical & Financial Progress of RGGVY Projects under Implementation, available at RGGVY Website, http://rggvy.gov.in/rggvy/rggvyportal/plgsheet_frame3.jsp, accessed on January 13, 2011.

done in the next two years suggesting there is likely to be a delay in achieving the target. While the decentralised supply approach to electrification implicitly draws from the current debates on participatory development and 'putting the people at centre of service delivery', the approach is not participatory by design. While there is emphasis on decentralisation, there is no provision to ensure participation. It seems that the policy makers have assumed that decentralisation is enough in itself or that it will lead to participation. There is no doubt that decentralisation can be a means to ensure participation, but it does not necessarily lead to participation. Decentralisation, in the absence of participation, might reinforce the power relations that we want to alter through decentralisation.

3.6 Conclusion

During last six decades, the Indian electricity sector has moved from a mixed presence of state and market players in the pre-independence period to concentrated public control over the sector during the first four decades of independence, followed by an opening for market players in the 1990s, and finally, towards a policy that opened the field for literally everyone (at least in policy) to conduct business. The policy shifts in the Indian electricity sector over the period have reflected political and economic developments in India, dominant interests and prevailing development ideologies. During the initial phase, the dominant interest in India was that of industrialists, who supported public control of the sector[31] and whose views were guided by the prevailing

[31] The industrialist class, under the leadership of some of the top business families from Western India, was reasonably strong at the time of independence. It supported the government policy of running a large public sector providing capital goods, immediate products and infrastructural facilities for private industry, often at artificially low prices. In 1944, a group of industrialists produced 'A Plan of Economic Development for India', which is popularly known as the *Bombay Plan*. In this document, the industrialists argued that, 'in the initial stages [of industrial development] attention should be directed to the creation of industries for production of power and capital goods' (Thakurdas et al., 1944: 3). They believed that 'development of our [Indian] industries,

ideology in developed countries of state-directed development. This resulted in the sector being placed under public control. In the second phase, India experienced the emergence of various new interests and their gradual growth. The new interests, particularly those of the peasantry, demanded subsidies and other social benefits from the state, demands that were responded to by the states, resulting in the emergence of a populist paradox. The third phase saw a radical policy change in the sector with the introduction of private players and was mostly guided by the presence of external players, particularly international development institutions. This phase reflected certain confusions in the policy-making process. The policies of reform were adopted wholesale from the developed world with little regard for the distinctiveness of the Indian context. The process was mostly guided by the World Bank and the IMF. This phase marked a return to the technocratic model of policy making while keeping intact the populist measures. The fourth phase of policy making has returned to the professional model, but the implementation of these policies has been halted owing to the nature of the policies and political conditions at the state level. While the policy choice level shows relative professionalism, the implementation level is kept at a crawl so as to ensure populism.

Policy making in the Indian electricity sector has traditionally been overly influenced by the prevailing global ideologies of a given time and has very often been carried out perfunctorily and without much consideration of the Indian context. Although India has been adopting development policies from developed countries, it has rarely examined how the developed countries implemented these policies. For example, in 1947, the major sources of inspiration for independent India's energy policy were the USSR, the USA and the UK, as evident in the Constituent Assembly debates. However, there was no

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both large and small scale, as also of agriculture and transport will be determined to a large extent by the development of electricity' (Thakurdas et al., 1944: 21).They classified electricity as the paramount item in the category of basic industries and wanted to put it in the public domain.

discussion of how and in what context these countries nationalised their electricity sector or how the public spending for electrification was utilised. This resulted in the failure of nationalisation in the Indian electricity sector, which was so successful in other countries. During each of the policy shifts outlined above, a set of new institutions were created to implement these policies, which has resulted in institutional layering and pluralism in the sector. Like other public institutions in India, these institutions seem to be designed in such a way that they foster perverse incentives. In the absence of clarity about their responsibilities, autonomy and the devolution of authority in order to maintain political control over them, the institutions have performed poorly, leading to chronic inefficiencies in the sector.

From the discussion in this chapter, it is evident that the Indian electricity sector has developed several inefficiencies over the past six decades that impede its performance. First, technical and commercial loss in Indian electricity is as high as 35 per cent, while the loss for a standard efficient system is below 10 per cent. Second, the high level of theft is a unique feature of Indian electricity and is almost non-existent in efficient electricity delivery systems. Third, poor revenue realisation due to non- payment by users induced by theft and political protection and ineffective revenue collection mechanism has contributed to the financial crisis of the utilities. Fourth, lack of transparency, resulting in high levels of corruption, and lack of accountability has contributed to the poor quality of the service. Fifth, the Indian electricity sector has underestimated the potential of end-use efficiency, which has resulted in unethical use and overuse of the service. Lack of end-use efficiency coupled with the other problems discussed has contributed to a poor quality of supply which is evident in low voltage and frequent blackouts. Finally, all these problems together have seriously impeded access to the service for the poor, undermining the social objective set at the time of independence to bridge the gap between urban and rural areas and between rich and poor in terms of access to the service. The current paradigm for electrical development in India has taken a two pronged approach- one based on market competition

and the other based on the decentralised management of supply- to address these inefficiencies and improve electricity supply. This study analyses the potential benefits of this relatively new focus on the decentralised management of electricity supply based on the experiences of two cases of decentralised participatory electricity distribution in Eastern India.

Chapter 4

Research Methodology and Selection of Cases

4.1 Introduction

Research is not just a process of gathering information, as it is sometimes suggested. Rather, it also involves evaluation of those information, answering unanswered questions and knowing the unknown. In many ways, it could be seen as a process of expanding boundaries of our ignorance. To be focused in the process, to get right answer for specific questions, we need a clear research methodology and specific cases/context to study. Research methodology is a highly intellectual human activity used in the investigation of society and deals specifically with the manner in which data is collected, analysed and interpreted, while context is central to the findings.

The current chapter outlines the research methodology and case studies of the research project. It explains the focus of research by shaping research questions based on the theoretical frameworks used in the study (See Chapter 2), identifies specific cases to be studied to answer the questions, outlines various research methods used for data collection, analysis and interpretation and limitations of the study. The chapter is organised as follows. Section 4.2 outlines research questions and hypothesis addressed in the study, why they are relevant and the expected answers to these questions. Section 4.3 discusses the research methodology and provides justification for the adopted methodology. The two cases selected for analysis are explained in the following section (4.4). Section 4.5 elaborates various research methods adopted for data collection and reasons for adopting them. Finally, Section 4.6 details the limitations of the study.

4.2 Research Questions

Following the debate over the importance and desirability of participatory approaches, several decentralised participatory institutional innovations have been made at the micro-level during the past decade to improve service delivery provision in India and globally. My research seeks to examine two such institutional innovations in Eastern India, one in Orissa and another in West Bengal, to discover the potential of decentralised users' participation in electricity service delivery. For this purpose, I aim to analyse the relationship between decentralised users' participation (process) and the efficiency and effectiveness of service delivery and the political efficacy of the participants (effects), and how the process and the effects are affected by the context under which the former takes place.

The primary objective of decentralised participatory approaches has been efficiency enhancement. Does decentralisation and greater participation in electricity delivery contribute to efficient electricity provision? Does the level of participation affect the level of effectiveness? While contributing to the primary objective, participation in users' associations is expected, drawing on participatory democracy, to produce some democratic outcomes – political efficacy and civic values. The study also seeks to find out if participation in these micro-institutions has such democratic effects. While participation as a process is expected to have efficiency, effectiveness, political efficacy and democratic values as effects, it is important to examine the context under which the process takes place and what impact this has on the process as well as the effects.

Current research proposes following three working hypotheses, partly built on the existing theories of participatory development and participatory democracy and partly on the expectations from the case studies. Firstly, *decentralisation and increased users' participation in electricity delivery will contribute to the efficiency and effectiveness of the service*. As stated earlier (and explained in the following chapter), electricity service provision in India is plagued with chronic inefficiencies, largely at the delivery end, and weak

accountability mechanisms. It is increasingly argued that these inefficiencies could be addressed and accountability between the providers and the users could be restored by involving the latter in the delivery process, by empowering them to plan, manage, monitor and own the local delivery mechanism. Secondly, *participation in users' associations will enhance the political efficacy of the participants and foster the civic values they hold*. The rural population in India has little or no say in decision making, lacks any political activism beyond voting, and, consequently, they are taken for granted. This has resulted in a low level of political efficacy and civic consciousness. It is expected, based on the spillover thesis (Pateman, 1970), that by participating in group activities (within users' associations more specifically) and sharing responsibilities, rural people will exhibit greater political efficacy and civic consciousness. Thirdly, *the process of users' participation and its effects on the efficiency and effectiveness of service delivery and the political efficacy and civic consciousness of the participants will be affected by the context under which participation takes place*. How a political process works and what outcomes it produces depend to a large extent on the context in which it occurs (Goodin and Tilly, 2006). Thus, it is expected that users' participation in the process of electricity service delivery and its effects will be affected by the context under which users participate.

In this study, participation is interpreted as user involvement in the delivery process in any form. This could range from nominal membership of users' associations to active participation in planning, management, monitoring and even ownership. The objective of the study is to find out if the level of participation affects the expected outcomes and to what extent it has been affected by the context. Decentralisation, in this study, means having a local service provider with all the responsibilities related to electricity delivery or sharing some of the responsibilities with the utility. The study aims to find out whether presence of a local service provider improves efficiency and effectiveness of electricity delivery. In the following sections, I discuss the various indicators that I have used to examine the outcomes of decentralisation and participation and how these indicators are identified and assessed.

By efficiency in electricity service delivery, I refer to efficiency on the part of the providers as well as the consumers. The study primarily investigates the improvements in *operative* and *allocative* efficiency, the developments that contribute to even distribution of the costs and benefits of the electricity service. The study assumes users' participation has a positive and direct impact on operative and allocative efficiency, and it thus indirectly contributes to *productive* efficiency and effectiveness in service delivery. To measure the improvements in operative and allocative efficiency in the sector, the study has identified five indicators, drawing on the existing inefficiencies in the electricity sector and the challenges of electricity delivery in rural India, as discussed in the following chapter.

- Reduction in Theft (Part of commercial loss): Aggregate technical and commercial (At & C) loss in the Indian electricity sector is as high as 40 per cent, which is too high by any standard.[32] Theft, which is rampant in rural areas due to lack of monitoring, comprises a major part of this loss. Establishing participatory micro-institutions and empowering them to monitor the delivery process is expected to check theft. Has the presence and functioning of users' associations contributed to a reduction in unaccounted consumption of electricity in the region? It is expected that an indirect outcome of a reduction in theft will be an increase in legal connections. Have legal connections in the region increased after users' involvement?

- Improvement in End-use Efficiency: The absence of end-use efficiency is another, although less debated[33], problem in the sector. Due to the absence of

[32] The international standard for loss in efficient electricity sectors is below 10 per cent.

[33] End-use efficiency is a less debated issue within the debate on improving electricity service delivery. It is so because the emphasis has been on improving the supply side (generation) to improve delivery rather than improving demand-side management (See Chapter 3 for details). However, in past few years, there is a growing emphasis on end-use efficiency or demand-side management to achieve climate mitigation. But the new efforts for end-use efficiency (or 'energy efficiency', as it is called) are

proper metering and their lack of understanding, users often consume electricity in an inefficient and unethical way. Participatory micro-institutions are expected to educate the users on efficient use of electricity. This should result in a reduction in the quantity of electricity consumed and thus contribute positively to the electricity crisis. Has the load declined since the establishment of these institutions? It must be considered, however, that there may be a load increase owing to an increase in legal connections.

- Improvement in Revenue Realisation: Rural areas have a poor revenue record due to the lack of cooperation from consumers and political protection from disconnection. At the same time, inflated and intermittent billing and collection, resulting in high accumulated arrear, has contributed to non-payment. Collaborative efforts by community members and regularised billing and collection are expected to motivate users to pay their bills on time. Has this contributed to improvements in revenue collection?

- Reduction in Technical Loss: Distribution networks in rural areas lack proper maintenance due to their large geographical area and the lack of sufficient human resources. With the formation of users' associations, it is expected that minor maintenance work will be undertaken by the local community with help from providers. This is expected to contribute to a reduction in technical loss. Has the users' association taken up any maintenance work? Due to the lack of proper maintenance and heavy load (because of illegal consumption), the quality of electricity is poor in rural areas. Does the quality improve when other problems are addressed?

- Improvement in Quality of Supply: Quality of supply is another indicator of efficiency in electricity supply industry. It has two components: continuity of supply and reasonable voltage level. Supply interruptions, affecting continuity, and voltage fluctuation is very common in rural electricity delivery. Rural

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concentrated in the industrial sector; there is much to be done in the domestic sector to achieve end-use efficiency.

consumers are given low priority when it comes to quality of supply due to low revenue realisation in rural areas, weak political muscle of rural consumers and lack of sensitivity to their issues. When the above problems leading to inefficiency in electricity delivery are addressed, the quality of supply is expected to improve. While maintenance of distribution network and reduction of peak load is expected to reduce the chances of breakdowns, increased revenue realisation is expected to make the utility attentive towards users' interest. On the other hand, the users' associations are expected to provide a platform for the rural users to air their voice, unitedly and strongly and enter into bargains for better supply. Has the quality of supply improved in the study areas, which should be reflected in stable voltage and continuous supply?

When these problems are addressed, it is expected that the productive efficiency of the sector will increase as service provision becomes economically viable, and access to the service will be extended to other areas. However, I do not deal with productive efficiency in this work.

Though the literature on public service delivery is full of debates over effectiveness in service provision, there is less clarity on what effectiveness means. In case of electricity service, effectiveness has repeatedly been used simultaneously with and as a synonym of efficiency and from a quantitative perspective. Efficiency gain in service delivery does not necessarily mean effective service provision. While efficiency gain refers to improvements in capability to deliver, effectiveness refers to the accuracy and completeness with which service is delivered. A service provision is considered effective when service users are satisfied with the service and service has resulted in beneficial outcomes for the service users. To understand effectiveness of electricity service in general, we need to understand how it is used and what beneficial outcomes it produces for the electricity users. However, the study does not seek to assess effectiveness of electricity service. Rather it aims to analyse effectiveness of a particular model of electricity service delivery, based on decentralisation and users' participation, in achieving the desired objectives and

allocative efficiency. In case of Indian electricity, the objective is not just efficient service delivery, but a socialist goal set by the constitution makers of India- providing universal access to electricity, as a right, at affordable rate, and at least, to the level essential for secure and adequate livelihoods as well as dignified life (Swain, 2006). Improved effectiveness will be reflected in increased transparency and reduced corruption, ease of access to service providers, improved quality of service, and equity of access and value for money. To understand how far decentralisation and users' participation has contributed to effectiveness of electricity delivery system, the study has assessed the following four indictors of effective service delivery:

- Improvement in Transparency and Reduction in Corruption: In the absence of transparency, corruption has emerged as a chronic problem in electricity provision challenging effectiveness of the service delivery. Corruption in electricity provision is rampant and practised at various levels through informal nexus between politicians, bureaucrats, utility staff and muscular user groups. At macro level, corruption has taken the form of patronage in human resource management, location of generation plant and distribution network, while at micro level it has often taken the form of bribe. Users' participation is expected to reduce the level of corruption by improving transparency in the process of electricity delivery. Considering the micro nature of institutional innovation for decentralisation and users' participation as well as limited coverage, the study analyses its contribution to improvements in transparency and reduction in corruption at micro level.

- Improvement in Accountability: Holding the service provider accountable requires that there is transparency. But transparency is not enough to ensure effectiveness in service delivery; there is a need for accountability between the service provider and users, which has been missing in Indian electricity. The conventional model of electricity delivery, where the bureaucrats responsible for service delivery are supposed to be *responsive* to the users and *accountable* to the government, has failed to build a relationship between the

service providers and users in most developing countries, and more so in India. The method has not only failed to produce top-down accountability from the service provider to the users, it has also failed to bring about bottom-up accountability from users to the service provider. The solution to the problem is sought in bringing the provider closer to users (through decentralisation) and involving users in the delivery process (through users' participation). Has decentralisation and users' participation in electricity delivery improved accountability between the service provider and the users?

- Improvement in Quality of Service: Poor service quality is another problem that affects effectiveness in electricity service delivery. Service quality here indicates the quality of various interactions between the users and the service provider, which includes regularity and accuracy in meter reading, billing and bill collection, repairing faulty meters, and handling complaints. Poor service quality, in the form of inattention, extortion and humiliation, is often the single reason for low access to the service among the poor. Has the presence of a decentralised service provider addressed the problem of poor quality of service? Has the quality of interaction between the service provider and the user improved?

- Improvement in Access to Service: While India has achieved 85 per cent village electrification, only 44 per cent of rural households have electricity. Most poor households do not have access to the service for two reasons. Firstly, in a centralised delivery system managed by bureaucrats, access to service requires the payment of bribes, which the poor cannot afford. This results in differentiated service delivery based on the willingness and capability to bribe (Bardhan and Mookherjee, 2006). Secondly, electricity is a monetised commodity, and the poor are often unable to meet the cost. The demand for electricity among the poor will increase if they perceive the monetary benefits of the service and if the cost can be reduced to meet their means. The latter will require some kind of state subvention. Although the state has been subsidising electricity costs for the poor, it is not properly targeted. The

participatory model is expected to reduce the bribery that occurs in the process of getting a connection through ensuring transparency in the process and empowering the users' to bargain on the size of bribe. On the other hand, participation in a users' association is expected to make people aware of the monetary benefits of an electricity service. Finally, the users' associations are expected to serve as an agency for identifying the beneficiaries of subsidies. To what extent are these developments taking place? Has it contributed to improving access to the service? It is assumed that further household electrification will include poor households, if not the poorest among them.

The second aim of the study is to detect the macro-political implications of the model. By macro-political implications, I refer to the outcomes that enhance the political efficacy and civic values of the participants. Pateman (1970) defines political efficacy as "the confidence in one's ability to participate responsibly and effectively, and to control one's life and environment" (pp. 45-46). In its simplest form, political efficacy is the belief that citizens can affect the political system of which they are a member. In its earlier form, political efficacy was used as a predictor of political behaviour, but recently it has evolved into an indicator of democratic systems (Sullivana and Riedela, 2001). There are two types of political efficacy: firstly, internal political efficacy refers to the belief that citizens can understand and influence decision making; secondly, external political efficacy refers to the belief that decision makers will respond to the demands of citizens (Sullivana and Riedela, 2001). Internal political efficacy is more a psychological feeling on the part of citizens, of having a voice and being empowered to make decisions, while external political efficacy requires substantial accountability from decision makers. The literature on democratic theory claims that participation in non-political organisations has a positive effect on individuals' level of political activism and activism in wider society (Pateman, 1970; Verba et al., 1995). This is known as the 'spillover thesis'. Carole Pateman, the main proponent of the thesis, claims that there is a direct link between workplace participation, political efficacy, and political participation: participation in workplace decision

making will spill over into wider society and lead to increasing participation in political activities beyond the workplace. Pateman also claims that people "learn to participate by participating and that feelings of political efficacy are more likely to be developed in a participatory environment" (Pateman, 1970: 105).

Building on the spillover thesis, the study seeks to discover whether users' participation in electricity delivery contributes to the political efficacy and civic values of the participants and what is its implication for democratic practice. To identify the spillover effect of participation in service delivery, the study proposes five indicators that show improvements in political efficacy and civic values. In an ideal case of participation, the study assumes that these indicators will demonstrate the extent of the improvement in political efficacy and democratic values – a greater presence of these indicators will show greater improvements in political efficacy and civic values.

- Enhancement of Human Dignity and Self-Respect: Human dignity and self-respect, as sources of freedoms and rights, have an important role in democracy. Though they are inherent and inviolable rights of every individual, human dignity and self-respect are frequently violated and compromised in unequal societies like India, through norms of inferior and superior status. This is very much visible in the relationship between service users and service providers, where the latter gets an undue superior status than the former. Participation in users' associations is expected to improve human dignity and self-respect of the electricity users. This development would be visible in rising consciousness on rights, demand for them and sense of equality in dealing with service providers.

- Construction of Citizen Consumers: Participatory forums are expected to provide information to the participants and improve their awareness about developments. This will contribute to creating an informed citizenry and introducing transparency into service delivery. Rural households usually lack awareness about electrical developments and the costs and benefits of the service. The study seeks to discover if awareness has increased in the areas

where users have a participatory association. This would lead to construction of a new identity for the service users, i.e. citizen consumer, who is aware of his rights and obligations.

- Promotion of Leadership, Group Solidarity and Collective Action: Due to their lower exposure to formal decision making, rural people are often reluctant to take leadership roles. This has resulted in a status quo in the power relations in rural areas; the same people hold power for a long time. The enhancement of political efficacy is expected to generate a willingness to take on leadership. It is expected to lead to representation for members in other forums, decision-making bodies or local government institutions. For example, in Andhra Pradesh, 9,500 women from self- help groups and their federations have been elected to various local government positions.[34] Solidarity and mutual support is central to rural societies. With increased participation in users' associations, this solidarity is expected to grow, contributing to democratic values. This growth in solidarity within the community/group is expected to extend to inter-community/group solidarity. Rural areas comprise several intersecting groups based on social, economic and political status. Do these groups have solidarity with each other? Do they support each other in their operations? Improvement in political efficacy will be reflected in the increasing ability of the community to propose and undertake actions for development. With all these developments, the community forum should grow to take up other related activities. For example, Sivani, a self-help group in Orissa, has popularised iodised salts in some tribal villages. Members of this group have persuaded hundreds of tribal women to include iodised salt in the daily diet of their families to fight iodine deficiency disorders.[35] Have any such developmental activities, beyond the core activity,

[34] India: Women's Empowerment, World Bank, http://go.worldbank.org/8Z3GHYVJU0 accessed on March 23, 2009.

[35] Self-Help Groups Popularise Iodised Salt in Orissa Rural Homes, available at http://www.andhranews.net/India/2007/May/14-Self-help-group-1295.asp accessed on March

been taken up by the electricity users' associations?

- Declining Faith in Government: While participation strengthens and fosters democratic practices, it may also lead to negative assertions. One such negative assertion is declining trust in the government, often noticed in developed countries where the state has been withering (Nye, 1997). Among other facts, the key reasons for this assertion are the contradictions between assurances given and action taken by the government and emergence of non-state institutions to take up actions crucial to well-being of citizens. As people engage in deliberation, it is assumed, they will be become aware about the failure of the state in keeping up its assurances and efficiency of non-state institutions, which may lead to declining faith in government efficiency. Is there any such assertion visible among the electricity users?

- Increasing Participation: One of the indicators of rising political efficacy and democratic values is increased participation not only within the electricity users' associations but also beyond it, in other grassroots organisations. It will result in an organised voice for the rural poor. Have these developments taken place in the cases under study? Here, participation is not only limited to membership and presence in the meetings but also includes active involvement in debates, deliberations and questioning. Electricity users' associations are expected to be more participatory in this sense because the users pay a direct cost in bills for service access, and thus, they have a direct stake in the process. But does it translate to higher participation in other local forums in their areas? Here, the focus is on participation in local government. The study aims to find out if participation rate is higher among electricity users in local government meetings?

In recent years, it has been argued that the spillover thesis is overly simplistic, and there have been calls for its revision. The revisionists claim that participation may not always have a positive impact, and participation may only

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23, 2009.

contribute to political efficacy in specific 'contexts' (Greenberg et al., 1996; Ayala, 2000; Carter, 2006). Similar arguments can be made about the impact of participatory approaches on efficiency and effectiveness of service delivery. This brings us to the third aspect of the study: the importance of context as a variable in political analysis. Social and political processes are deeply embedded in the contexts that produce and are produced by them (Pettigrew, 1997; Goodin and Tilly, 2006). Be it the impact on efficiency and effectiveness of service delivery or political efficacy, I assume that the context in which users participate matters. The study has identified five contextual factors that may affect the performance of the participatory groups.

- The effects of participation are affected by the mode and intensity of participation – how and to what extent people participate in these forums. For example, direct participation is expected to have different effects to a representative form of participation. More intense participation, where people share responsibilities and powers or have full control, is expected to have greater empowering effects (Arnstein, 1969). Two other variables – the origin and size of the participatory groups – shape the effects of participation by influencing the level of participation (Carter, 2006). People may take part in participatory forums because they have volunteered to do so or because they have been invited, exhorted or coerced (Barnes et al., 2003). In each case, the level of participation will be different and is thus expected to have varying effects. The size of the group also influences the intensity of participation and thus the outcomes of participatory forums. While face- to-face interaction is possible in small forums, the larger forums usually depend on representative participation. The smaller the size of the group, the better the outcomes (Dahl and Tufte, 1973; Finsterbusch and III, 1989; Carter, 2006).
- The objective of these participatory groups is also expected to influence their outcomes. What people seek to achieve through participating and what the promoting organisations seek are both important in shaping the outcomes. For example, the outcomes will be different in cases where people seek to uncover

their individual preferences compared to cases where people seek to deliberate and create a collective agreement.

- In the case of the service delivery systems, ownership of the delivery mechanism is also an important factor in determining the outcome. Ownership of the delivery mechanism instils a sense of responsibility and empowerment among members, and full control over management and planning may lead to better outcomes. However, it requires some expertise, which could be provided by a guiding organisation or federation of the groups.
- The institutional settings under which the participatory groups operate have a direct impact on the functioning of the latter. Prevailing institutions may bar or facilitate the development of democratic citizenship (Hadenuis, 2001) and other efficiency- related outcomes. Institutional settings that are prone to capture by elites and highly centralised and non-responsive structures may turn participation into a negative experience for members.
- Finally, the wider social and political environment has great impact on the participatory experience. For example, Agarwal (2001) shows how women are excluded from community forestry in India because the social norms define domestic work and childcare as their responsibility, and social perceptions discount their abilities and opinions. In different case, the Indian states of Kerala and West Bengal, which have been governed by leftist political parties, have done better in setting up Panchayat Raj institutions and ensuring grassroots participation. The willingness of the governing political parties to promote participatory systems and the political ideologies they hold also matters.

The first three of these contexts are inner contexts of the decentralised and participatory model of electricity delivery, while the last two are outer contexts. The cases studied in this research project vary across these five inner and outer contexts. I assume that the impacts or outcomes of decentralisation and users' participation in electricity delivery are mediated through these contexts. The study seeks to find out if and how these contextual factors shape the participation process and its outcomes.

4.3 Research Methodology

The research follows the interpretivist research paradigm. The core idea of interpretivism is that the world does not exist independently of our knowledge of it. Social phenomena do not exist independently of our interpretation of them and these interpretations affect outcomes. So the interpretivists are concerned with 'subjectivity', 'understandings', 'agency' and the way people construct their social world. Though it brings in clarity in explanation, on the flip side, it introduces complexities that involve elements of uncertainty. There is even the possibility of contradictions and internal inconsistencies arising as part of the explanations produced by interpretivists (Denscombe, 2002: 21-22). Interpretivists' explanation does not sit comfortably with the scientific research for universal laws or certainty about how things work. However, the interpretivists do not aim to present a metatheory, rather they aim to produce middle-range theories or grounded theories on how things work within specific context. As opposed to the positivists who tend to model their research on the natural sciences, the interpretivists believe that "there is a clear distinction to be made between the natural and the social world, and therefore we need a methodology and methods of gathering data that are more in tune with the subjects we are studying" (Grix, 2004: 82). This study aims to analyse the potential of a specific model of service delivery under specific contexts fits well within interpretivist paradigm.

The interpretivist research paradigm is closely linked to qualitative research methodology. Generally qualitative researchers place their research within the interpretivist paradigm by using methods for data collection and analysis which are flexible and sensitive to the social context in which the data is produced. Such research involves interpretation of data, and analysis of cases in their social and cultural context over a period of time. It emphasises tracing the process and sequence of events in a specific setting (Holloway, 1997). The current study is an observation and interpretation of decentralised and participatory electricity delivery that analyses two cases from Eastern India over

a period of time by tracing the process and sequence of events related to electricity delivery within specific social context.

Theory has an important role in research. Interpretivists believe that theory helps in understanding the social world by describing and interpreting how people conduct their daily lives. They see theory as deriving from data collection, but not as the driving force of research. Many interpretivists would not test a theory in the field, rather would build theory from the data (Grix, 2004:108). The current research, however, uses theory to shape the research and working hypotheses. But it goes beyond testing the theory by expanding the theory based on the data. It aims to build a middle-range theory by integrating theory and empirical data.

The objective of this study is to map the participatory process in electricity users' associations, its effects, and how the process and its outcomes are influenced by the context under which the process takes place. For this purpose, I follow the approach of processual analysis that seeks to account for and explain the what, why and how of the links between context, processes and outcomes. Here, the process means "a sequence of individual and collective events, actions and activities unfolding over time in context" (Pettigrew, 1997: 338) . In processual analysis, a process is often used in three ways: (i) as a logic used to explain a causal relationship in a variance theory; (ii) as a category of concepts that refer to the activities of individuals and organisations; and (iii) as a sequence of events that describes how things change over time (Ven, 1992: 169). Among these three approaches, the third explicitly and directly observes the process; thereby, it is able to describe and account for the changes happening over time and how they happen. Building on this approach, the thesis examines decentralised electricity delivery process as a sequence of individual and collective events, actions and activities unfolding over time within the electricity delivery system and their effects on electricity service delivery.

Actions, both individual and collective, are key in processual analysis as they drive the processes. However, processes cannot be explained by just

referring to actions. Actions are embedded in contexts which limit their information, insight and influence. Both actions and contexts have a dual quality which needs to be recognised in the analysis. “Contexts are shaping and shaped. Actors are producers and products” (Pettigrew, 1997: 338).

There are several methods of conducting social science research, including surveys, experiments, histories, analysis of archival information and case studies. Actual suitability of a research method derives from the nature of social phenomena to be explored (Morgan and SmIrcich, 1980). The choice of method for a given study is determined by three factors: (i) the type of research questions; (ii) the control an investigator has over actual events; and (iii) the focus on contemporary as opposed to historical phenomena. Case studies are the preferred strategy for explanatory studies where the researcher has little control over events and the focus is on a contemporary phenomenon (Yin, 1994: 1). Case study is an empirical inquiry that investigates a contemporary phenomenon within its real life context using multiple sources of evidence. It is focused on how and why things happen and differences between what was planned and what actually occurred. Case study approach has been criticised for lack of scientific rigour, reliability and generalisability. However, the strength of the approach lies in the fact that it enables the researchers to gain an holistic view of a particular phenomenon or series of events and can provide a round picture since many sources of evidence are used (Yin, 1994). This strategy fits the current research well as it aims for an in-depth examination of a contemporary phenomenon and focuses on understanding the dynamics present within a particular setting.

The study primarily uses a qualitative approach for data collection and analysis. In social science research, qualitative research does not measure processes, in terms of quantity, amount, intensity or frequency. It focuses on insights, discovery and interpretation rather than mere hypothesis testing (Noor, 2008: 1602). Qualitative research practice is sometimes criticised for being non-scientific and thus invalid. However, the alternative, i.e. quantitative

practices, has a probability factor inherent which affects the accuracy of findings. Moreover, all social aspects are not quantifiable. That requires observation and interpretation to draw conclusions. “Qualitative research properly seeks answers to questions by examining various social settings and the individuals who inhabit these settings. Qualitative researchers, then, are most interested in how humans arrange themselves and their settings and how inhabitants of these settings make sense of their surroundings through symbols, rituals, social structures, social roles and so forth” (Berg, 2007: 8).

As the model of decentralisation and users’ participation studied is being tested at the micro level, there is no statistical data available on the cases. At the same time, it is hard to quantify the implications for political efficacy by the indicators that I have identified. Although attendance in these forums is quantifiable, real participation and its effects need qualitative observation. For the analysis of the political implications (the contributions to the political efficacy) of the process I will use interpretative and qualitative methods. Wherever statistical data is available, I have performed quantitative analysis. However, much of the information collected through the fieldwork is qualitative in nature as it was obtained through personal interviews, focus group discussion and observation in the field.

4.4 Selection of Cases

This research follows a ‘multiple case holistic design’ approach for case selection. The study focuses on two cases of decentralised participatory electricity delivery in eastern India- Orissa and West Bengal- for in-depth analysis. In a multiple case study, the case should be selected so that it either “predicts similar results” or “produces contrasting results but for predictable reasons” (Yin 1994: 46). The cases selected in my research are expected to produce similar result, but in varying degree for predictable reasons (context). Pettigrew (1990) suggests those cases should be selected that represent extreme situations and critical incidents, polar types, and have a greater probability of obtaining access to the data. The cases focused in this research

represent a critical issue of innovation in electricity service delivery and represent different context. The case studies address a social and developmental problem, i.e. limited access to electricity service, through a new mode of governance. At the same time, it follows my personal research interest in electricity service and my past research on politics of electricity service delivery in India. These particular cases are selected partly because of the limited number of cases available for the phenomenon and partly because of accessibility to information. While the common factor in all the cases is decentralisation and users' involvement, they have different contexts and different levels and forms of decentralisation and participation; and are thus expected to present varied level of outcomes. Discussion of the individual cases follows.

4.4.1 Micro-Privatisation of Electricity Delivery in Orissa

In 2001, as a follow up to the larger electricity restructuring process, Orissa introduced a model of micro-privatisation in electricity supply in some rural areas. Micro-privatisation was a strategy to bring in efficiency and effectiveness in the existing electricity supply system through decentralisation and users' participation. The first step of the model is creation of Village Electricity Committees (VECs), which are essentially electricity users' association. The next step planned in the blueprint of the model is putting in a local micro-entrepreneur (i.e. franchisee) between the utility and the users. Presence of the franchisee ensures decentralisation of service delivery, while the VECs ensure users' participation in the delivery process.

Under a project called 'Orissa Rural community Electricity Supplies', supported by DFID and implemented by Xavier Institute of Management, Bhubaneswar, three thousand VECs were created and trained across Orissa. In order to make the VECs sustainable, they were either directly integrated with the utility or were integrated through franchisees. With the initial success of the model, the utilities and the state government have promoted

establishment of VECs, resulting in thousands of VECs all over Orissa. Most of these VECs are functional now, though in a limited way than planned. However, few franchises were established under the project and some of them are still continuing to operate.

VECs are democratic associations of electricity users, with a responsibility to make the service provider accountable, solve local issues through coordination among users and look after the interests of both consumers and the provider. The VECs have taken up functions such as curtailing electricity theft, promoting and recommending new connections, helping in meter reading and bill collection, and many other functions. In return for the reduced loss and improved revenue collection as a consequence of the above functions of the VECs, the providers are committed to improving the quality of the supply and service. The VECs also receive complaints from the users which they redirect to respective authorities. In the model, the VEC is a village level institution and all legal electricity users in the village are member of the VEC. The committee is usually headed by a small governing body that is selected by the members. The committee normally meets every month and additional meetings are held whenever required. However, there is no rigid format for its organisation and functioning. The VECs perform like deliberative forums in which the members together decide on new connections, disconnection of defaulters, planning extensions and the activities of the committee. In so doing, the VECs bring together the villagers at one forum, irrespective of their social status.

The franchisee is a local entrepreneur, who is appointed by the utility to perform most of the functions of the utility. The functions of the franchisee largely involve interacting with the users, such as meter reading, billing, revenue collection, local maintenance, receiving complaints from users and addressing the complains when possible. The franchisee works as an agent of the utility and paid by the utility based on its economic performance. The purpose of having a franchisee (or local service provider) is to bring the service

provider closer to the users and get cooperation of users by using local human resource. The size of the franchisee varies from 30 to 100 villages. The franchisee studied in the research serves to 90 villages and has 28 regular staff.

Micro-Privatisation was a strategy promoted by development consultants to protect the interests of users (better quality and a more reliable service) and providers (revenue collection and loss reduction) as well as to establish an accountability mechanism between them (Author interview with one of the designers of micro-privatisation model). On the other hand, it provides an opportunity for direct participation to rural people, who have traditionally been excluded from mainstream politics and development. Both the VECs and the franchisee work under large distribution companies, with the objective of enhancing efficiency in service delivery in rural areas. Their role is limited and defined by the distribution companies, and the latter decides what to do with the information provided by them. If they make any suggestions for electrical development, it is the distribution company who decides whether to consider it. The entire distribution network is owned by the distribution companies.

The complete model of micro-privatisation has a three-tier institutional structure: first, at the top, there is the electricity utility with large geographical coverage (Orissa has only four utilities serving the whole state); second, there is a franchisee covering a number of villages (up to one hundred) who serves as an agent of the utility with some decentralisation of responsibilities; and third, there is a VEC at the village level. Although the utility remains the ultimate authority, some functions are decentralised to the franchisees and VECs. The VECs are primarily responsible for village-level planning, facilitating the service provider's activities and generating users' awareness and activism. The franchisee looks after the activities of the service provider in his coverage area; however, he does not have much say in planning. Complete models of micro-

privatisation exist in a few western districts of Orissa. In effect, there are two forms of decentralised participatory electricity distribution system: in the first case, all three insti tutions are present (complete micro-privatisation), and in the second case, the utility and the VECs are present. I have covered three villages from both cases. In the analysis, I refer to the first case as 'franchisee -served villages' and the second case as 'utility-served villages'. All these villages are located in the Bargarh district in Orissa (See the map below).

Map 4.1: Location of Fieldwork in Orissa

It is important to understand the larger socio-political environment and institutional settings under which the delivery system works. The level of political engagement has been very low in Orissa compared to other Indian states. In places where class consciousness has permeated the political process in India, it is usually based on a consciousness of caste-class overlap. However, this is absent in Orissa because of the high degree of economic and cultural fragmentation within castes and is further undermined by the well-established practice of fielding co-opted candidates from intermediate and low caste groups. The absence of a middle class in much of Orissa results in the absence of demand-based politics and also in the lack of a challenge to the dominance of a small number of upper caste (and class) elites in the political

system. Orissa missed the momentum of land reforms, the Green Revolution and Mandal, which acted as mobilising factors for many other Indian states. The benefits of the new post-liberalisation economy are concentrated among the elites as few outside the elites have the requisite level of educational and socio-economic advancement. In comparison to other Indian states, Orissa's political and class structure has been characterised as a relatively stable two-party system in which the upper castes and class dominate. Orissa has continued to be viewed as a state in which the politics of traditional dominance' rather than accommodation reign with regard to the lower castes and classes.

Formally, since independence, Orissa has been relatively active in creating a system of local government and decentralisation, starting with legislation creating Gram Panchayats in 1948. However, the results have been very poor in practice. Orissa, although the performance of these institutions has not as yet documented, would be on the lowest rung in terms of grassroots participation, mobilisation and functioning of Panchayati Raj institutions. *Gram Sabhas* (village committees), the lowest tier of local government and a forum for direct participation, have not been created in Orissa. Little importance has been attached to the development of an effective decentralised governance system in Orissa. In fact, in my view, it has been used as a tool for 'traditional dominance' and reinforces the existing power structure. In this context, the experience derived from participatory users' associations could prove to be an opportunity to break through the existing power structure and promote grassroots mobilisation. However, on the other hand, it could reinforce existing pattern of dominance, turning participation into a negative experience.

4.4.2 Rural Electric Cooperatives in the Sundarbans, West Bengal

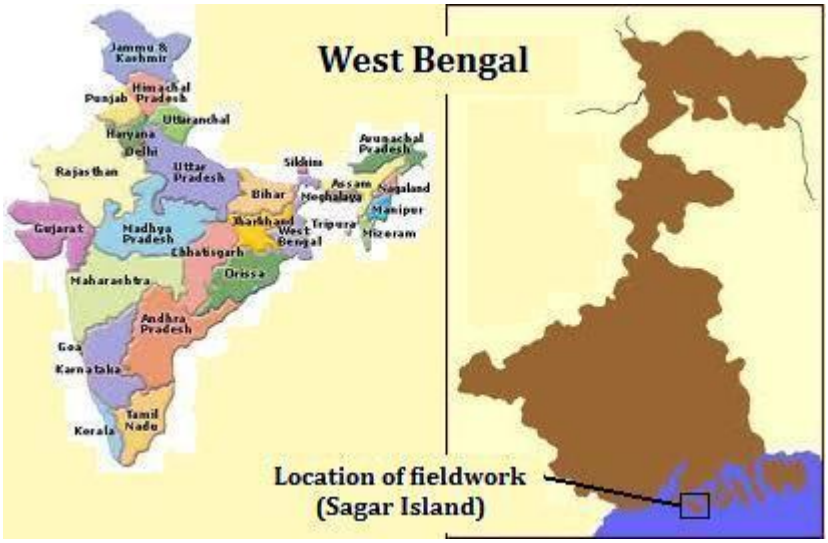
Due to its geographical terrain, the Sundarbans in West Bengal lacks access to the electric grid connection. Until the mid-1990s, very few people had access to electricity, which was generated via diesel generators. With the involvement of the West Bengal Renewable Energy Development Agency (WBREDA), the Sundarbans now has solar photovoltaic generating stations, which provide

electricity service to more than 41,000 households (half a million people) on the islands in the area. Under the model implemented by WBREDA, both the generating stations and the distribution of electricity are operated collectively by the local community. Local management committees oversee the day-to-day management of the mini grid and are responsible for accepting consumers, choosing the routes for distribution lines, setting the tariff in consultation with WBREDA, collection of payments from users and dealing with non- payment problems. The tariff, which includes the cost of services and funds for development, is set in discussion with local users. WBREDA supports the users' associations, advising them on administrative and financial matters, and provides technical input. WBREDA and the local committees make efforts to educate people about efficient use of electricity. To date, investment has been made by the state through WBREDA and ownership is indirectly held by the users. Recently, however, the success of the model has attracted private players' interest in investing in electricity generation from renewable sources.[36] The model of distributed generation and rural electrification in the Sundarbans has a three-tier institutional structure: beneficiary committees, cooperatives and WBREDA. Each solar plant, serving one or two villages, has a beneficiary committee that performs similar functions to the VECs in Orissa. The beneficiary committee's membership comprises all users and the local representatives of local government. All such beneficiary committees, coming under one administrative block, form a rural electricity cooperative. The cooperative is the owner of all the solar plants within the same administrative block and is responsible for the overall management of the plants and delivery of the electricity service. Finally, WBREDA serves as a guiding body for all the cooperatives and provides technical support to them. There are three such cooperatives operating in the Sundarbans area. In my research, I have examined

[36] Moreover, the government, in collaboration with private players, is aggressively planning for and investing in renewable energy generation, particularly solar energy, to achieve the objective of rural electrification and climate mitigation.

the functioning of Sagar Dweep Rural Electricity Cooperative and have focused on three beneficiary committees within the cooperative.

Map 4.2: Location of Fieldwork in West Bengal



Distributed generation and rural electrification in the Sundarbans is significantly different from the micro-privatisation in Orissa. It is a stand-alone system of electricity delivery separated from the state grid, small in size and owned by the users. In the Sundarbans, local government is involved in the rural electricity cooperative; all the elected representatives are members of the cooperative by design. However, local government is not involved in micro-privatisation in Orissa. In the case of the Sundarbans, local people were involved in building a system for electricity delivery and in managing it, whereas in Orissa, people were involved in improving the efficiency of an existing system. The presence of a guiding body (WBREDA) that provides sustained technical support is an advantage of this model. It is expected that these factors will contribute to a higher level of users' participation and better outcomes for the model.

Political culture in West Bengal is also significantly different from Orissa. West Bengal is one of the oldest states in India, with greater political engagement, and where the politics of accommodation for lower class groups has tended to work more effectively. Political representation of the lower castes

and classes has been higher compared to other states, as class affiliations have been effectively exerted within the context of Communist party allegiance. It has led to political mobilisation of a wide alliance of the poor and intermediate castes (Echeverri-Gent, 1992). The origin of grassroots democracy in West Bengal lies in late nineteenth century colonial India, when the British-Indian government introduced village self-government through several pieces of legislation, for example, the 1882 Ripon Resolutions, the 1885 Bengal Local Self-Government Act, and the 1919 Bengal Village Self-Government Act (Bhattacharyya, 2007). Thus, the state has a rich experience of decentralised governance and grassroots participation. The local government system was reorganised in 1978 to advance participatory rural development in the state. Since then, the Communist Party-run government's commitment to decentralised development accompanied by substantial devolution has resulted in strong grassroots mobilisation in the state. The state has been successful in creating all institutions of local government, including the Gram Sabhas, and has ensured their effective operation. Most of the rural development projects are characterised by substantial devolution and have been implemented by the Panchayati Raj institutions. This has resulted in a relatively high level of political awareness and activism in rural West Bengal (Bardhan, Unpublished). The political environment in the state is expected to facilitate users' participation in electricity delivery and produce better outcomes. The differences between the political culture and institutional settings in West Bengal and Orissa are expected to be reflected in the outcomes of users' participation in electricity delivery.

Both the case studies taken up for this study are atypical cases that represent innovation in electricity supply system. Though users' participation and decentralised governance of public service delivery was strongly advocated by international development organisation, particularly in late 1990s and early 2000s, the idea did not find many takers within the electricity sector. Yet again, Orissa was the first state to adopt the model. Inability of newly privatised utilities (deprived of any form of state subvention) to recover

the cost of supply and even maintain the supply system in the rural areas required devolution and governance innovations. On the other hand, Sundarbans being a geographically disconnected area was not easily connectible to the electric grid. It was perceived to be suitable for community managed off-grid electrification system. After initial success of both the cases, few other states pursued the model for rural electricity supply.

However, these other cases had limited experience, partial decentralisation and limited consumer participation at the time of this field research. To better understand the political, economic and social dimensions, I chose to take cases with maximum experience. Moreover, prior experience of conducting research in both the states was a motivating factor. While Orissa had three functioning electric franchisees, the particular franchisee was chosen because it was most accessible and agreed to cooperate.[37] Utility served area was deliberately chosen close to the franchisee area so that the fieldwork can be completed in the limited available time. It also helped to makes a good analysis of how presence of a decentralised franchisee affects service quality in same utility served area with similar political, economic and social context. In Sundarbans, Sagar Dweep Electric Cooperative was chosen because it is the only existing cooperative. However, the particular villages were selected randomly, with only consideration of accessibility (in terms of transportation and accommodation).

Though both the models have been abandoned (not pursued further) over time, especially after this study was initiated, the study aims to demonstrate what could be achieved through these models. Here, the goal is not to claim what is typical in decentralised electricity supply systems, rather I aim to show the outcomes of existing Indian models and make a case why they may be scaled up.

[37] During initial telephonic conversation, the other two franchisees did not agree to cooperate for the study.

Table: 4.1 Decentralised and Participatory Electricity Service Delivery: A Three Layered Institutional Structure

	Orissa I Franchisee Served	Orissa II Utility Served	West Bengal Cooperative Served
Central Agency	Utility (Western Electricity Supply Company of Orissa Ltd.)	Utility (Western Electricity Supply Company of Orissa Ltd.)	West Bengal Renewable Energy Development Agency
Decentralisation	Franchise/Micro-Entrepreneur (Sri Sai Laxmi Enterprises Ltd.)	---	Cooperative (Sagar Dweep Rural Electric Cooperative)
Participation	Village Electricity Committees (Lahanda, Jugipali, Hirlipali)	Village Electricity Committees (Sahara Tikra, Lachida, Katabaga)	Beneficiary Committees (Mrityunjay Nagar, Kamalpur, Koilapada)

The two cases of decentralised and participatory electricity delivery taken up in the study represent a three-layered institutional structure. The bottom layer of the institutions, electricity users' associations, is established to ensure users participation in service delivery. The middle layer of institutions represents decentralisation in service delivery and was established to bring the service provider closer to the service users. The study aims to find out how far creation of these two layers of institutions has improved electricity service delivery. The study also includes a case from Orissa, where the bottom layer of institutions has been established without the presence of the middle layer of institutions. It enriches the analysis by finding out effectiveness of users' participation in service delivery without decentralisation of the service delivery mechanism. The key difference between the cases from Orissa and West Bengal is the Orissa model is a grid-based model, while the West Bengal model is an off-grid model. The objective of introducing decentralisation and participation in the Orissa case was to improve efficiency and effectiveness in an existing system of electricity delivery, while in the West Bengal case the objective was to build an efficient and effective electricity delivery system outside the grid.

The primary aim of the study is to find out how far these objectives are met.

4.5 Research Methods

The study primarily uses qualitative research methods for data collection. As the model of decentralisation and users' participation studied exist in rural areas, the interviewees would not answer straight forward questions due to lack of receptiveness. Studying rural societies or any process based in rural societies requires qualitative methods of data collection. Qualitative methods are more relevant when the study involves understanding and analysis of behavioural change, local activities and events. Qualitative methods were helpful in gaining confidence and receptiveness of the interviewees. This section provides an overview of the different methods used for data collection, justification and the order of their use.

Empirical data was collected in four steps. The cases under study had not been previously researched, so there was no existing database of statistical information and geographical spread of decentralised participatory electricity delivery model. To select samples for observation, I had to collect basic information on the participatory model employed in the areas studied. The purpose of the first step was collection of such information, sample selection and preparation of a note on the origin and organisation of the model. My first point of contact was the people who were engaged in designing and implementing the model. I then conducted semi-structured interviews with guiding bodies, service providers in the region, and local officials. In this phase, I also analysed the available relevant government documents and annual reports to understand the history of the model in India. As these two models have been implemented at a very small scale, the number of people engaged in designing and implementing are very few. I have tried and successfully interviewed all of them during the fieldwork.

In the second step, I focused on individual semi-structured in-depth interviews with participants (or users), committee heads, guiding bodies and service providers to examine how they perceive the benefits of the model and to

get individual viewpoints. I also visited the departments concerned to obtain statistical data on the efficiency indicators. The third step was intended for cross-verification of the collected information. It included further interviewing of the same people and focus group meetings. As expected, many people did not open up in individual meetings, as they had never been interviewed before or asked questions on the electricity service. The focus group meetings provided a platform for these people to share their experiences and allowed me to observe the developments in their group capacity. The fourth step involved in-meeting observations and personal contacts with local people, which was done from the beginning of field work, to record the skills of participants, working of the committees and changes in individual capacity. I also visited almost every household using the electricity service in the company of service providers in order to observe the interaction between service providers and users. I spent seven months in the field: five months in Orissa and two months in West Bengal. Over the period, I have consulted 283 electricity users and 29 staffs of electricity provider in Orissa, 127 electricity users and 11 staffs of service provider in the Sundarbans, and four persons engaged in design of the decentralised participatory model of electricity delivery.

Here my objective was to cover all the users within the selected villages. However, I was able to cover about half of the users, as others were not available and few users I have met did not have anything to say. However, socio-economic background was not considered for selecting interviewees for two reasons. First, electricity users' associations are male arenas- do not have any female member. So, gender was not a consideration. Second, villages in eastern India are usually inhabited by same (or close caste) members; there was no strong caste differentiation within the villages. Village-wise breakdown of interviewees is presented in the table 2.2. I have interviewed all the electricity staffs directly responsible for these villages. For better accessibility and observation, I have stayed within some of the study villages for the entire duration of fieldwork. In Orissa, I have stayed in Lahanda and Katabaga, and in West Bengal I have stayed in Koilapada. Apart from informal group discussions, I

have organised two focus groups in each of the villages studied. I have also attended one meeting of each of the users' associations.

Table 4.2: Number of Interviewees (Village-Wise)

Orissa I Franchisee Served		Orissa II Utility Served		West Bengal Cooperative Served	
Lahanda	62	Sahara Tikra	66	Kamalpur	50
Jugipali	43	Lachida	34	Koilapada	39
Hirlipali	47	Katabaga	31	Mrityunjay Nagar	38

The most important tool for data collection in this study was in-depth interviews with all stakeholders. This type of interview is often unstructured or semi- structured and therefore permits the interviewer to encourage an informant to talk at length about the topic of interest. Even though it is one of the most common qualitative methods, the reason for choosing the method is specific. First, as suggested earlier, the rural people lack receptiveness; asking them structured question would not fetch much information. Secondly, the study aims to unfold the process (of electricity service delivery) the way users perceive it. The questions asked were meant to explain the reasons underlying the problem or practice. The method of data collection works well partly because the respondents often find it flattering to discuss their ideas and experiences. However, a list of important issues was prepared to discuss with the interviewees (See Table 4.3).

Table 4.3: Important Issues Discussed with the Interviewees

Service Users	Service Providers
○ Electricity Theft ○ Prevalence of theft ○ Social Opposition to theft ○ Utility action ○ End-use Efficiency ○ Use of CFL ○ Demand–side management ○ Revenue Realisation ○ Metering ○ Billing ○ Collection frequency and procedure ○ Technical Loss ○ Maintenance of lines and transformer	○ Electricity Theft ○ Prevalence of theft ○ Social Opposition to theft ○ Disciplinary action ○ End-use Efficiency ○ Use of CFL ○ Demand–side management ○ Revenue Realisation ○ Metering ○ Billing ○ Collection frequency and procedure ○ Improvement in revenue ○ Technical Loss ○ Maintenance of lines and transformer ○ Quality of Supply

○ Quality of Supply ○ Load shedding ○ Breakdown ○ Voltage fluctuation ○ Transparency & Corruption ○ Awareness of cost & benefits ○ Bribe and other associated costs ○ Accountability & Quality of Service ○ Accessibility of service provider ○ Complaint redressal ○ Response to problems ○ Access to Service ○ Getting new connection ○ Rise in new consumers	○ Load shedding ○ Breakdown ○ Voltage fluctuation ○ Transparency & Corruption ○ Information on cost & benefits ○ Communication with consumers ○ Bribe ○ Accountability & Quality of Service ○ Accessibility to consumers ○ Complaint redressal ○ Response to problems ○ Access to Service ○ Getting new connection ○ Demand for new connection

Second important tool for data collection was participant observation. It is a widely used method in many social science disciplines, particularly when the study involves examination of a social problem or social process. The primary aim of using the method is to gain a close and intimate familiarity with the electricity users and their practices through an intensive involvement with them in their natural environment. The observation could be used in two ways- structured and unstructured. As my research project falls into the interpretivist paradigm, I chose to use unstructured observation. Unstructured observation is very useful in understanding and interpreting cultural and social behaviour. Observers using unstructured methods usually enter 'the field' with no predetermined notions as to the discrete behaviours that they might observe.

In this study, I have used observation as a tool to understand operations of users groups and interaction between the users and service providers. To achieve the objective I have followed three steps. First, I have attended at least one meeting of each of the user groups, without any active participation, to understand how groups operate, what kind of things are discussed and how they reach at a decision. Second, I have travelled to each user household with the revenue collectors to see how people react to the bills, how they interact with the revenue collector and what kind of clarifications they seek. Finally, I have visited service provider offices on several occasions, during the period of

field work, to understand how they respond to consumer complaints. This has helped to me to gather first-hand information on operation of user groups and interaction between users and service providers.

The third key method used for data collection was focus group discussion. Focus group discussion is a tool for asking a group of people about their perceptions, opinions, beliefs and attitudes towards a product, service, concept or idea. In this study, the respondents were asked about their perceptions, opinions, beliefs and attitudes towards electricity service delivery process. The questions were asked in an interactive group setting where participants were free to talk with and comment on the views of other group members.

I have used focus groups to note community perception on electricity service provision and to understand if people share these views with their community members. For this study, I have conducted two focus group discussions in each of the villages studied. For that purpose, I would divide each village into two geographical blocks and call all the people interviewed from each block for a group discussion. In usual case, I had a turn up of around 50 per cent of invited people; Thus, I had focus groups of around 10-15 members. I encouraged them to discuss about their perceptions and beliefs around electricity service. I also sought reaction of group members on each of the opinion raised. This helped me to notice where the community members have agreement or disagreement. At the same time, I got answer to some questions, which were not answered in individual interviews.

Along with these methods of data collection, documentary analysis is used as a source of data collection. Most of the documents used in this study were primary sources, which include several policy documents, records of the utility, franchisee or cooperative and users' associations. The registers maintained by the users associations were most useful in identifying the involvement of users.

In any research involving qualitative methods of data collection,

particularly observation, there are several concerns regarding access, informed consent or deception and field notes. Access was not problem in both the cases. Due to my past research experience in electricity service delivery, I have access to a network of people engaged in the sector, especially the people engaged in the policy making and management of electricity service. Being a native of Orissa, I have knowledge of the language, cultural and social context not only in Orissa but also in neighbouring West Bengal. This proved an asset in accessing respondents. Moreover, I made efforts to be part of their social life by living with them. This has helped to bring out an insider view. All the respondents were informed about the purpose of the study. All the information collected is used anonymously without using the name of individual respondents.

A major challenge in data collection was taking field notes. After a few initial interviews, it was realised that rural people are not comfortable to speak when notes are taken in front of them, though they did not object to it directly. They did not speak openly, if I tried to write their response. To make them comfortable and speak openly, I therefore avoided taking notes while interviewing. Notes were instead written up after each interview.

Though most of the respondents were happy and excited to discuss and answer questions regarding electricity service, there were a few who questioned the outcome and benefit of the research. As one of them put it, "what would be the benefit of this research for us? You will earn money and get PhD. But what do we get?" (Author interview). This raises a much larger question on the significance of social science research. How do social science researches benefit the society? Probably, the best answer would be that social research shapes or feeds into policy-making. In that case, there is a need for better links between social research and policy-making.

4.6 Limitations of the Study

Considering reliability of a research is important for evaluating its worth. The 'trustworthiness' of any research depends on 'what counts as knowledge' (Lincon and Guba, 1985). My research aims to produce both applied knowledge

and process knowledge. Applied knowledge is context-specific, useful for solution of practical problems, while process knowledge is usually specified in terms of models. The study aims to find solutions for a practical problem of how best to provide electricity access in rural India by looking at a specific model of electricity service delivery, i.e. decentralised participatory electricity delivery. In the process of producing knowledge, like many qualitative studies, the current research has certain limitations. It is worth mentioning these caveats to facilitate evaluation of the research. The caveats of the research are first addressed by discussing the purpose of the research, then discussing the limitations of data and analysis, and the validity of the analysis.

The purpose of the research is to analyse the potentials of decentralised participatory model of electricity delivery in the Indian rural context. The key question is whether decentralisation and users' participation address the problems in conventional (centralised) model of electricity delivery. However, the study does not aim to produce universal laws or meta-theories. Rather, it aims to suggest middle-range theories on how decentralisation and users' participation can affect or improve efficiency and effectiveness in service delivery within specific context. It does not suggest generalisation of the findings. "The trouble with generalizations is that they don't apply to particulars" (Lincon and Guba, 1985: 110). So, the study aims to make recommendations, based on the findings, for improving the model of service delivery and scaling up the model across regions and sectors.

This caution about making generalisations comes from the data source and analysis. The study to achieve its purpose focuses on data from two cases of decentralised participatory electricity delivery in Eastern India. The cases were selected primarily on the basis of ease of access. Though a few cases of decentralised participatory electricity delivery exist across India, the particular cases were selected for several reasons. First, these two cases are the oldest having existed for almost a decade. Secondly, the cases are located in Eastern India, where I grew up; so I have the knowledge of social context and language,

which is an asset for qualitative research. Thirdly, the two cases represent a good variation of on grid and off grid electricity delivery.

Though the study has two case studies and makes a comparison between them, there is a greater focus on Orissa. Out of seven months spent in fieldwork, five months were spent in Orissa and two months in the Sundarbans in West Bengal. As fieldwork was conducted first in Orissa, it took longer, particularly to shape the methodology and questions based on initial findings. At the same time, Orissa took longer because of the focus on six VECs (three with a decentralised service provider and three directly served by the utility), while in the Sundarbans only three beneficiary committees were studied. As a consequence, I have more evidence from Orissa than Sundarbans. Moreover, because I have spent a substantial part of my life in Orissa, I have direct experience of conventional electricity delivery and social and cultural life in Orissa. I have at some points drawn on these experiences in the analysis. This has enabled me to make better comparison with the new model of service delivery and identify the benefits or improvements in the new model. As a result, Orissa is presented as my primary case with the Sundarbans providing an additional case.

My ethnic identity of being a native of the region has been useful for accessibility. I was able to integrate with the local people easily and adopt their way of life. Knowledge of both the languages was another asset for me. I believe people were open to me while discussing about their experiences. A mix of various qualitative research tools and better accessibility to local people, I consider, I have come out with original insights from the field.

In the analysis part I concentrate on presenting and emphasising the positive outcomes of decentralisation and users' participation. The study does not aim to make a scientific assessment of the decentralised participatory model of electricity delivery. Rather it aims to identify the potentials of the model in Indian rural context, based on the experience in the two cases. So, the study tends to highlight the positive outcomes of decentralisation and users'

participation in electricity delivery. However, it also identifies the explanation for such positive outcomes and the potential areas for improvement within the model of service delivery.

The analytic cycle for this research has moved between conceptual framework, case study analysis, and being clear as to the purpose of the research. Although a clear purpose of the research is required preferably before constructing a methodology, such purposes are not always clear based on the complexity of the processes to be studied, uncertainty about data availability, and personal observation over time. Such an analytic cycle often raises concern about the validity of findings and analysis. The concern is more valid when the research involves observations as a method of data collection, which has the fear of highlighting particular incidents while ignoring others. Validity of findings and analysis is important in any research paradigm. However, the concept of validity cannot be used in the interpretivist paradigm the way it is used in the positivist paradigm. Reliability and validity are conceptualized as trustworthiness, rigor and quality in qualitative research. The purpose of trustworthiness in qualitative research is to eliminate bias and increase the researcher's truthfulness of a proposition about some social phenomenon (Denzin, 1978) through various validity procedures. To address these concerns, the current research has used multiple strategies. First, the research has used various data sources (interviews, focus group, observations, and documentary analysis) for triangulation to achieve an agreement on one data source with another. Triangulation is defined to be "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell and Miller, 2000: 126). Secondly, the research has relied on 'disconfirming evidence' procedure to avoid negative information. In some cases, repeated interview and focus group discussion has been used as a tool to check validity of preliminary findings. Third validity procedure used in the study is 'researcher reflexivity'. I have self-disclosed my assumptions, beliefs and biases which I have acquired through my experience of living in the field during the fieldwork and prior to it. Finally, the study

provides rich and thick description of the cases (cf. Creswell and Miller, 2000).

Chapter 5

Decentralisation and Users' Participation

In Pursuit of Efficient Electricity Provision in India

5.1 Introduction

With the failure of state run utilities and market-oriented reforms to deliver electricity to half of the population, the future of electricity service delivery- particularly to the poor- has become an issue of contention in India. The contention is so intense that, in recent years, we are experiencing a major shift in policy paradigm for electricity service delivery. Keeping with the global debate, the shift seeks to democratise governance of the delivery mechanism through decentralisation and users' participation. The quest has been improving efficiency and effectiveness of electricity service delivery, so that the remaining half of the Indian population can get access to electricity service, at an affordable cost, and to the level required for ensuring secure and adequate livelihoods. The current and following chapter aims to assess the potentials of the new governance paradigm in achieving the objectives. How far the current paradigm, which relies on the users and their democratic capabilities, is capable of bringing in efficiency and effectiveness in electricity provision- something the state and the market failed to achieve.

In this chapter, I question the normative claims around efficiency gain in democratised governance of service delivery drawing on experiences of participatory and decentralised electricity distribution in parts of Eastern India. The cases under study represent some level of decentralisation and users' participation in electricity delivery with the objective of efficiency enhancement. In case of Orissa, decentralisation and participation was introduced to squeeze efficiency out of an incompetent electricity delivery

mechanism, while in Sundarbans (West Bengal) it was used to build an efficient delivery mechanism. By analysing the outcomes in both the cases, the chapter concludes that decentralisation and users' participation have potential to improve operational efficiency in electricity delivery system. The emerging model of service delivery can efficiently address the problems in conventional service delivery mechanism, especially for electricity provision in rural areas. The chapter is organised as follows. Section 5.2 contextualises efficiency gain in electricity service delivery and identifies indicators of performance in Indian context. Following five sections (Section 5.3 – 5.7) analyse performance improvement under individual indicators. The conclusion provides a comparative review of the findings and specifies methods and approaches by which the model could be made more efficient and improve quality of electricity provision in rural India.

5.2 Efficiency in Electricity Provision: What does it mean?

The literature on public service delivery is full of ideas and innovation for efficiency gain. Efficiency enhancement in public service delivery, more specifically in electricity provision, is an objective that has been chased under various regimes with varied results. There is, however, lack of clarity on what is meant by efficiency in public service delivery and more particularly in electricity provision. The concept of efficiency has usually been used with a narrow meaning- the ability to undertake an activity at the minimum cost possible. Various stakeholders demonstrate different, alternative understanding of and solutions for a single problem; thus, there cannot be a single standard of efficiency. Shubik (1978: 121) points out four broad viewpoints, with considerable overlapping, from which efficiency is judged: i) State (Administrators, bureaucrats and politicians), ii) physical scientists, iii) social scientists, and iv) the public. From one viewpoint it may be efficient to carry on with what appear to be inefficient activity from another viewpoint. The desired efficiency in public service delivery aims to accommodate all the four viewpoints. At the same time, efficiency has different but complementary

dimensions, e.g. productive, operative and allocative. The debate on efficiency in service provision is more focused on operative and allocative dimension; however, achieving operative and allocative efficiency would require productive efficiency and contribute to it. What constitutes efficiency, to a great extent, is determined by the specific context and strategic objectives of the sector. To identify the indicators of efficiency in electricity supply in India, we need to consider the context and the strategic objectives, the sector seeks to achieve.

Perceived inefficiency and ineffectiveness of public electricity provision in India opened the doors for market reforms in 1990s that have been driven by "the vision of increasing competition and choice" as the solution (Dubash and Singh 2005: 5249). The advocates of competition see it as a tool for efficiency enhancement and price reduction along with quality improvement. They argue that competition ensures operative as well as allocative efficiency in both the manufacturing and service sectors. They very often refer to the classical economic argument that sees competition as a process of rivalry between players in the market who compete by changing prices in response to the market conditions, thereby eliminating excessive profits and unsatisfied demand. However, global experiences suggest that the benefits of restructuring and competition in electricity supply are unevenly distributed where the large consumers have gained, often at the cost of small consumers (Newbery and Pollitt 1997; Thomas 2002; Dubash and Singh 2005).

Under the current state of Indian electricity, where half of the population do not have access to the service, the cost is unaffordable for many even though the price is subsidised, the loss is too high, and governance of the sector has hardly improved, it will not be easy and rational to introduce competition and provide choice to half of the population. At present, the challenge for India is not to design and establish a competitive electricity market, rather to have such an electricity market which is affordable and accessible to all, at the same time competitive and financially sustainable, distributes the costs and benefits evenly among the consumers and takes care

of the small consumers keeping with the social objective (Swain 2009). So the central objective for Indian electricity sector is to develop a governance structure that can address the prevailing problems and inefficiencies, improve the service provision for existing customers and extend the service to other half of the population. At the same time, with increasing concern over climate change, the electricity sector is under pressure to go clean. The *National Action Plan on Climate Change* has set eight national missions to tackle the challenges of climate change; the first two of these missions- national solar mission and national mission for enhanced energy efficiency- stress the need to make electricity provision cleaner and emission free through increased solar power generation and energy efficiency (GoI 2008). It sets another objective for Indian electricity sector- to bring in energy efficiency and improve demand side management.

In this chapter, I aim to assess the potential of democratised governance and participatory micro-institutions in meeting these objectives. Can decentralisation and users' participation address the existing problems in Indian electricity and improve service provision? Can it contribute to making electricity provision less emitting? Drawing on the present context of Indian electricity supply industry and its strategic objectives, there is a need for better performance in following areas to improve electricity service delivery in India: i) reduction in theft, ii) improvement in end-use efficiency, iii) improvement in revenue realisation, iv) loss reduction, and v) improvement in quality of supply (See Chapter 3 for detail discussion of historical context). Improvement in performance in these areas would improve operational efficiency of the service delivery system. By doing so, it will not only bring in improvements in electricity provision- better quality of supply and service expansion- but also will contribute to make electricity provision less emitting. The following sections assess improvements in these areas in the selected cases. The assessment of these indicators is primarily based on qualitative observations and interpretations (a stand justified in Chapter 4).

5.3 Reduction in Theft

Electricity theft has almost been a way of life in India. Of late, it has been realised that theft is a bane for the electricity supply industry as it contributes to high loss in the business. While the fact that distribution losses are high in India is well known, the magnitude of losses being incurred in LT (low transmission) supply (e.g. 64.5 per cent in Orissa[38]) is a revelation. Theft at the end of supply chain constitutes a large portion of this loss. It has been possible through an informal nexus between interest groups (e.g. rural elites and farmers), utility employees and local politicians (Katiyar 2005; Swain 2006). The problem lies in rampant corruption and vested electoral interest in turning a blind eye towards the issue (Gregory 2006), which cannot be addressed effectively through pure technical approach (Katiyar 2005). It requires institutional reforms or innovations that can represent public interest breaking through the nexus. Persistent practice of theft points out absence or failure of monitoring mechanism and poor consumer values. It underlies the mindset (predominantly in rural areas) that public provisioning of services (like public health service and education) is free of cost to users; a mind-set that has been promoted by local politicians over years.[39] Consumer education and awareness is essential to bring

[38] Information collected from the utility field office, by the author.

[39] What makes the mind-set wrong is the nature of electricity service and the way it is used. As an input service electricity is used to get access to other basic services and luxuries. The amount of consumption varies among the users- while the rich consumes more of the service with access to more end-use equipment, the poor consume less amount. Making electricity service free as a right, which would require state subvention cutting resources from other basic services, would be an irrational and anti-poor measure. It would benefit the rich (high-end users) and harm the poor by cutting their share of public resources and degrading quality of other service. There is a huge unresolved debate on whether electricity service should be treated as a right or as a commodity. From the political perspective it is treated as a right, while the economic perspective sees it as a commodity. The former seeks to provide electricity to all, to the level demanded, and at an affordable rate, which would require the utilities

in change in this mindset; something that is expected to be better achieved through participatory micro-institutions. In this section, I will analyse how far the electricity users' associations have been effective in promoting the awareness and education and physical check on theft.

Theft in electricity supply can take different forms: stealing through illegal connection or hooking; fraud or meter tampering; billing irregularities; and non- payment of bills (Smith 2004: 2067). This section focuses on the first three forms; non- payment is discussed in Section 6.5. While cases of theft (in terms of number) may be higher among the poor, the amount of unaccounted consumption is higher for the more affluent users. Existence of theft in electricity supply industry has a compounding impact on the users and on the poor more particularly. As the costs of unaccounted consumption is added to cost of supply, more unaccounted consumption leads to higher cost of supply. That makes electricity service unaffordable to the poor and forces them to steal. Lost earnings due to theft have also resulted in lack of funds for investment in system improvement and service expansion. On other hand, theft is hardly a free access to the service as it involves a significant cost- bribe to local utility staff.[40] Altogether these facts make electricity theft problematic throughout. Let us see how participatory micro-institutions (i.e. Electricity Users' Committees) help in addressing the problem- in reducing electricity theft. Firstly, these committees act as a forum, where the users, through participation and

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to charge below the cost to serve. The latter seeks to recover the full cost incurred in delivering the service (Rochlin 2002).

[40] Many of the users interviewed in Orissa were engaged in some form of electricity theft, prior to formation of the users' associations. They claimed to have paid regular bribe to utility staff to escape from legal action and to continue electricity access. They also claim that the utility staffs have encouraged them to indulge in electricity theft in exchange for bribe. An interview recalled, "First time I applied for a legal connection, it was turned down without any reason. Then I was offered an illegal connection by the local electrician for a price equal to the fixed rate [prevailing then]." (Author Interview)

discussion, gain awareness on the demerits of electricity theft. Information provided to these committees, usually by the service provider, is discussed in the meeting, where the users get chance to question the information and agree or disagree to it. This awareness leads to a consensus among the users that electricity theft is a 'social crime'[41] as it harms their community members. The information leading to awareness on impacts of electricity theft and then to consensus on prohibiting it is pooled out 'discursively' (cf. Goodin 2008: 95-106) in these committees. It makes the awareness and consensus more authoritative and binding, which every user member has to abide by. Secondly, these committees and their members act as watchdogs to keep a check on electricity theft. They not only check the illegal connections but also visit premises to check meter tampering. A committee member in Orissa claimed: "We have a general idea about electricity consumption of each household in our village. [The users associations keep a record of the consumption of each household.] When we find the electricity bill is lower than the expected consumption, that particular household becomes a suspect. In that case, we keep watch on them and check their electrical wiring and gadgets. We also organise checking of premises for all households in regular interval. These checking are done without any prior notice and at any time. This has created a fear among people. So they abstain from stealing electricity."[42] (Author

[41] Social crime is an act that challenges 'prevailing social order and its values' and often, it is not regarded as blameworthy neither by those commit it nor by the community they belong to (Scott and Marshal 2005). The regulations related to electricity theft have not been stringent in India. However, the Electricity Act 2003 tags it as a criminal offence. Special police stations and courts have been set up to deal with electricity theft cases. But the result is unsatisfactory (Hindu 2008). As long as theft is not considered an offence within the society or community, it will be hard to check it.

[42] It was also noticed that people have started using the word 'theft' for illegal use of electricity. When growing up in Orissa, I had observed that people never refer illegal consumption of electricity as 'theft' or 'stealing'. At best, they would refer it as

Interview)

Disciplinary action taken against electricity theft, however, varies from committee to committee. While some committees report to concerned authority, other committees penalise the guilty at village level, often through the support of traditional village committee or *gramsabha*. In the former case, the users argue that disciplinary action taken by utility is not stringent, thus does not prohibit further pilferage. When the committees deal with theft cases, they confiscate the electrical instruments used by the illegal user for hooking and impose a cash fine. In case of meter tampering, electricity supply is immediately disconnected and reconnection is provided only when the offender pays a cash fine and makes a commitment, to the committee, not to engage in fraud again. I have witnessed such a case in Orissa during my field work, where a user was caught bypassing the meter to use cooking heater. The concerned users' committee confiscated the cooking heater and wire and imposed a cash fine of Rs 500. The offender had to make a written declaration that he will not be involved in such activity in future. If he is found repeating the 'crime', he (and his family) will be deprived of not only electricity supply but also all other community facilities (Author observation, June 2008). It happens to be an effective and speedier judgement on such a case. The legal procedural arrangement involves various actors- the utility, local police and judiciary- making the judgement process slow and giving opportunity to the offender to escape from punishment by tampering evidence.

Billing irregularities, third category of theft, is done possible through the help of utility staff, usually the meter reader. In such cases, meter reading is deflated to reduce the bill. When such irregularities are noticed, accumulated surplus consumption is often blamed to faulty meters and the cost is waved off. To deal with such cases, the committees often send a member with the meter reader and maintain a register of meter reading for each consumer to check

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'hooking' or 'meter by-pass' (meaning meter tampering). This implies a change behaviour of electricity users.

manipulation by meter reader. However, due to unique nature of distribution arrangement[43] and lack of metering in Sundarbans, electricity theft involves more consumption than allotted electrical points and bypassing electricity to neighbours. The practice of hooking is non-existent in the area, as a check was provided from beginning with formation of beneficiary committees. When a case of fraud identified, beneficiary committee takes stringent actions against the culprit that involves suspension of supply for seven days and cash fine as decided by the committee.

All these measures taken by the users' committees have been successful in reducing theft. There has been a change in mindset towards electricity stealing. As the electricity users put it "stealing electricity is like stealing paddy from others' field. Those who engage in such activity degrade their status in the society and are considered ineligible for forging a [matrimonial] relationship" (Author interviews). In both the cases, 84 per cent of the users interviewed agreed that theft is one of the main reasons behind poor electricity provision. Local utility staffs acknowledge the rising consumer awareness against theft: "We get phone calls from people, even late in the evening, about their neighbours stealing electricity. In some cases, people have made repeated calls till our staffs have reached on the spot to catch the defaulter red-handed" (Author interview with Electrical Section Officer, Godbhaga Section). As a result, stealing through hooking has almost disappeared in Orissa case; six users' committees studied reported only nine cases of hooking during last two years. But there was not a single case of hooking in the three beneficiary committees studied in Sundarbans; it shows that involving people from the beginning increases awareness and helps in controlling theft. On the other hand, meter tampering is suspected to exist in few cases in Orissa, particularly when the user has some electrical knowledge. Committees could not identify

[43] As the amount of electricity produced and distributed in Sundarbans is limited in quantity, the users are not supplied up to the level of their demand. They are supplied electricity with limited electrical points and fixed tariff.

these cases due to lack of technical expertise. Billing irregularities have also been checked through keeping track of meter reading.

Interviewees, particularly in Orissa, noted some past instances of resistance to users' associations' action in theft cases. At the same time, they claim that these resistances have been overruled gradually with support of traditional village committees and local political representatives. It seems the users' associations have been supported by the traditional village committees (*Gram Sabhas*). In addition, punishment for electricity theft have been often clubbed with prohibition of access to other community services, which has created a fear.

5.4 Improvement in End-Use Efficiency

The benefits of end-use efficiency in electricity service have traditionally been underestimated by the energy policy makers and planner, across the globe (Jochem 2000). Keeping with the global practice, conventional Indian planners have focused solely on supply side option to increase production. Demand-side option like end-use efficiency, that requires more efficient use of final energy though conservation and demand side management, is hardly considered. It underlies the belief that developing countries should not conserve energy as their consumption levels are already low (PEG and Kalpavriksh 2007). Nevertheless, with the mounting global concern for climate change and resulting pressure from international community to keep carbon emission low in India, the state has shown some concern in recent years by enacting the Energy Conservation Act 2001 and establishing the Bureau of Energy Efficiency. The Bureau aims to "'institutionalize' energy efficiency services, enable delivery mechanisms in the country and provide leadership to energy efficiency in all sectors of the country."[44] The subsequent initiatives, however, have focused on technological innovations and large scale planning. While technology is

[44] Bureau of Energy Efficiency website, http://www.bee-india.nic.in/ accessed on 17 May 2009.

necessary to bring in end-use efficiency, there is an equally important need of delivering the technology to the end users and make them aware about end-use efficiency. That would require institutional innovations. Can the participatory micro-institutions play any significant role in meeting the need?

End-use efficiency could be one of the solutions to growing electricity crisis in India. By conserving electricity, it can not only reduce the need for capacity addition and reduce potential carbon emission, but also help in expanding the service.[45] At the same time, it will contribute to better quality of service- reducing load shedding and voltage fluctuation through increasing availability. It will also have economic benefits for the users by reducing the bill. In India, about 40 per cent of the electricity consumed in domestic sector goes to meet lighting needs; of which 80 per cent could be saved through use of compact fluorescent bulbs (CFLs). Considering higher cost of CFLs, compared to incandescent bulbs, the economic potential of this efficiency measure is estimated up to 70 per cent (Jochem 2000). However, the major obstacles to end-use efficiency in developing countries has been lack of knowledge, lack of awareness of potential benefits, subsidised prices promoting over consumption, desire to minimise initial cost through purchasing inefficient equipment and lack of effective energy efficiency policy (for a detail list of obstacles see Jochem 2000).

Though there is a sluggish progress towards end-use efficiency at macro level, the users' committees have taken some commendable steps contributing to end-use efficiency. While there is hardly any awareness among people about larger benefits of energy efficiency, they have realised that over consumption of

[45] The IRP (Integrated Resource Planning) study conducted in Karnataka reported that end-use efficiency can reduce the need for generation capacity addition by 50 percent of the amount proposed by official conventional plan. In another case, *Akshay Prakash Yajana*, a load management scheme implemented in 4,611 villages in Maharashtra has reduced the peak demand by 960 MW. A new 960 MW power plant, to meet the peak demand, would have cost Rs 30 billion (PEG and Kalpavriksh 2007).

electricity leads to poor quality of service and inflated bill. Again this awareness is gained through discursive pooling of information within the users' committees, making it binding on all the users. 74 per cent of the users interviewed in Orissa agreed that over consumption leads to high load on distribution transformers and thus, to low voltage during peak hours and frequent transformer burnout. On the other hand, 79 per cent of the users interviewed in Sundarbans agreed that over consumption is a cause of less hour of supply. In response, they have taken three steps: promoted use of CFLs; mandated ethical use of electricity (ban of cooking heater); and peak time load management.

Sundarbans has been projected as a pioneering case of clean electricity generation and conservation. Though the primary objective of establishing solar photovoltaic power plants was to find an alternative source of electricity for a region geographically disconnected from the grid, it has emerged as a model of clean electricity generation. At the same time, the objective to distribute limited electricity among maximum number of households has pushed them to adopt end-use efficiency. From the beginning West-Bengal Renewable Energy Development Authority (WBREDA) with the help of rural electric cooperatives has been promoting energy efficient electrical equipments. As a result the load for average household remains between 100 – 200 W, while the minimum calculated load for domestic consumers in grid connected area (including Orissa) is one kW. Considering the fact that most of the electricity consumption is made for lighting, users in Sundarbans are supplied with CFLs at the time of taking new connection. Moreover WBREDA and the cooperative have made efforts to encourage use of other energy efficient products like low consuming fans and televisions. The meetings of beneficiary committees are used as a platform for sharing this information, where the users have deliberated on the issue to reach on the consensus that "using energy efficient products would increase the duration of supply by reducing consumption. That is what [longer duration of supply] every user wants" (Author interview with Panchayat Samiti representative in Sagardweep Rural Energy Development Cooperative Society).

Over time, however, there is change in pattern of light use as the supplied CFLs have died after few years of use. While encouraged by beneficiary committees many of the users have continued with CFLs, a few users have started using incandescent bulbs due to higher cost of CFLs.

In Orissa, the utility has not made any such effort to deliver the message to end users, particularly in rural area. Yet the users' committees have made some successful efforts in introducing CFL with the objective to reduce the load on distribution transformer and cut the bill by reducing consumption. As a result, around half of the households in the six villages studied use CFL. The next two measures are taken particularly in the Orissa case. Use of cooking heater has been completely banned again with the objective to reduce the load on distribution transformer. After formation of users' committees, users were asked to surrender their cooking heaters. Later on if heater is found in the premise, it is confiscated and cash fine, ranging between Rs 200 to Rs 500, is imposed. While prohibition of theft has made heater use unaffordable, strict vigilance of users' committee makes it impracticable. Finally, the users' committees have also played a significant role in demand-side management-load reduction during peak hours. The user members are advised not to use heavy consuming equipments and switch off unnecessary equipments during evening hour. While the objective is to get better voltage and protect transformer from burn out, it has contributed to energy conservation. All together these three measures have also contributed to better quality of supply (see Section 6.7).

5.5 Increase in Revenue Realisation

While a large portion of electricity supplied is consumed unaccounted, a significant portion of the accounted consumption is not paid for. These unpaid consumptions reflect low collection efficiency of utilities. In case of Orissa, utilities had a collection efficiency of 82.62 per cent for LT supply, in 2007-08. The figure was lower (78 per cent) for the utility serving in the study area (OERC 2008), which could be further low in rural areas. It has contributed

to financial crisis in the utilities by escalating commercial losses. There are several reasons for this low collection efficiency: lack of willingness to pay; local politicians' encouragement of non-payment and protection from legal action; illegal consumption by non-users encourages non-payment by legal users; and in the absence of proper metering, inflated minimum bill[46] coupled with past arrear becomes exorbitant. While the first three reasons are behavioural in nature, the last one is technical and managerial in nature. In the absence of proper communication between the service provider and users, misinformation and rumours can also lead to non- payment affecting revenue realisation. The micro-institutions are expected to bring in behavioural change through deliberation, help the utilities in technical and managerial improvement and serve as a forum for information dissemination.

The technical factors behind low collection efficiency were addressed first, when the decentralised participatory model was introduced in Orissa. Metering was mandated for all the existing consumers as well as new consumers. Although there was some opposition in the beginning, it was manipulated through deliberation in users' committees. The high end consumers wanted to maintain the load based minimum bill, as their consumption level was higher, and motivated others to oppose metering. The users' committees played an important role by resolving the issue in their meeting. The initial meetings were attended by utility staff and reform consultants who provided technical information, especially a rough estimate of monthly bill based on the kind and number of equipments used and duration of use. "Before the village [electricity] committee was formed and these meetings were held, there was a rumour that metering is a strategy to increase bill and extract more money from users. People were suspicious of metering drive and

[46] Unmetered consumers are charged with a minimum bill of Rs 270 per month for 1 kWh load. This amount is much more than what most of the rural households consume and can afford. Most of the old rural consumers fall victim of this arrangement as they were not metered.

opposed it. But when it became clear that metering will help to monitor consumption and reduce monthly bill, people demanded for meter installation" (Author interview with President, Lahanda Village Electricity Users' Committee). The economic effect of this measure was lucrative and became immediately evident through almost 50 per cent reduction in monthly bill for most of the consumers. However, the consumers still had accumulated arrears, due to non-payment, irregular collection and inflated bill, which were too high for utilities to wave off and for consumers to pay. As a solution, the consumers were given choice to pay the arrear at one go with substantial (ranging up to 50 per cent) discount or to pay the amount in instalments (at least 10 per cent of it every year). While some people could pay it at one go, many are paying it in instalments. Those who could clear the arrear were further benefited by rebate on monthly bill when paid regularly on time.[47]

When the technical problems regarding payment were addressed, it promoted behavioural change. Change in users' attitude towards payment of electricity bills is facilitated by users' committees through motivating and mandating regular payment. It is evident in the slogan of one of the users' committees, which says "*Bina bijulire au chaliheba nahin; Bina paisare bijuli jaliheba nahin*" (It is impossible to live without electricity; it is impossible to use electricity without paying for it). Many users claimed that attending the users' committee meetings have educated them about the cost of electricity service. This awareness was noticeable in their opinion when they said: "...for our children electricity is as important as food. Like food electricity has a price... The price needs to be paid regularly to get regular supply and good voltage... We cannot blame the company [utility] for power cut and low voltage, if we do not pay the bill" (Informal focus group discussion with Katabaga Village Electricity Committee). The users' committee made it mandatory for all the users to pay their bill on time; the defaulters were not only disconnected from

[47] If electricity full bill is paid on time, the user is entitled to get a rebate at the rate of Rs 0.10 per unit of electricity consumed.

electricity service but also threatened to deprive from community facilities. Those who could not pay on time are asked to provide explanation in the meeting and seek extension. As many of the rural households do not have monthly income, it is not possible for them to pay the bills on monthly basis. In that case, the users' committee provides guarantee for the consumer and the period of guarantee (up to six months) is decided by the committee. When the committee realises that a consumer is trying to cheat, it recommends disconnection. During initial years, committee members used to visit every household with the bill collectors to ensure everybody pays their bill.

The users committees have also shown potential in addressing information asymmetry that may misguide the users. For example, central government policy to wave off agricultural loans in 2008 spread a rumour in Orissa that government is going to wave off electricity bills. Some local politicians tried to encash it in the forthcoming elections by making false promises to wave off electricity bills if they come to power. Influenced by the false promises and rumours, some users stopped paying the monthly bill. To deal with the situation, some users committees have contacted the utility staff to get the right information, shared the information with users and appealed the users to continue to pay their bills regularly.

With regard to billing and collection, there is difference in approach and thus in performance between the franchisee served area and utility served area within Orissa. The first set of villages, with a local provider as franchisee, has shown more efficiency than the second set of villages served by the utility directly. In the first case, meter reading, billing and collection is done every month. Franchisee has two collection dates for each village, when the revenue collectors visit. If a consumer misses the first date, he can pay on the second date and continue to get rebate. In the second case, meter reading, billing and collection is done bi-monthly, partly due to lack of adequate staff in the utility and partly due to inefficiency of existing staff. Revenue collectors visit the villages once in two months. If a consumer misses the date, his arrear is

accumulated. It affects the poorest consumers, the daily wage labourers, who would be comfortable to pay less money more frequently (here monthly than bi-monthly). As a result revenue collection efficiency is higher in the franchisee served area than utility served area. Godbhaga electrical section coming under service coverage of franchisee has recorded highest collection efficiency within the utility for past four years. Nevertheless, in both the cases collection efficiency remains higher than utility's average collection efficiency due to better awareness. In 2007-08, the utility served and franchisee served villages had a collection efficiency of 88 per cent and 95 per cent respectively, while the average collection efficiency of the utility was 78 per cent.[48]

However, non-payment and related issues are not a problem in Sundarbans. Firstly, there is no technical problem as there is no metering and users are charged a fixed amount on the basis of number of electricity points. Secondly, the amount of bill is decided by the beneficiary committees, based on hours of supply. Thirdly, the behavioural problems also do not exist as the beneficiary committees have been there from the beginning and have promoted regular payment. Involvement of local government in the process and entrusting the responsibility to collect revenue has worked out well. It has resulted in hundred per cent collection efficiency.[49]

5.6 Reduction in Technical Loss

High loss in Indian electricity sector is not only a bane of the sector but also a source of overall infrastructure deficit. Even after efforts over past one and half

[48] Calculated by the author on the basis of information collected from utility local office record and franchisee record on revenue collection.

[49] Information collected from cooperative record book and validated by the revenue Collector.

decades to reduce it, the aggregate technical and commercial (AT&C) loss[50] in sector remains more than 35 per cent in 2006-07, which is worth Rs 274 billion (PFC 2008). The figure is worse for Orissa with 40.25 per cent overall AT&C loss and 64.50 per cent in LT supply, during 2007-08 (OERC 2008). As the Prime Minister puts it, "No civilised society nor a functional commercial entity could sustain losses on such a scale."[51] AT&C loss has two components: technical loss occurred due to widespread and ill-maintained distribution network; and commercial loss due to rampant theft and low bill recovery. Although these two components are not calculated separately, it is believed that the technical part remains more than the standard figure for a strong power system.[52] It keeps open the scope for technical loss reduction. Having discussed, in earlier sections, the measures taken by users' committees for commercial loss reduction, this section will focus on the steps taken to reduce technical loss.

Even though the users' committees are not formally shared with the responsibility, they have taken several steps that reduce technical losses in electricity supply. Firstly, they look after maintenance of LT transmission lines in their locality. Due to lack of sufficient human resource and their inefficiency, utilities have not been able to take proper care of transmission lines. In response, the users' committees have come forward; they regularly do

[50] AT&C losses represent the difference between electricity available for sale and electricity realised. Electricity realised is the electricity billed factored by the collection efficiency.

[51] Addressing to a meeting on infrastructure, convened by planning commission in October 2006, Prime Minister Dr Manmohan Singh argued that high transmission and distribution loss is the source of power crisis and it is partly contributing to infrastructure deficit (Srinivasan 2006).

[52] UNESCAP (1990) argues that the standard technical loss of a strong power system is 8.75 percent, while medium and weak power systems have a loss of 12.63 percent and 16.50 percent respectively.

maintenance work, under guidance of utility staff, including cutting of tree and branches where it touches transmission wire, putting separator between wires and putting stay for poles. The level of maintenance, however, varies between franchise served areas and utility served areas. In the franchisee served villages maintenance is done twice a year, while in utility served areas it is done once a year. This is primary because of the initiative of franchisee to keep the distribution network in good health and availability of additional manpower in form of franchisee staff. Involvement of users' committee makes it easier to access private property: cutting of private trees, using private property to put poles and stays, and taking wire over private premise. A local electrician states that "when there were no electricity committees, it used to be difficult to convince people and access private property, particularly when the property owner was a non-consumer. Earlier we have diverted the line in many cases, increasing expenditure, when such situation arises. But now the committee settles these issues. They take permission from the property owner" (Author interview). The users committee makes use of the social relations to convince property owners to allow access for collective good of the village. In worst cases, when the property owner does not agree, the matter is put into the meeting of traditional village committee and the concerned person is threatened to be deprived of community services in case noncompliance. Secondly, committees also take care of distribution transformers serving them. It includes changing oil, taking care of fuse and lightening arrester, and cleaning weeds around transformer. Finally, the committees in Orissa, in recent years, have been funding small maintenance works. Due to the financial crisis in utilities and lack of subventions from the government, there is a funding crisis for maintenance work. To meet with the situation, the users' committees have been funding purchase of small equipment (like fuse wires, sockets and lightning arresters) and sometimes, they also hire private electricians to do the maintenance as utility electricians are not usually available. Major part of the fund for maintenance works is collected from the user members and rest of it comes through fines from defaulters and contribution from commercial and small

industrial electricity consumers in the village. However, the motivation behind these measures has been protection of the local distribution network and getting better quality of supply. But this has resulted in reduction of technical loss and transformer burnout. Although there is no data for technical loss reduction, records of local utility office and users' committees confirm that there was not a single case of transformer burnout in the six villages since 2002.

In case of Sundarbans, maintenance of the plant and distribution network has been outsourced to a local agency hired by the cooperative. Yet the beneficiary committees and the cooperative staff help in regular maintenance of the distribution network and getting access to private property in the similar manner. As the beneficiary committee was formed from the beginning, distribution network has been planned in consultation with the users. Due to proper maintenance and revenue realisation, funding for maintenance work is not problem in Sundarbans.

5.7 Improvement in Quality of Supply

Quality of supply is another indicator of efficiency in electricity supply industry. Quality of supply as perceived by the users will be increasingly important to the success of utilities. It has two components: continuity of supply and reasonable voltage level. Supply interruptions, affecting continuity, is very common in India. It could occur due to planned outage for load shedding or maintenance work, or due to unexpected breakdown because of malfunctioning of distribution equipments, physical damage to distribution equipments or overload on the distribution network. Efficiency of the utility could be measured through analysing type, number and duration of supply interruptions in a given period of time. On the other hand, the source of low voltage problem is growing demand and overloading of distribution network. Poor planning and bad maintenance has contributed to it. When electricity is supplied at a less voltage than the prescribed voltage (i.e. 240 Volt and 50 Hz for LT supply), it indicates poor quality of supply. It leads to lower efficiency and reduction in life of electrical appliances. Rural consumers are given low priority when it comes

to quality of supply due to low revenue realisation in rural areas, weak political muscle of rural consumers and lack of sensitivity to their issues (PEG 2008).

Electricity users' committees not only address the causes of poor quality of supply, but also generate a strong demand and enter into bargains for better supply, and sensitise the issue of poor service. The measures taken by these committees, as discussed in the previous sections, have a great impact on improving quality of supply. While maintenance of distribution network and reduction of peak load reduces the chances of breakdowns, increased revenue realisation makes the utility attentive towards users' interest. On the other hand, these committees provide a platform for the rural users to air their voice, unitedly and strongly. They have entered into a bargain with utility where better quality of supply is assured in return of regular payment and cooperation in maintenance and protection of distribution network. This commitment has been acknowledged in the recognition letter of users' committees issued by the utility.

The results, drawn on the basis of testimonials from users and discussion with utility staffs, show commendable improvements in quality of supply, in terms of continuity in supply and reasonable voltage level. In Orissa, 83 per cent of the users interviewed argued that there is significant improvement in quality of supply. In recent years, no planned load shedding has been done, partly due to better availability of power and partly because of loss reduction. However, there have been limited interruptions for maintenance and several cases of breakdown. In case of franchisee served villages in Orissa, there are less than ten cases of breakdown in a month, while it is around 25 in case of utility served villages. While the average duration of breakdowns is around 30 minutes in the first case, it is around one hour in the second case.[53] It has been noticed

[53] Breakdowns from the grid are attended immediately in both cases. But breakdowns due to problem in the distribution network take time depending on the distance of breakdown location from utility office and time of breakdown. In case of franchisee

that, in case of overload, utility staffs prioritise the villages served by franchisee due to higher revenue realisation from the area, more demand and pressure from the franchisee. On the other hand, there has been no voltage fluctuation in the study area over recent years. The findings from Orissa illustrate commendable quality of supply when compared to status of rural electricity supply in much developed states like Maharashtra where the consumers face up to 14 hour of power-cut everyday (PEG 2008).

In the case of Sundarbans, there are no similar issues. Being standalone systems with fixed number of consumers as well as fixed load and limited hours of supply, there is no variation in quality of service. The measures taken by beneficiary committees towards maintenance of distribution network have contributed to it. According to a senior WBREDA staff, "success of the rural electricity cooperatives lies in users' participation, contribution and sense of ownership. It is their efforts, management and our [WBREDA's] guidance that has sustained the system" (Author interview with Assistant Director, WBREDA). However, there is a growing demand for expansion of the service in terms of duration and coverage of supply. 64 per cent of users interviewed in Sundarbans asserted that they will pay more for extended hour of supply. In response to this demand and willingness to pay for it, in recent years, private players have expressed interest in setting up renewable power generation plants in Sundarbans for service expansion.

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served villages, breakdowns are attended within 12 hours, while in case of utility served villages it takes up to 24 hours.

Table 5.1: Efficiency Gain Across Cases				
Inefficiencies	**Problems**	**Orissa (Franchisee)** Franchisee & Users' Committee	**Orissa (Utility)** Users' Committee	**Sundarbans (Cooperative)** Cooperative & Beneficiary Committee
Electricity Theft	Hooking (Taping from open transmission wire)	Hooking has completely stopped	Hooking has completely stopped	Not a problem
	Meter tampering	Few cases	Few cases	Not Applicable
	Billing irregularities	Completely checked	Completely checked	Not a Problem
Lack of End-Use Efficiency	No use of energy efficient products	Use of CFL in around 50% households	Use of CFL in around 50% households	Use of CFL in 80% cases and other energy efficient products
	No load management	Yes, during evening	Yes, during evening	Not applicable
Low Revenue Realisation	Lack of willingness to pay/ non-payment	Increased willingness	Increased willingness	The problem did not exist
	Irregular collection	Monthly collection	Bi-monthly collection	Monthly collection
	Low collection efficiency	95 % collection efficiency	88% collection efficiency	100% collection efficiency
High Technical loss	Lack of proper maintenance	Users, franchisee and utility staff collaborate for regular maintenance	Users and utility staff collaborate for maintenance	Maintenance has been outsourced
	Lack of manpower	Private electricians hired	Private electricians hired	
	Lack of funds for maintenance	Users partly fund maintenance	Users partly fund maintenance	Not a problem
				Not a problem
Poor Quality of Supply	Regular load shedding	No load shedding	No load shedding	Not applicable
	Frequent breakdowns	Ten cases/month (Average duration 30 min)	25 cases/month (Average duration one hour)	Not applicable
	Low voltage	Does not exist	Does not exist	Not a problem

5.8 Conclusion

The findings suggest that putting people at the centre of service delivery can work; it has potential to improve the operative efficiency in service delivery mechanism. Decentralised participatory model of electricity delivery embodies institutionalised coproduction where the users contribute to service improvement. It emerges as one of the best solutions to problems in conventional electricity delivery mechanism, particularly in rural areas. The participatory micro-institutions also have potential of contributing to climate change mitigation through promoting energy efficiency and demand-side management. They can play a key role in implementation of India's integrated energy policy. While these micro-institutions can efficiently manage an electricity service delivery mechanism on their own, they can also be embedded into existing electricity delivery systems for efficiency gain.

Participation in the micro-institutions makes better consumers out of electricity users by creating awareness about electricity theft and its impacts, cost of service and payment necessity, end-use efficiency and energy conservation. This awareness is generated through discursive pooling of information in face to face interaction, which each participant has agreed upon. That makes the awareness authoritative and binding. Participation brings in behavioural change among the users: the users see electricity theft as offensive, affecting their social status; they gain willingness to pay for electricity service and pay on time. Participation also provides the opportunity to the users to be co-producer of the service by contributing their time, skill and ideas to check unaccounted consumption, practice end-use efficiency, conserve electricity, maintenance of distribution network.

By doing so, users' participation has, to a great extent, addressed the major problems in Indian electricity supply industry and contributed to efficiency gain in electricity service delivery. It has checked electricity theft, promoted end-use efficiency, increased revenue realisation, reduced technical loss and in consequence, improved quality of supply. However, there is

variation in performance across cases (see Table 5.1). In case of Sundarbans, most of the problems do not exist as users participation was introduced from the beginning and participation is institutionalised well. In case of Orissa, both the franchisee served villages and utility served villages have performed equally where efficiency gain is due to the contribution of users. But where efficiency gain requires service provider's contribution, franchisee served villages have performed better than utility served villages. It shows presence of decentralised or local service provider contributes to better maintenance of distribution network, better collection of revenues, better quality of supply and better accountability to users (accountability issue is discussed in detail in the following chapter). Sundarbans experience demonstrates that introducing users' participation from the beginning can facilitate building an efficient service delivery mechanism and prevent the typical problems in electricity supply. Orissa experience suggests that introducing users' participation in an existing service delivery mechanism can produce substantial efficiency gain.

However, there is still scope and opportunity for electricity service improvement. The biggest opportunity for Indian electricity supply industry lies in promoting energy efficiency that can reconcile national need for electricity supply expansion and tackling climate change. Though the users' committees have started the initiative at micro level, there is a need for more intense efforts at the macro level. The first step should be promoting energy efficient products. For example, replacing incandescent bulbs with CFLs can produce real benefits; replacing one incandescent bulb with a CFL saves 1,000 Kw electricity during lifetime of the CFL and saves 70 kgs of carbon emission per year. More recently, Indian government has planned to subsidise the cost of CFLS as the first step under National Action Plan on Climate Change. The *Bachat Lamp Yojana* (lamp saving scheme) aims to distribute CFLs at a reduced price of Rs 15 (equal to the cost of an incandescent bulb)(IANS 2009). The state and utilities should also subsidise other energy efficiency products to promote its use. Energy efficiency is a win-win situation for the state, utilities and users. The users benefit from low monthly bill through reduced consumption; utilities

gain from saved electricity, which can be used to expand service coverage; and the state gains by reducing potential carbon emission. The participatory micro institutions can play a significant role in it.

In case of Orissa, a major problem is lack of technical manpower. Owing to the financial crisis, utilities are not increasing their manpower while consumer base has been increasing. At present, each electrician is serving 4-6 villages. It affects maintenance work as well as delays response to breakdowns. Though the users have provided manpower support, they lack technical expertise. It requires the utilities to increase their technical manpower to match the consumer base. Secondly, there is an urgent need of funds for maintenance. Lack of funds has hampered maintenance work, which has put the distribution network in danger. Although the users have been funding purchase of small equipments to meet minimum requirements, it puts extra burden on them, particularly on the poor users. Moreover, the users will not be able to sponsor major costs. If proper maintenance is not done regularly, the distribution network may collapse and require large investment in future. At the same time, there is a need to invest in tamper proof metering to stop fraud. In case of Sundarbans, more investment is required in power generation to meet the demand and extend the service to other areas. Finally, the participatory micro-institutions and their members do not have access to adequate information on policy issues and its relevance for them; it requires information sharing from utilities and the state. These institutions can serve as single point information dissemination centre for their members on various emerging issues. These measure need to be taken for sustainability and further efficiency gain.

Chapter 6

Decentralisation and Users' Participation

Assessing Effectiveness Gain in Electricity Service Delivery

6.1 Introduction

State provision of electricity service in India has been ineffective in reaching to the poor; as a result, half of the population (predominantly poor) still do not have access to the service even after six decades of efforts and public spending. The failure has been blamed to 'long route' of accountability between the service users and providers- "clients [users] as citizens influencing policymakers, and policy makers influencing providers" (World Bank 2003: 6). The emerging service delivery system not only lack accountability between the service provider and users, but also is non-transparent and corrupt, where the providers are inaccessible to users, equity of access is challenged and quality of service remains poor. Weaknesses in the long route of accountability can be addressed and service delivery can be improved, as proposed, "by strengthening the short route- by increasing the client's power over providers" (World Bank 2003: 6). One of the ways it can be done is by bringing the service provider closer to the users (decentralisation) and involving the users in service delivery process (users' participation). The chapter aims to assess effectiveness of decentralisation and users' participation in electricity service delivery, drawing on experiences in Eastern India.

The chapter seeks to find how far decentralisation and users' participation has contributed to effective electricity provision, to achievement of desired outcomes- provision of electricity service for all, to the desired level and at an affordable cost. The two cases under study- Micro-privatisation in Orissa and Cooperatives in Sundarbans- represent some level of decentralisation

through franchisee and cooperative and participation through users' committees with the objective to make the service delivery process effective. In case of Orissa, decentralisation and participation was introduced to make an existing failing delivery system effective, while in Sundarbans the objective was to build an effective delivery system. Analysis of experience in both the cases would useful in drawing lesson for existing electricity delivery systems as well as for new electricity delivery systems planned and thus, can guide electrification programmes in general. Based on the findings, the chapter ascertains the potentials of decentralisation and users' participation in electricity provision. It concludes that decentralisation and users' participation in electricity delivery has potential to make the delivery system effective, given that there is support and cooperation from the top, decentralisation of power and resources match with the responsibilities and users' participation is valued. The chapter is organised as follows. Section 6.2 contextualises the concept of effectiveness in electricity delivery and identifies indicators of effectiveness in Indian context drawing on the existing problems and desired outcomes of the sector. Following four sections (Section 6.3 – 6.6) analyse performance improvement under individual indicators. The concluding section provides a comparative review of the findings and specifies methods and approaches by which the model of decentralised governance could be more effective in electricity provision and produce real gains for the poor.

6.2 Effectiveness in Electricity Provision: What does it mean?

Though the literature on public service delivery is full of debates over effectiveness in service provision, there is less clarity on what effectiveness means. The concept of effectiveness has been used with various meaning at different context for evaluation of service delivery systems. In case of electricity service, it has often been used from quantitative perspective, where effectiveness of service delivery is judged from macro statistics.[54] At the same

[54] For example, effectiveness of electrification programmes in India were frequently judged with the number of villages connected, rather than considering number of

time, effectiveness has repeatedly been used simultaneously with and as a synonym of efficiency. Efficiency gain in service delivery does not necessarily mean effective service provision. While efficiency gain refers to improvements in capability to deliver, effectiveness refers to the accuracy and completeness with which service is delivered. The concept of effectiveness emphasises more on the output than input. Effectiveness lies in producing desired outcomes; it depends on the objectives set and realised. An effective service delivery system may be inefficient; and an activity considered inefficient may lead to effectiveness in service delivery. For example, subsidised electricity provision remains a requirement for effectiveness of electrification programmes- to make the service affordable to poor, even though it is considered as a major reason for inefficiency of Indian electricity supply industry.

A service provision is considered effective when service users are satisfied with the service and service has resulted in beneficial outcomes for the service users. To understand effectiveness of electricity service in general, we need to understand how it is used and what beneficial outcomes it produces for the electricity users. However, the study does not seek to assess effectiveness of electricity service.[55] Rather it aims to analyse effectiveness of a particular model of electricity service delivery, based on decentralisation and users' participation, in achieving the desired objectives and allocative efficiency. Allocative efficiency is achieved when the value placed by users on the service, reflected in the price they can afford and are willing to pay, equals cost of supply. The set of desired objectives, however, will vary according to specific

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households electrified, sustainability of programme and satisfaction of users (Swain 2006).

[55] Unfortunately, Indian electricity sector has given less emphasis on effectiveness in electricity use; rather it has focused on effectiveness in electricity delivery. However, effectiveness in electricity use can bring in effectiveness in electricity delivery as beneficial outcomes from electricity use will generate demand for the service (See conclusion).

context.

In case of Indian electricity, the objective is not just efficient service delivery, but a socialist goal set by the constitution makers of India that is echoed in current global debate around equitable development. The goal for Indian electricity sector has been providing universal access to electricity, as a right, at affordable rate, and at least, to the level essential for secure and adequate livelihoods as well as dignified life (Swain 2006). Efficiency gain of utilities is, of course, required to achieve the goal and is a step towards it, but it does not imply improvement in effectiveness of electricity provision. In the larger debate on public service delivery, however, both efficiency and effectiveness are complementary and share one desired goal- improvement in service delivery. In practice, effectiveness must imply a degree of efficiency to ensure sustainability. Having discussed the micro-institutional innovations and their potentials and contributions for efficiency gain in electricity delivery, in this chapter I will focus on their contributions to effectiveness in electricity provision.

While conventional planning has focused on economic roots of electricity crisis in India, a major part of the problem is governance related. Governance of the sector has failed due to inadequacy and breakdown of accountability and transparency mechanisms and lack of public participation, resulting in an ineffective electricity delivery mechanism that has failed the poor. The situation calls for 'adequate, effective and mandatory provisions' for ensuring direct accountability between the users and providers, transparency and public participation in governance (Dixit et al. 2001). The institutional arrangement under study is a response to the need, although it is limited to few cases in the absence of a national strategy. The question arises, how far these institutional innovations are capable of improving effectiveness of the delivery process. Improved effectiveness will be reflected in increased transparency and reduced corruption, ease of access to service providers, improved quality of supply, and equity of access and value for money. The following sections analyse the improvements in these areas that represent an

effective electricity service provision.

6.3 Transparency and Reduction in Corruption

A major source of failure in state provision of electricity in India is lack of public control over delivery system that has arisen from inadequacy and breakdown of mechanisms for ensuring transparency and accountability. Decentralisation and users' participation in service delivery process, as proposed, is expected to restore the mechanisms for ensuring transparency and accountability. In this section, I analyse the impact of decentralisation and users' participation on transparency in electricity delivery process and how it has contributed to effectiveness of electricity service provision. In the absence of transparency, corruption has emerged as a chronic problem in electricity provision challenging effectiveness of the service delivery. It is practised at various levels through informal nexus between politicians, bureaucrats, utility staff and muscular user groups. At macro level, corruption has taken form of patronage in human resource management, location of generation plant and distribution network, while at micro level it has often taken the form of bribe.[56] Considering the micro nature of institutional innovation for decentralisation and users' participation as well as limited coverage, I analyse its contribution to improvements in transparency and reduction in corruption at micro level.

Participation in the electricity users' committees not only informs the users about effective and efficient use of the service, but also informs them about metering, billing, load shedding and breakdown. That makes the users aware about their rights and functioning of the delivery system, which enable the users to demand for better service. Users' committee meetings also discuss individual experiences in dealing with service provider to inform others and set strategy to deal with service provider collectively as well as individually. This

[56] Bribe is a transactional form of corruption where money changes hands in anticipation of favours or favours already rendered. In case of electricity service delivery, favour means access to the service (both legally and illegally), continuation of service, privilege over others or manipulation in cost calculation for the service.

information accumulation enables the users to collectively bargain with the service provider for better service. An assertive user claimed, “We the customers are paying the full cost [monthly bill] regularly. So we have right to get continuous supply. We have fought for and will fight for continuous supply. Now we know they [service provider] are doing load shedding to supply more power to companies [industrial consumers]. We will not pay our bills if they do load shedding” (Author interview). However, the utility has done very little to share information with the users’ committees. Though the utility staffs have provided some information during initial months, later they have become suspicious about the users’ committees and have shown reluctance in sharing information. In fact, lately they have perceived the users’ committees as a threat to their (undue) status and earning. On contrary, the villages served by franchisee claim that franchisee staffs are accessible for information when required. The owner-manager of the franchisee claims “sharing information with people helps in gaining their support. If you explain the reason behind breakdown, people will understand and accept it. But if you do not respond them, they will shout at you and will not pay their bill on time” (Author interview).

Due to lack of transparency the users have little knowledge of cost of service that has contributed to transaction of bribe for access to service. Transparency International has ranked electricity service as seventh most corrupt service (CMS 2008) and fourth most corrupt basic service in India (CMS 2005). The value of petty corruption in electricity service delivery is estimated to be as high as Rs 21.7 billion per annum. While average amount of bribe paid by urban households is Rs 841, rural households have paid Rs 1089 to gain access or continue access to electricity service (CMS 2005). In 2007, the below poverty line (BPL) households, mostly living in rural areas, have paid more than one billion rupees as bribe for electricity service (CMS 2005). It shows that rural poor consumers are worst affected by corruption. Although decentralised participatory model has not been able to eliminate corruption completely out of electricity supply industry, it has been successful in reducing it by bringing in

transparency in the process and generating consumer awareness against corruption. Improved transparency and awareness, gained through users' participation, has exposed the real cost of service. It has generated resistance among users towards paying bribe. It was observed that users now ask for receipt for their payment. Earlier utility staffs have siphoned up the revenue collected without receipt; as a consequence, the users' bill kept accumulating. Users were also noticed asking for explanation of their monthly bill and claiming rebate. In most cases, bill is paid by the female members as male members of family stay out for work. The first thing they ask for is a receipt before making payment; in many cases, they also ask for explanation on the bill- how much they have consumed, how much they are paying for current use, how much they are paying from the arrear and how much rebate they are getting. It was observed that the franchisee staffs better attend the situation by answering the queries compared to the utility staffs.[57] This is mainly because the utility staffs are overburdened- while two franchisee staffs spend two days for collection in two to three villages, two utility staffs spend one day for collection in five to six villages- and partly because of arrogance among utility staff due to their perceived higher status.

While in Orissa the actual cost of new connection with one kW load is Rs 382, the practical cost including bribe ranges up to Rs 3000. The average practical cost of new connection in franchisee served villages is Rs 850 (includes Rs 468 as bribe), while it is Rs 1150 (includes Rs 768 as bribe) in utility served villages.[58] However, the amount of bribe in both the cases is lower than national average bribe for getting a new connection, i.e. Rs 1171 (CMS 2005). On the other hand, the bribe charged, in the franchisee served villages for

[57] During my stay in field, I have travelled with revenue collectors to observe behaviour of users as well as revenue collectors.

[58] The amount of bribe presented here represents the mode value, what most of the users have paid in recent years. Some users' manage to pay less using their social status and relations, while some end up paying more to get faster response.

repairing is between Rs 50 to Rs 200, while in the utility served villages it is between Rs 100 to Rs 200. The amount of bribe is again lower, in both the cases, than national average for repairing, i.e. Rs 286 (CMS 2005).[59] Public awareness and consciousness, gained through participation, has not only resulted in reduction in intensity of bribing, but also it has contributed to change in the nature of bribing. As the users are no more willing to pay bribe, they are refraining from collusive or anticipatory bribing; the existing form of bribing is often extortionary, where the users are compelled to pay bribe for immediate response.

Sundarbans case again demonstrates that introducing decentralisation and users' participation from the beginning, at the stage of designing a service delivery mechanism, helps in preventing many of the problems including failure of transparency mechanism and corruption. WBREDA and the local cooperative have taken initiative to share information with the users; beneficiary committee meetings are regularly attended by cooperative staff and sometimes by WBREDA staff to disseminate information and answer any questions. As a result, the users have awareness on functioning and management of delivery systems. Cost of the service is calculated by the respective beneficiary committees with inputs from the cooperative and WBREDA; the beneficiary committee has the final say. So there is a high level of awareness on the price. That has resulted in prevention of corruption, something very common in conventional electricity delivery mechanism. According to a local user, "Bribing does not exist. I have never heard of anybody asking for more money...The committee decides the money. We all know the exact amount and we pay it every month at the power plant site. We have been told not to pay more than what we owe" (Author interview). Because the system is transparent and people are aware about cost of service, many people are willing to pay more for extended hour of supply. However, when people are asked about corruption and bribing, some

[59] However, the users opt for private electricians for repairing when it does not involve meter handling, as they find it cheaper and faster.

people referred to bribing and patronage in subsidy for purchase of individual solar home lighting systems. But subsidy for individual home lighting systems is not under management of the cooperative.

6.4 Improvement in Accountability

Holding the service provider accountable require that there is transparency- access to reliable and timely information. But that is not enough for effectiveness in service delivery; there is a need for accountability between the service provider and the users. There is a consensus that the mechanisms for accountability in electricity service delivery has failed; the consensus is more valid when the users are poor. Accountability in service delivery is best understood as a character of the relationship between service provider and service users. An accountable relationship is one where the service provider is obliged to account for and take responsibility for its actions, while the service users are able to hold the service provider to account. The conventional model of electricity delivery, where the bureaucrats responsible for service delivery are *responsive* to the users and *accountable* to the government, has failed to build such relationship between the service providers and users in most of the developing countries; and more so in India. The method has not only failed top-down accountability from the service provider to the users, but also it has failed the bottom- up accountability from the users to the service provider, as a consequence. Root of the problem lies in design of public institutions for service delivery in India and over politicisation of governance within the institutions. “Most of the [public] institutions and rules... are so riddled with perverse incentives structures that accountability is almost impossible” (Mehta 2003: pg.). Solution to the problem is sought in getting the provider closer to the users and involving the users in delivery process to establish ‘exit’ and ‘voice’ mechanisms (Paul 1992) based on marketisation and users’ coproduction, and to introduce ‘co-governance’ (Ackerman 2004), which involves users’ participation in core activities of service delivery. Recent experience suggests, exit mechanism, that requires market competition and choice for users, is hard

to establish in electricity service delivery and when established, it promotes the interest of better off users at the cost of poor users. However, institutional innovation for decentralisation and users' participation in electricity delivery is a step towards restoring 'voice' and 'co- governance' mechanism.

In the conventional model of electricity delivery, one of the problems for rural consumer is to get access of authorities, partly due to the physical distance and partly because of perceived status gap. While the geographic distance of electricity office[60] has been a barrier in accessing the utility staff, the perceived superior status of the utility staff makes it difficult for poor users to approach them. In the decentralised model, the service provider (franchisee/cooperative) being a smaller entity is physically closer to the users. The staffs of these bodies are more accessible physically as they are drawn from the villages served and users have an existing social relation with them. Moreover, the franchisee model in Orissa has a village contact person for each village who takes up complains from users along with reading meters and distributing bills. It allows the users to register complains in their village rather than going to electric office. According to CMS (2005) 55 per cent of rural users have visited respective electricity service department in last one year and 58 per cent of them have done so at least three times. In case of franchisee served villages in Orissa, the number of users' visiting local electricity office is insignificant and often, the frequency of visit is limited to one time. Those who have visited, most of the time have done so for their own fault- missing the payment date. But, the villages served by utility complain of requirement for

[60] Conventional electricity delivery systems are big; the local offices (electrical section office) serve up to twenty villages. The physical distance between the local office and farthest village ranges up to 25 kilometres. In the absence of proper transportation facility, travelling to and from the local office may take a full day, which means loss of one day's job and earning. Frequent visit to office is not affordable to many, particularly to the poorest who live on daily wage earning. Often users end up paying bribe to avoid repeated visit.

frequent visit to local office (see the following section for further discussion). In case of Sundarbans, the users hardly visit the cooperative for service requirements. However, they have to visit the plant site, which is in the same village or nearby village, every month to pay their bills.

While presence of a local service provider solves the problem of physical distance between the service provider and user, it also solves the problem of perceived status gap. The staffs of franchisee and cooperative are drawn from local villages served. In that, way they are not only physically close to the users, but also socially close. Pre-existing social relationship between the staff and users turns out to be a facilitator in day-to-day dealing. The users can relate to and argue with the local provider and its staff and thus hold them accountable. The staffs drawn from local villages are more approachable, accessible and answerable. They are also accommodative to local needs. For example, in the franchisee served villages in Orissa, the franchisee staffs change the time of bill collection to evening during farming season, so that, the users can do farming in the day time and pay their bills in the evening. It was observed that franchisee and its staff are more accountable compared to utility staff. For instance, during breakdowns, users try to call the respective service provider to enquire about the reason, status and expected duration. (Thanks to telecom revolution in India!) While the franchisee staffs respond to these queries, the utility staffs often disconnect their telephone in such situation.

Participation in the micro-institutions has improved the transparency, if not to the desired level, in service delivery process and made the users aware of their rights and responsibilities. This has contributed to enhancement of the capacity of rural users to express their voice, which is visible in the form of complaint, organised protest and active participation in discussion. The 'constructive' benefit of this voice lies in the "shaping of shared values through deliberation" (Goetz and Jenkins 2005: 7). It is not just a mechanism for holding the service provider accountable, but it enables the users to arrive collectively at the standards against which performance of the service provider will be

judged. Though participation through micro-institutions helps the voice of the poor to find its way back in, "but they are often left speaking into a void" (Ackerman 2004: 447). This is very much true in the cases studied. Participation has helped in generating a voice of the rural users, setting their preferences and standards. But this is never communicated to and heard by the decision-makers. It is, firstly, because the top authorities are, in reality, least interested in the preferences of the rural users. The Chief Executive Officer of the utility in Orissa claims "we are always interested to hear from people. We would change our strategy to accommodate their preferences." But when asked what has been done to accumulate the preference of people, there was no response (Author interview), neither any initiative for the purpose exists in practice.[61] Secondly, the utility staffs at the bottom level see the rising 'voice' as a threat to their undue status and income, and they want to curb the voice. In a division level staff meeting, a senior officer of the utility asserted that "these village committees are dangerous for our functioning. We need to break them" (Author participation). In summary, though decentralisation and participation has improved the upward accountability making the users accountable to the provider for their behaviour and consumption, downward accountability still remains to be improved. Though franchisee and cooperative are relatively more accountable to users, they hardly have any influence over decision making. However, local providers are perceived as responsive to local needs even though at small scale limited to their capability.

6.5 Improvement in Quality of Service

Poor quality of service is another problem that affects effectiveness in electricity

[61] The only opportunity for users to provide inputs and preferences and question the utility is the public hearings organised by the state Electricity Regulatory Commission. The rural users are neither aware of this opportunity nor it is practically possible for them to participate in these hearings because of the procedural barriers and physical distance of venue of the hearings. Establishment of a strong network of rural users may facilitate representation of their views in these hearings (See conclusion).

service delivery. Quality of service here indicates quality of various interactions between the users and the service provider, which includes regularity and accuracy in meter reading, billing and bill collection, attending faulty meter, and handling complaints. Considering the poor quality of service and associated economic cost (i.e. bribe to get better service), poor households tend to go for alternative energy sources. Poor quality of service, in the form of inattention, extortion and humiliation, is often the single reason for low access to the service among poor (PEG 2008). The problem has been worse in rural areas due to various reasons. First, delivering to rural consumers is relatively costlier while revenue realisation has been poor in rural areas. That has made electricity delivery in rural areas less attractive for utilities. Secondly, lack of transparency and failure of accountability mechanism has made quality of service in rural areas further vulnerable. Thirdly, rural consumers lack a strong voice and demand for better service. Finally, rural users have less access to service providers, which had compromised the quality of service by delaying response. Decentralisation and users' participation in electricity delivery has been, to a great extent, effective in addressing these issues. As we discussed in the last chapter, improved revenue collection has lead to recovery of cost of service, making delivery system financially sustainable. Highest collection efficiency in franchisee served villages in Orissa has gained attention of and response from the utility. Hundred per cent collection efficiency in Sundarbans has generated interest of private players in the model of electricity generation and distribution. Improvement in transparency and accountability has contributed to users' awareness and voice that has resulted in increased demand for better service. As discussed in the last section, presence of a local service provider has substantially improved access to authority, complaint mechanism and thus provider's response. These improvements are expected to result in improved consumer dealing, complain handling and users' satisfaction.

While quality of service has improved in all the cases studied with users assertion through participation, the level of improvement varies across cases. In case of Orissa, the quality of service is far better in the franchisee served villages

compared to utility served villages. Franchisee served villages have better regularity and accuracy in meter reading, billing and bill collection as meter reading and billing is done on monthly basis and bill is collected twice a month. But in utility served villages, meter reading, billing and bill collection is done, though regularly but less frequently, on bi-monthly basis. There is also improvement in complaint handling in franchisee service. It has been easier to complain through the franchisee and follow it up without visiting the office. The franchisee, in collaboration with the utility staff, organises a consumer camp every month on a fixed date where billing errors are rectified on the spot. But, this facility is not available in the other case in Orissa, where users have to make several visits to utility office to get the bill corrected. Till the bill is not corrected, the users are deprived of rebate. While all effort is made to prevent breakdown in franchisee served area, repairing is done within 12 hours, even in late evening and bad weather. On the other hand, same repairing work takes up to 24 hours in case of direct service by utility. In both the cases, faulty meters are replaced on the next working day conditional on new meters are available and the certain amount of bribe is paid. But the amount of bribe varies in the two cases; while in franchisee served villages the amount is fixed at Rs 50, in utility served villages it is between Rs 100 to Rs 200. When the complaint handling is a responsibility of the utility staff in both the cases, better service in franchisee served villages can be credited to proactive initiatives of the franchisee. The franchisee recognises its business and income can flourish when the users are satisfied with quality of service and thus, remains accountable to people. "The franchisee business and profit is dependent on loss reduction and maximum revenue realisation, which only can be achieved by satisfying the consumers. They will be satisfied when they get better service. If consumers do not get better service, my [franchisee's] business will be at risk" (Owner-Manager of the franchisee, Author interview). In contrast, similar sense of risk and ownership is missing among the utility staffs. The franchisee manages to get better service for users from the utility staff by offering them some incentives like buying meal or fuel for their vehicle, and

sometimes by threatening them to complain at the higher level, to which the franchisee has access. Responsiveness towards local needs and demands has enhanced in the model due to intervention of the franchisee and persistent demand from users. It is evident when the utility staffs take utmost care to prevent interruption in power supply during local functions and festivals. For example, during *Dussehra* festival, the utility had arranged for backup power supply in franchisee served villages from another grid to meet breakdown and both utility and franchisee staffs were on duty in the night. On the contrary, in the utility served villages the villagers had arranged for diesel generators to meet breakdown (Author observation). To arrange this special service, the franchisee has been using various tools. It offers some incentives (or a different form of bribe) to the utility staffs, which includes feasts and gifts during the festive season, so that they would put extra effort to ensure steady service. It also gets order from higher authority to use other grid resources to ensure the service. Being the highest revenue generator across the state for past few years, the franchisee has a good reputation in the sector, which makes it easier for him to get such orders. At the same time, it used the franchisee human resources to support the utility staff in maintaining the grid stability during period.

Users in utility served villages also complain of misbehaviour from the utility staff. In comparison, the franchisee staffs are friendly and the users have better satisfaction in dealing with them. A user in a franchisee served village explaining the difference between franchisee and utility staff behaviour said: “they [utility staff] are outsiders. They do not understand our needs and circumstances. They misbehave us as if they are doing charity to us. They never explain us. They used to come suddenly and ask for bill. They never informed us about the dates. We always do not have money. If we cannot pay, they scold us and disconnect the line. But these people [franchisee staff] are among us. They understand our needs and circumstances. Franchisee has fixed two dates for bill collection in our village. We keep the money ready for the fixed date” (Author interview). Difference in behaviour of utility staff and franchisee staff reveals failure of accountability mechanism. Though a Consumer Grievance

Redressal Forum has been established in recent years to deal with consumer complaint on such issues, rural users are not aware about its existence. This requires better arrangement for information sharing. However, most of the users agree that there is substantial improvement in quality of service over since users' committees were established. Sixty-four per cent of the users interviewed in Orissa claim that they are somehow satisfied with the quality of supply and service considering the money they pay for the service and the cost of alternative source of energy.

In case of Sundarbans, the quality of service is has been good and consistent from the beginning. Due to the off-grid nature of electricity delivery, much of the complexities in grid-based electricity supply are not present in Sundarbans. Billing and bill collection is done regularly on monthly basis. As the bill amount is fixed by the users, there is no problem of inaccuracy. Maintenance work of the plant and distribution network is done by a local private firm hired by the cooperative, who is directly accountable to the concerned beneficiary committee and the cooperative. On the other hand, cooperative staffs are drawn from the local government institutions and are from the local villages; thus they remain responsive to local needs. Presence and involvement of an effective local government system has facilitated better quality of service. As the users have been involved from the beginning, they are able to hold the cooperative staff and maintenance workers accountable. While the stipulated time limit for complaint handling is 48 hours, most of the complaints are addressed within 24 hours. Small size of distribution network has facilitated quick response. The system of service delivery is also responsive to local needs; duration of supply is increased during community functions. Overall, users are highly satisfied with the service rendered by the cooperative and the maintenance staff.

6.6 Equity of Access

Effectiveness of a service delivery mechanism also depends on its potential in ensuring equity of access- improved access for poor. The conventional model of service delivery has failed to reach the poor for two reasons: firstly, high initial cost of connection owing to lofty bribe is unaffordable to the poor (Bardhan and Mookherjee 2006); secondly, poor cannot go through the cumbersome procedure of application that requires submitting multitude of documents (PEG 2008). No serious effort has been made to connect the rural households; rural electrification programmes in India has been more targeted towards electrifying villages. This has resulted in electrification of only 44 per cent of the rural households, while more than 82 per cent of villages have been wired. In this context, can decentralised participatory approach promote household electrification? Its potential to reach poor households lies in reducing not only initial cost of connection, but also the monthly cost of supply. At the same time, it also needs to make the legal procedure of getting connection convenient for the poor.

Reduction in the level of bribing, as discussed earlier in the chapter, has substantially reduced the practical cost of new connection, making it affordable for more households. On the other side, proper metering by the utility and improvements in end-use efficiency by users has resulted in reduced monthly bill. At the same time, cost of alternatives to electricity, predominantly kerosene, has been increasing. This has made electricity service affordable and desirable for many poor households. The poor households get more productive hours and sense of satisfaction with access to electricity. A new user in Orissa points out the improvement narrating his personal experience: “electricity was always a need of life. Earlier it was too costly to get a connection; so we were using kerosene lamp for light. But now it is affordable...because my income has increased while the [practical] cost of connection has reduced... Paying the bill regularly every month is easier and affordable than paying irregularly. Monthly bill comes close to my one day’s

earning [He earns Rs 120 - 140 as a daily wage labourer]. I am happy to pay it as my family is happy with it" (Author Interview). Yet, there are some households who cannot afford at this rate; reaching to these people would require state intervention. The model has also substantially reduced the legal hassles in getting a new connection. For a new connection, an applicant needs to submit an identity proof, a resident proof, connection charge (with bribe) along with the application form. Most of the rural households do not have the first two documents ready. These two documents needs to be procured from local administrative offices and involves cumbersome process. While getting these documents costs up to Rs 250 (including bribe), the applicant has to make multiple visits to the administrative office. To get the poor applicants out of this cumbersome process, the applicants were asked to get a letter of recommendation from the concerned users' committee as an alternative of identity and residential proof. The recommendation letters served not only as proof of residence and identity, but also as a guarantee of applicant's capability to pay. The arrangement was put in place across the state, as part of the original micro-privatisation design, in the areas where village electricity committee was formed and registered with the utility. Though, the arrangement was quite effective during initial years, later on the utility staffs have stopped accepting the letter to challenge legitimacy of the users' committees. While asked about it, most of the utility staffs suggested that the arrangement made the users' committees powerful. As discussed earlier, the utility staffs see strong users' committees as a threat to their undue status. While the franchisee and the users would like to reinstate the arrangement, the utility staffs are not in favour of it, even when they do not have any valid explanation for avoiding it.

The cases from Orissa show a considerable improvement in household electrification. While the national average for rural household electrification 44 per cent, the franchisee served villages have achieved 71 per cent and the utility served villages have achieved 63 per cent household electrification. Though the study did not involve any systematic analysis of unelectrified households,

from discussion with community leaders and some of the unelectrified households it became evident that often marginal farmers or landless labourers do not have access to the service. Economic means and affordability is the major factor that deprives some household from getting access. Yet, few community members suggested that people are still afraid of the inflated bills that used to come earlier and the cumbersome process of getting a new connection. Moreover, the fact that electricity was never marketed in India, as mobile telephone service was marketed, there is limited awareness on how people can benefit from electricity service. Consequently, the demand for electricity access is low among the poorer households who have other competing priorities to meet with limited resources.

However, electricity provision in Sundarbans is a different case. Because of its off-grid nature and limited electricity generation, the rate of access in Sundarbans is limited. Three of the beneficiary committees studies together have achieved around 40 per cent household electrification, while many of the remaining households have individual home lighting systems. The cost of new connection and cost of supply has been low and affordable to many. There two category of connection for domestic consumers: first comes with three electrical points with a load of 100 W and the second has five electrical points with a load of 150 W. The costs of new connection for the two categories are Rs 500 and Rs 1000 respectively; the cost covers household wiring and supply of CFLs. Monthly cost of supply charged to users is Rs 75 for 100 W load and Rs 150 for 150 W load. Though the hour of supply is limited, the cost has been lower than the grid connected supply. As there is no bribe involved, the cost is affordable to many. The potential users are guided to form the beneficiary committee at the design stage of power plant. Once the plant is established those households are supplied electricity on priority. Depending on availability, any further connection is provided on the recommendation of beneficiary committee. Many of the well-off households go for individual home

lighting system[62], while the plant based supply remains affordable and accessible to the poor.

[62] In case of individual home lighting system, the user has to pay the cost of instruments, which is partially subsidised by the state for domestic users. But the user owns the system and is not accountable to anyone else. So they can user the electricity at their discretion. That makes it attractive to well-off households, who can afford to pay for it.

Table 6.1: Effectiveness Gain Across Cases				
Inefficiencies	**Problems**	**Orissa (Micro-Privatisation)** Franchisee & Users' Committee	**Orissa (Users' Participation)** Users' Committee	**Sundarbans (Cooperative)** Cooperative & Beneficiary Committee
Lack of Transparency and Corruption	Lack of information and awareness	Participation informs and educates the users Franchisee shares information	Participation informs and educates the users Utility is reluctant to share information	Participation informs and educates the users Cooperative and WBREDA share information
	Rampant corruption	Corruption has reduced	Corruption has reduced	No corruption
Lack of Accountability	Low access to provider	Franchise is more accessible	Utility remains less accessible	Cooperative is more accessible
	Lack of users voice	Shaping of shared values and standards through deliberation	Shaping of shared values and standards through deliberation	Shaping of shared values and standards through deliberation
Poor Quality of Service	Poor complaint handling	Easy to register and track complaint through franchisee	Complaint handling remains poor	Easy and fast complaint handling by cooperative
	Irregularity in billing and collection	Regularised (Frequency: Monthly)	Regularised (Frequency: Bi-monthly)	Regular billing and collection
	Low responsiveness of provider	Franchisee is responsive	Utility remains less responsive	Cooperative is responsive
Low Access to Service	High initial Cost	Reduced Initial Cost	Reduced initial cost	Low initial cost
	High cost of service	Reduction in monthly bills	Reduction in monthly bills	Users decide the bill
	Cumbersome procedure of application	Less paper work with recommendation from the users' committee	Less paper work with recommendation from the users' committee	Not applicable
	Low rate of household electrification (44%)	71% household electrification	63% household electrification	40% household electrification through cooperative[63]

[63] Further electrification is made through individual home lighting systems.

6.7 Conclusion

Decentralisation and users' participation in electricity service delivery certainly can bring in effectiveness in service delivery. As the case studies show it can bring in transparency in process of service delivery making the users aware of their rights and responsibilities. As a consequence, there is decline in level of corruption and change in nature of corruption. Deliberation in users' committees enhances the capacity of rural users to express their voice, shape shared user values and standards of performance to judge the service provider. As an outcome, it empowers the users to hold the provider accountable. At same time, presence of a local service provider with a sense of responsiveness and risk makes the delivery system more accountable to the users. Users' awareness gained through participation and increased transparency makes them upward accountable to the service provider. Increased transparency and accountability, in the presence of a local service provider, improves the quality of service. While transparency and accountability enables the users to demand and bargain for better service, local service provider remains more accessible to the rural users. At the same time, the local franchisee has been negotiating for the consumers it serves. For example, the franchisee in Orissa has a very good track record of revenue collection; for the past five years his sub-division has highest collection in Orissa. To maintain that collection rate, he has been negotiating with the utility to ensure regular electricity supply. This negotiation has been so effective that the utilities have provided backup arrangement of electricity supply during festival season (Author Observation). Altogether these improvements in electricity delivery have contributed to equity of access, reflected in increased access to service, making the service accessible to the poorer segment of society. Decentralisation and users participation in service delivery clearly emerges as a solution to the failures in conventional model of electricity delivery and a strategy for India's universal electrification drive. Orissa experience suggests that decentralisation and users' participation can make an existing failing system of service delivery effective, while Sundarbans case suggests introducing decentralisation and participation from the beginning,

at the design stage, can build an effective service delivery mechanism. While decentralised participatory model of service delivery mechanisms can work effectively on its own, it can be embedded into existing institutional arrangement to produce better effectiveness. While all the cases have shown commendable improvement in effectiveness in reaching to the poor, there is significant variation across cases (see Table 6.1). The major reason for this variation in the cases is presence or absence of a decentralised local provider. While users' awareness, voice and demand can be raised through participation, there is a need for responsive service provider to respond to users demand, provide better access and quality of service. The emerging lesson is decentralised local service providers are more effective that large service providers, be it state run or private owned. However, there is ample scope and opportunity in improving the decentralised participatory service delivery model to produce real gains for the poor and include remaining population in service coverage. Following paragraphs list some suggestion in that direction.

At first, there is a need for clarity on the functions and powers of institutions; who is responsible for what and what powers and resources are devolved to meet those responsibilities. In the absence of clarity, the micro-institutions are forced to perform certain functions for which they are not responsible and do not have resources. For example, users have been funding of maintenance work in Orissa, while it is responsibility of the utility; it puts extra financial burden on the poor users. Better clarity would help in planning devolution of power and resources to match with the responsibilities and make the system more accountable. As evident in the Sundarbans case, demarcation of functions and powers of the beneficiary committees, cooperative and WBREDA has been a major reason for proper functioning of the institutions and success of the model. The micro-institutions are given informal status in the service delivery chain, keeping them at a lower status to the utility. While the grievance redressal is inaccessible to the rural consumers, it becomes difficult for them to challenge noncompliance from utility staff. There is a need of recognising them as formal part of the delivery chain and devolving some

formal power and authority, so that they can hold the service provider accountable for their activity. At the same time there is a need for change in attitude of utility staffs towards the users, which could be done through directly involving them in the micro-institutions and by putting pressure from top to take the committees seriously. Another obstacle for effective functioning of the users' committees is lack of funds for operation that restricts them from interacting with the provider and organising meetings. Most of the users' committees collect a small amount from the members to meet the expenses, which could be provided by the utility as an honorarium towards their contribution.

The users lack adequate knowledge on policy issues and its relevance for them; it requires information sharing from utilities and the state in an accessible form. The micro-institutions can serve as information dissemination centre for their members on various issues of relevance. These institutions can be further strengthened by building a network of users' committees, which will serve as a guiding body and promote benchmarking competition among the institutions for effective functioning. In case of Sundarbans, the need for such a network and guiding body has been fulfilled by the WBREDA, which has contributed to effective functioning of the cooperative model. On other hand, a strong network of users' committees can build a political muscle for rural consumers representing their interest in policy arena. Such a network can represent the rural users' interest in technical events like public hearings organised by regulatory commissions.

Though these changes would further enhance effectiveness in electricity delivery, still there would be a group of extreme poor households who cannot afford the cost of service. Reaching to them requires special schemes with subsidised rate and funding from the state. The state have intermittently developed and implemented several schemes to reach the poorest households,

though without much success. *Kutir Jyoti*[64] (Hut Light), one of the central government schemes to connect BPL households at a subsidised rate has been abandoned by the private utilities in Orissa as the government is not funding for it. Restoration of the scheme will make electricity service accessible to many among the poorest. On the other hand, the commitment to connect the BPL households free of charge under *Rajiv Gandhi Grameen Vidyutikarana Yojana* (Rajiv Gandhi Village Electrification Scheme) is yet to be implemented. While these schemes have potential to reach the poorest, they need to be expedited. The micro institutions can play a potential role by identifying the beneficiaries. Finally, there is an urgent to need to widen the focus of rural electrification programmes to ensure effectiveness of electricity service. So far electrification programmes in India have focused on effectiveness of electricity delivery, reaching to maximum people. Making electricity service effective would require emphasis on productive use of the service, getting maximum benefit from electricity usage. More the benefits are realised by the users, more active will be the users' involvement in delivery process. That will make the delivery process more effective.

[64] Under Kutir Jyoti scheme, single point light connections are provided to the households of rural people below poverty line at the lifeline rate of Rs 30 per month.

Chapter 7

Participation as an End in Itself

Spillover Effects of Users' Participation in Electricity Delivery

7.1 Introduction

Though there is a growing consensus in academic and policy arena on desirability and importance of public participation, the advocates of public participation, varying on approaches and objectives, fall into two broad groups of developmentalists and democrats (See Chapter 2). The developmentalists view participation as a method to achieve institutional efficiency and developmental goals, while the democrats see participation furthering the goals of empowerment, equity and democratic governance (Puri, 2004: 2511). While the developmentalists promote public participation for functional motives, as a means of better service delivery, the democrats promote participation for empowering motives, as an *end-in-itself*. Given the current fascination, in academic and policy thinking, with people-centred solutions for social and economic problems and democratised governance, participation as an end in itself seems to dominate the debate, at least at the rhetorical level. It is evident in the fact that empowering effects are frequently set as explicit objectives of participatory initiatives.

In this chapter, I aim to analyse empirical validity of claims for participation as an end in itself, drawing on users' participation in electricity service delivery. In the preceding two chapters, I have discussed the developmental implications of users' participation in electricity delivery and contributions to efficiency and effectiveness gain in the service delivery. The main objective of promoting users' participation in public service delivery has been improvement of service delivery. However, as participatory democracy

suggests, participation in any organisation and in any sort of collective decision making is expected to have some educative spillover effects. These educative effects empower the participants and promote democracy in practice; that makes participation an end in itself. The underlying ideas are "people can and should govern themselves" (Pitkin and Schumer, 1982: 43) and "participating in democratic decisions makes many participants better citizens" (Mansbridge, 1999: 291). The proponents of participatory democracy have stressed on the educative effects of participation as a justifying function of public participation; they claim participation develops individuals' powers of thought, feeling, and action (Kaufman, 1960; Mansbridge, 1999; Pateman, 1970). Participatory democracy claims that participation in a forum of decision-making enhances political efficacy of the participants, builds "confidence in one's ability to participate responsibly and effectively, and to control one's life and environment" (Pateman, 1970: 45-46). Participation in a democratic system is expected to lead to a process of positive self-transformation of the participants by catalysing a set of desirable changes in the individual. It enhances the participants' faculty of practical reasoning, make people more tolerant of difference, more sensitive about the need for reciprocity, enhance people's ability to think and act with autonomy on the basis of their own preferences, and to engage in moral discourse and make moral judgments (Warren, 1995). Public participation is also expected to produce more cognitively competent and well informed people with an enhanced capacity for consensual action. It helps to determine a 'unanimous preference' through the power of reasoning (Elster, 1998: 112).

Before I discuss the democratic contributions of users' associations, it is important to understand organisation and operations of these micro-institutions. Electricity users' associations are informal community level institutions. Though they are required to register with the utilities, they do not have any formal legal status. While participatory decentralised governance model requires them to hold the service provider accountable, the model does not confer any formal power for that. These electricity users' associations

coexist with other community level institutions, like traditional village committee, village education committee, water users association, with overlapping membership. All the legal electricity users are default members of the users' association. These associations are governed by a small governing body consisting of 7-11 members. Leadership is often based around elders, experienced leaders and political aspirants. In case of Sundarbans, representatives to local government institutions are represented in the governing body. Consequently, it has resulted in sabotage of the group by local ruling party. The governing body is revamped along with the *panchayat* elections. However, the users' associations in Orissa have been apolitical.

In both cases, the groups meet once every month or more if required. In these meetings, members discuss any personal issues or community issues, take decision on penalising defaulters and cases of electricity theft, share experiences, discuss new policies and seek clarification. Occasionally, representative of service provider attend these meetings to offer clarifications and explanations. The decisions are usually taken by leaders and supported by the members. But in case of any opposition, the decision supported by majority of the present members prevails. Opposing members are obliged to comply with the final decision, as incompliance would mean deprivation from social goods. The users' associations seek to merge individual preferences to community preference. Further details with reference to particular cases are provided in the chapter.

Main goal of this chapter is to examine these claims of participatory democracy against actual evidence. Does users' participation in electricity service delivery has any educative spillover effects? In this chapter, I aim to identify spillover effects of users' participation in electricity service delivery. In the following five sections, I discuss five broad effects of users' participation observed in the cases studied. The effects discussed in the chapter are not exactly the same effects expected in the theory of participatory democracy; rather it goes beyond to include any observable consequence of users'

participation that has implications for democratic practice at present or in future. The section 7.2 analyses contribution of participation to enhancement of human dignity and respect of the participants; Section 7.3 discusses construction of 'citizen-consumers', a new form of citizenship; Section 7.4 analyses development of leadership quality and group solidarity at grassroots and discusses how users' participation in electricity delivery has promoted collective action for better service in other sectors; section 7.5 analyses how the above developments have affected public perception of government performance and their trust in government; and Section 7.6 aim to identify improvements in political participation among the electricity users. In the concluding section 7.7, I analyse the implications of these spillover effects for democratic practice at the grassroots. Do these effects matter for democratic practice and sustainability at grassroots? Do these effects contribute to empowerment of the rural people?

Considering the limited nature, scope and period of participation observed in the study, it is really hard to measure the spillover effects of participation and establish strong causal relations. Jane Mansbridge rightly claims that "the kind of subtle changes in the character that comes about, slowly, from active participation in democratic decisions cannot easily be measured with the blunt instruments of social science" (Mansbridge, 1999: 291). The changes observed in the study are subtle and patchy, primarily due to limited intensity and duration of participation. The findings across the two cases studied are skewed; I have more evidence of change from Orissa than West Bengal. It is so for three reasons: first, West Bengal, with a higher level of democratic practice and empowerment compared to Orissa, has experienced subtle and less observable changes during the period of study; secondly, my personal experience of living in rural Orissa has helped me in identifying the changes better in Orissa; and finally, I have spent more time conducting fieldwork in Orissa than in West Bengal. However, the cumulative findings suggest that active participation can have relevant and sustainable spillover effects on empowerment of participants and democratic practice at grassroots.

7.2 Enhancement in Human Dignity and Self-Respect

Human dignity and self-respect, as sources of freedoms and rights, have an important role in democracy. Joel Feinberg rightly claims that “having rights enables us to "stand up like men," to look others in the eye, and to feel in some fundamental way the equal of anyone. To think of oneself as the holder of rights is not to be unduly but properly proud, to have that minimal self-respect that is necessary to be worthy of the love and esteem of others. Indeed, respect for persons...may simply be respect for their rights, so that there cannot be the one without the other; and what is called "human dignity" may simply be the recognizable capacity to assert claims. To respect a person then, or to think of him as possessed of human dignity, simply *is* to think of him as a potential maker of claims” (Feinberg, 1970: 252). Human dignity and self-respect are inherent and inviolable rights of every individual. However, they are frequently violated and compromised in unequal societies like India, through norms of inferior and superior status. The norms of inferior or superior status are not only based on caste, class and gender, but also driven by perceived self-respect, respect for others, access to information, and physical location.

Participation in collective decision making and activity is expected to promote individual self-development and restore human dignity and self-respect. It is expected to develop individual powers of ‘thought’, ‘feeling’, and ‘action’. “The main justifying function of participation is development of man’s essential powers- inducing human dignity and respect, making men responsible by developing their powers of deliberate action” (Kaufman, 1960: 289). As claimed in the theory of participatory democracy, participation plays an educative role “in very widest sense, including both the psychological aspect and the gaining of practice in democratic skills and procedures” (Pateman, 1970: 42). However, these claims of participatory democracy are rarely tested empirically. In this section, in support of the claims of participatory democracy, I discuss some of ‘psychqological or characterological’ benefits gained through participation in electricity users’ committees.

The rural people tend to internalise an inferior status compared to the service providers. As part of my personal experience in living in rural Orissa, I have observed that the rural people are often afraid of the electric utility staff for their rude behaviour and demand for money towards inflated and erratic cost of service as well as bribe. Being unable to meet the demand for money, the poor people remain submissive to rude behaviour from the utility staff and still endeavour to provide high respect to them. In the process, the rural people compromise with their dignity, self-respect and rights as service users to please the service providers. As a consequence, the rural users have less demand for quality service, lack of voice against injustice, and accept erroneous norms and practices. It not only affects the quality of service and curtails their consumer rights, but also has serious implications for democratic practice by degrading political efficacy of the villagers.

Participation in the electricity users' committees, to a great extent, has contributed to restoring the human dignity and self-respect of rural people. Firstly, one must know his/her rights before claiming it; the villagers get awareness on their rights as service users through discourse in the meetings of users' committee. Second, participating in these meetings, which provide them the opportunity to discuss their preferences and reconcile it with others', the villagers learn to claim their rights. The users' committees not only provide awareness on consumer rights, but also provide opportunity to exercise these rights. A villager explaining his experience said:

> Electricity [users'] committees are very important...we identify our consumer rights through discussions in the committee. The committee provides opportunity to learn from experience of senior and educated people...This has helped us to claim our rights from the electricity company [utility]. In the meetings we decide on what we can claim while not affecting others right to the service. (Author interview)

Thirdly, the model of participatory service delivery, as discussed in the

previous chapters, has been able to solve the problems of inflated and erratic bill; that makes electricity service affordable to many of the rural poor. With increased ability to pay the cost of service and awareness of rights, the users are able to wane off the fear for utility staffs and resist any erroneous demand for bribe. This has resulted in transformation of users' behaviour while dealing with service providers. It was observed that users have become assertive about their consumer rights and are no more submissive to any rude behaviour from the service providers; rather the users dare to question the utility staff for anything they are not satisfied with.[65] In some cases, the villagers have successfully organised protests and gherao against service providers' inaction and for immediate response to problems. Many of the users in both Orissa and West Bengal asserted that they are not scared of the utility staff: "they are appointed to serve our needs...They get their wage from our money. They should be accountable to us. Why should we fear them?" (Author interviews) The assertion is not just limited to electricity service, but extends to other services like education, health and public distribution system. Local

[65] In my early experience of living in rural Orissa, I have noticed that female members of fa mily would not come out, at least in the absence of male members, when the utility staffs are around in the fear of misbehaviour. But during the field work, it was noticed that, in most cases, female members would pay their bill as male members of the family would stay out on work. It was also noticed that female members would ask for explanation of their utility bill as many cannot read, ask for a receipt and complain about any problem they face. This transformation from hiding behind the walls in fear to coming out to interact shows improvement in human dignity and self- respect. This transformation has been possible through improvement in self-respect as well as capability to pay bills on time. Though the women members do not participate directly in the process, they gain this self-respect and confidence through their male counterpart. The empowerment in part of the women is partly an outcome of male member's empowerment and partly because they have become righteous consumers- by consuming on measure and paying bills on time.

administrative staffs complain about rising assertiveness of villagers:

> The concept of specific village committee is very notorious. The villagers have formed a committee for almost everything; there is an electricity committee, an education committee and a committee for water users. It makes our job difficult. You have to deal with so many of them. Whenever there is a small problem, they start a protest, gherao the office till you find a solution for them. They are impatient and irrational. When 20/30 people stand in front of you, you feel helpless; it is hard to control them. (Author interview with local Block Development Officer, Orissa)

It shows there is a rising consciousness on rights and enhancement of human dignity and self-respect among the villagers. The villagers demand some respect from the utility staff in day-to-day dealing; they are not ready to submit to rude behaviour from the utility staff. In a particular case, one of the users' committees studied in Orissa has successfully demanded change of local revenue collector for his rude behaviour. The villagers, who had internalised an inferior status to the service providers (local bureaucrats and utility staffs), now are able to challenge the same officials and hold them accountable for their action and inaction. Enhancement in human dignity and self- respect through participation has also initiated and contributed to other educative effects discussed below.

7.3 Construction of Citizen-Consumer

In the era of market populism[66], public participation has an important role to play in sustaining publicness of public services. In the past two decades, public service delivery has been going through structural reforms for service

[66] Market populism is the idea that markets within a capitalist system serve as the best expression of popular will. Supposedly capitalist markets are democratic institutions that "do what people want." Markets are not only mediums of distribution and exchange, but mediums of consent that express the will of the people (Frank, 2000).

improvement. The central theme of public service reforms is that service users want to be treated as consumers by service providers. But access to public service is not same as shopping. People see public services as different from market place and value 'publicness' of these services (Clarke et al., 2007). While the neo-liberal reforms in public service delivery aims to commodify the services and treat the users as mere consumers, the users of public services have many relationships with the services as citizens, experts, tax-payers and voters. They are part of the wider community, member of the service delivery system. Users' participation in service delivery has significant implications for sustaining various relationships between people and public services. Interplay between public participation and market populism has resulted in construction of a new vision of citizenship which is referred as 'citizen-consumers' (Clarke et al., 2007; Cohen, 2003). Citizen-consumer is demanding for better service, but sceptical of market strategies, particularly of competition and choice (Clarke et al., 2007). As opposed to purchaser consumer, which is located in part in the atomised appetitive behaviours of individuals and in part within ideologies among economic planners, the citizen consumer is located self-consciously within consumer organisations and consumer movements and as an ideal among people in those organisations and movements and some people outside them (Cohen, 2003). In this section, I discuss how and to what extent the electricity users' committees, as consumer organisations, construct citizen consumers.

As I discussed in earlier chapters, electricity supply industry in India is under transformation during past two decades. Structural reforms initiated since early 1990s aim to establish a free and competitive market of electricity service where the users' have choice, freedom to choose. But where there is inequality of income, this freedom reinstates the inequality between poor and rich. The main criticism of this approach is that it treats electricity service as a commodity and reduces publicness of the service. The electricity users' committees seem to be protecting publicness of electricity service by reconciling individual interest to construct a public interest. At the same time, it trains the members to be

sensible consumers. Users' committee meetings act as a forum where the users deliberate to reach at a collective preference and where individual preferences are transformed through discourse. In the process, all member get opportunity to express their preferences and defend it. The users as member of a community (citizens) fulfil their obligations to one another, engage in mutual deliberation, and exercise their thought and choice in the definition and pursuit of collective interest. The decision to control load during peak hours and provide access to private property are examples where individual preferences are transformed in pursuit of collective interest. As a purchaser consumer in a free market, the members are free to consume as much electricity they want given that they pay for it. But as a member of the community, they agree and abide to consume sensibly so that other can have access to the service. Similarly, as an individual, the users have every right to protect their private property from infringement. But as members of the community, they agree and abide to provide access to their private property for benefit of the community. As experts, members shape their requirement, plan for local electrical development and extend support for implementation. As a consortium of voters, they also try to influence their political representatives for their needs. Describing the changes after users' participation, one of the users' committee head in Orissa said:

> As individual consumer or voter we had less bargaining power. As a group, we have double bargaining power. Now we can directly demand better service from the utility [as a group of consumers] and put extra pressure for our demand through our political representatives [as a group of citizens/voters]… As individual consumers, those who had money power and political connections used to get better service. But as a group, all the members benefit from any improvement that happens… For this collective benefit, every member has to make some commitment and contribution [These commitments and contributions include compromise of individual interests or preference for collective benefit]. (Author

interview)

The electricity users' committees also shape, protect and defend consumer interest of their members. The users are trained to hold the service providers accountable, express their need and challenge the provider. It is evident in rising assertiveness of the electricity users and their anxiousness to get efficient, effective and transparent access to the service. Simultaneously, they are educated to be responsible as consumers to the providers. It is evident in less differential attitude, increasing willingness to pay for the service and follow the rules and regulations. Even though being a consumer organisation, a community of private figures, the electricity users committee tend to promote a sense of citizenship, though different from traditional citizenship. The horizontal relationships of citizenship, based on egalitarian principles, are present in the users committees. The members are treated as equals and have equal say in the process, even though their status would vary as consumers. This has been possible through enhancement in dignity and self-respect that puts the members as equal citizens to their fellow members irrespective of their consumer status. At the other hand, the members become more assertive citizens as their membership is associated with cash payment in form of their utility bill.

7.4 Promotion of Leadership, Group Solidarity and Collective Action

Participation, leadership, group solidarity and collective action are closely interrelated. Effective participation requires good leadership. Goodman et al. (1998) points out the important role leaders play in the development of small groups and organisations which are part of the continuum of participation and community empowerment. At the same time, participation is a means for leadership building through education and empowerment. Similarly, group solidarity and collective action are required for effective participatory initiatives and fostered through continuous participation. In this section, I aim to find if participation in electricity users' associations promotes leadership, group solidarity and collective action. Though the study does not make a strong claim

that participation in electricity users' associations results in leadership building, group solidarity and collective action, it points out some positive instances.

Leadership is a blurred concept often confused with other forms of social influences. Leadership is a particular aspect of human capital that enables individual community members, as leaders, to act as agents of change to mobilise others and catalyse action (Bass, 1990). On that basis, the leaders in the case studies are the governing body members of electricity users' associations, who lead the users associations in all their initiatives. There is no standard size of these governing bodies. Each users' association decides the size of their respective governing body, which varies from seven to 11 in the cases studied. Again there are no fixed norms for selection of the governing body. The members of users' associations select their leaders on the basis of three criteria: 1) whom they like (often educated elites and elderly people), 2) whom they perceive to be leaders (people with some experience of leadership), 3) whom they think are active participants (enthusiastic and energetic members with innovative ideas). However, there are two variations between Orissa and West Bengal in selection and composition of governing body members. In Orissa, the governing body comprises of only selected leaders from the users/members irrespective of their political affiliations. But in West Bengal, by design, the governing body comprises of two members from the local government. At the same time, as the electricity users' associations are co-opted by the ruling political party (in the local government)[67], the other

[67] The electricity users' associations in West Bengal (and in Orissa) are designed to be apolitical. But in practice, the ruling political parties at the grassroots level have captured these users association in West Bengal. My observation during the fieldwork substantiates this claim. During my fieldwork, West Bengal had an election for local government institutions. In the study area, Trinamool Congress Party came into power defeating the ruling CPI(M). Immediately after the elections, the electricity users' associations were reshuffled to accommodate the members of the Trinamool Congress.

members of the governing body are usually affiliated to the ruling party.

In all the cases studies, the governing body comprises of some members active in other forums like traditional village committee, water users' association, education committee or local government institutions. However, a deliberate effort has been made to keep some positions available for new leaders. As a member in Orissa said, "we do not want the same people to head all the committees. Then, they work for some committees and ignore others… Those who are interested and active should get a chance. Otherwise, they bring in negative energy and create obstacles for those who work" (author interview).[68] Some users associations have developed innovative models to accommodate new leaders and for better representation. For example, one of the users' associations in Orissa has fixed two year tenure for governing body members. None of the governing body members can serve for a second term until all the members of the users' association have served once in the governing body. That ensures that all the members get a chance to lead the users' association. Another users' association has a provision to have governing body members from different geographic parts of the village. All the users' associations in Orissa claimed that if a governing body member is inactive and continuously absent in meetings, then he is replaced by a new member. However, these innovations could not be found in case of West Bengal, possibly due to interference from the local government, political parties and WBREDA leaving little space for the users' associations to manoeuvre.

While participation in electricity users associations not only empowers the members by educating them and enhancing their dignity and self-respect, the electricity users' associations provide some space for new leaders. However, leadership building varies from case to case based on the manoeuvres done by the users' associations. There are a few instances where leadership in social

[68] I came across similar viewpoints in both the cases. But in Orissa this strategy is followed to accommodate newly emerging assertive youths, while in West Bengal it is more a strategy to accommodate party workers to hold party control.

participation has transformed into representative or political leadership. In both Orissa and West Bengal, some of the leaders in electricity users' associations have been elected to local government institutions. A Ward Member (village representative in local government) in Orissa, who have served in the governing body of electricity users' association, narrated his experience:

> It was the best thing that happened for me. I never thought I would be part of development, sit with government people and talk to them. I always had fear for them and never understood the way they work. I got to learn a lot from working in electricity committee. When my friends suggested to contest in election, I had some confidence in myself and support of the electricity committee. Now I am capable of negotiating with government people. (Author interview)

Another local government representative in West Bengal reported slightly different experience and motivation for working in the governing body of electricity users' association:

> I always wanted to join politics and work for people. The electricity committee provided an opportunity to gain some experience and prove my leadership capability. I also gained [political] support of people for my good work in the electricity committee. For me, electricity committee was a step to Panchayat [local government]. (Author interview)

Another anticipated contribution of community participation is promotion of strong group solidarity. Group solidarity is a pre-requirement for effective participation and can be promoted through effective participation. Rural communities are often fragmented on the basis of various social identities like caste, class and gender. These social identities often dominate any form of group mobilisation and hinder mobilisation on the basis of any other identity. In that context, how far the electricity users' associations are successful mobilising the members on the basis of electricity user identity, surpassing the social identities?

Group solidarity can be facilitated through bringing together people who share common interests or problems. It is characterised by strong internal monitoring and sanctioning systems, strong intra-group ties, high exit costs and lack of information about resources outside the group (Heckathorn and Rosenstein, 2002). In the present context, the electricity users groups brings together people facing a common problem of poor electricity service and sharing common interest to improve their access to better electricity service. As discussed in earlier chapters, the groups have ensured internal monitoring of their members, how they behave as consumers, and have some sanctioning power. Active participation in the group provides a wide range of information on user rights, obligation and available resources, which is not easily accessible outside the group. Participating in the group, over time, the members also realise that they can serve their interests better as a group than as an individual. Exit from the group would imply deprivation of the common goods and even deprivation of the basic access to electricity.

So the electricity users' associations demonstrate stronger group solidarity as electricity users. This is partly facilitated by lower social division and less caste based mobilisation in the study areas. Electricity users' associations are male dominated arenas, where there is no role for female members of the society. So, there is no problem of gender divisions. The villages in Eastern India are divided on the basis of *Varna* System. There are separate villages for *Savarna* (caste Hindus) and *Avarna* (out castes or untouchables). Coincidentally, all the villages studied are *Savarna* villages. Even though there are differences within *Savarna*, in the absence caste based politics in the two states, the caste divisions are not extreme like Northern states of India.

A unique characteristic of the users' association is that they not only foster intra-group solidarity, but also exhibit inter-group ties. It was observed that in both cases, the electricity users' association work with their counterparts from nearby villages for common goods like extension and maintenance of distribution network. Inter group ties have been facilitated by

the presence of second tier institutions, viz. cooperative in West Bengal and franchisee in Orissa, who brings the associations under one platform. The users' association not only work together, but also learn from each other's experience of handling issues.

Leadership building, group solidarity and consistent participation have resulted in some form of collective action. In the previous chapters, I have discussed how collective action has contributed to improved electricity supply. In some cases, the users' associations have taken up developmental actions beyond their core activity. In a village in Orissa, the electricity users' association developed a plan for improving school education in the village. Along with the *Gram Sabha* (traditional village committee), the electricity users' association has appointed para-teachers in the school to increase teaching hours and provide additional support to students. Later an education committee was created to monitor the teachers and their performance.

7.5 Declining Faith in Government

In recent years, among the politicians, journalists and citizens, there is an increasing concern about declining trust in the government and its agencies, and the detrimental effects this has on government and the cohesion of society (Bok, 2001). The underlying rationale is that higher citizens' trust in government will equal better governance. The debate on citizens' trust in government is not new; it has received central position in classical liberalism, in the writings of John Locke. Locke claims that the relationship of citizens to government is one of trust, not one of contract (Dunn, 1984). However, the standard contemporary argument for the importance of trust in government is related to the commonplace view that without normative commitments by citizens, government cannot gain obedience from citizens. Citizens must trust government if government is to work well and decline in citizen trust of government bodes ill for many contemporary democratic societies. A striking thing about the contemporary vision that citizens should trust government, and that it is a failing of either citizens or government if they do not, is that it is

strikingly contrary to the traditional liberalism (Hardin, 1998; Hardin, 1999).

The contemporary view establishes a perceived link between government performance and citizen trust in government (Yang and Holzer, 2006). The efficiency with which government delivers services is an important determinant of government performance and thus, a determinant of citizen trust, but there are several other contributors. Sims (2001) has listed a variety of factors as possible explanation for deteriorating performance of governments and declining trust of citizens. Government performance is a complicated amalgam of what government is actually doing and what the public perceives it to be doing. Nye (1997) points out complexities in measuring government performance: "[It] is more complicated than it first appears. To what should we compare government performance? Expectations? The past? The performance of other countries? That of other institutions such as private businesses or non-profit organisations? Another problem with measuring performance is distinguishing general outcomes from specific outputs of government" (Nye, 1997: 101). On the other hand, most citizens do not have the information they need to assess government performance and to decide to trust. These are such information which many of the citizens cannot sensibly claim to have with respect to most government policies and officials or with respect to government generally (Hardin, 1999).

However, rising education level and people's ability to access more information about government from a variety of sources may enhance their capability to assess government performance and thus influence their trust in government (Sims, 2001). With that assumption, I aim to find out whether users' participation in electricity delivery affects their trust in government. Does participation in electricity users associations enhance the participants' skill of assessing government performance? How does that affect their expectations from and trust in government and its agencies?

As discussed earlier, electricity users gain important information regarding the service (including relevant policies, their implementation, user

rights and obligations) through participating in electricity users associations. These information are collected from and validated by various sources and certainly richer than the information available to individual electricity users. In the light of these information, the electricity users are able to better assess government (and its agencies') performance in delivering the service. The information also enables the users to identify loopholes in government system that affects their access to service. Consequently, it shapes their expectation from the government and their trust in government.

This has resulted in multi-level understanding of government performance in electricity service delivery. There is a general understanding that government has failed to delivery good quality electricity service at affordable price. Here, the perception is that the national government has ignored their state and the state government is less sensitive to electrical development in rural areas. This perception is shaped by comparing with the perceived status of electrical development in other states, which is based on mere assumption than facts.[69] Secondly, there is an understanding that the policies are not properly implemented and resources are not effectively targeted owing to an inefficient and corrupt human resource within the sector. As a response, the users try to minimise corruption by monitoring the utility staffs. Finally, the users acknowledge that weak fiscal status of the utilities has affected quality of electricity supply in rural areas. As a response, they try to access alternative sources of funding[70] for electrical developments, while ensuring their revenue contribution.

[69] The electricity users, in both the cases, assume that electrical development in the developed states is at a much advanced stage due to their easy access to national resources. This assumption is partly based on media reporting. However, it cannot be substantiated with facts.

[70] In some instances, the electricity users associations have tried to generate alternative funding for electrical development from constituency development funds of local elected representatives and through community pooling.

These understandings have shaped the expectations of electricity users and trust in government. However, it varies across cases based on the local context. In the West Bengal case, the access to electricity is limited by duration of supply and geographical spread. So, the users expect the state government to make investment for increased electricity generation. In Orissa, where electrical developments are substantially advanced, the users expect less from the state government. They expect the local government to monitor the performance of local utility staffs. They are also willing to partner in local electrical development. Users' participation in electricity delivery has promoted obedience to government regulations (in relation to electricity supply) from the users, while shaping their expectation from the government in tune with their requirement. But that does not necessarily imply higher trust in the government. The users in West Bengal bestow high trust in the state government as they believe that the recent electrical developments in their area have been possible through government initiatives and it is capable of sponsoring further development. However, in Orissa, the users believe that the recent improvements in electricity delivery have been possible through their initiatives at the local level, while the government has been 'irresponsive'. This shows the electricity users' trust in the government is framed by their perception of government performance and their expectation from the government.

7.6 Increasing Political Participation

Participatory democracy suggests that participation in decision making in social institutions is an educative tool for the creation of democratic citizens. It suggests that being involved in democratic social relations in a variety of institutions helps people gain the confidence, knowledge and outlooks that enable them to be effective and participatory citizens in the larger society (Dahl, 1985, Pateman, 1970, Greenberg, 1986, Barber, 1984). Based on these assumptions, the study aims to find if the members of electricity users' association demonstrate higher political participation. Though the study finds

significantly high political participation among the members of electricity users' associations, due to lack of substantial evidence, it does not establish a causal link between participation in users' associations and political process.

The major difficulty in this part of the study is lack of secondary resources on the status of political participation in India. With limited information available, it is hard to set a concrete baseline. However, there are two studies available which have analyses grassroots political participation in two states, viz. West Bengal and Karnataka. Bardhan et al. (2008), based on a survey in rural West Bengal, claims that 50 per cent of the rural households attend political meetings, 25 per cent participate in political campaigns, 37 per cent attend Gram Sabha meetings and 11 per cent ask questions at these meetings. Crook and Manor (1998), studying grassroots participation in Karnataka, claim 23 per cent of the rural households are involved in campaigns, 17 per cent attend Gram Sabha meetings, and 6.5 per cent ask questions. Taking these finding as baseline, I seek to find out if political participation rate is higher among the members of electricity users' associations.

Most of the electricity users interviewed were asked about their political participation during last elections for state legislative assembly and local government institutions. Out of 283 electricity users interviewed in Orissa, 221 interviewees and all 127 electricity users interviewed in West Bengal were asked about their political participation. The findings imply higher political participation among members of electricity users associations.

In Orissa, during the state assembly elections, 37 per cent of the interviewees have attended political meetings and 22 per cent have participated in political campaigns. However, in the election for local government institutions, 72 per cent interviewees have attended political meetings and 46 per cent were engaged in political campaigns. 83 per cent interviewees claimed that they have attended the Gram Sabha meetings at least once during last one year and 46 per cent claimed to have attended all the meetings during last one year. 27 per cent of them claimed to have raised a question in these meetings.

All the interviewees (100 per cent) claimed that they have voted during both the elections.

In West Bengal, 68 per cent interviewees have attended political meetings and 39 per cent have participated in political campaigns during the state assembly elections. In the local government elections, 85 per cent interviewees have attended political meetings and 45 per cent were engaged in political campaigns. 92 per cent interviewees claimed that they have attended Gram Sabha meetings at least once during last one year and 57 per cent claimed to have attended all the meetings during last one year. 32 per cent of them claimed to have raised a question in these meetings. 98 per cent of the interviewees have voted in state assembly elections and 99 per cent have voted in elections for local government institutions.

It shows a significantly higher political participation among members of electricity users' associations compared to findings of Crook and Manor (1998) and Bardhan et al. (2008). However, there is no evidence to prove that this rise in political participation is an outcome of participation in electricity users' associations. There could be various other explanations for the increase in political participation. In recent years, there is a general trend of increased political participation in rural India compared to urban India. In Orissa, vote purchase (direct payment of cash for political support) might be a reason for increased political engagement, while in West Bengal political clientelism remains a reason for higher political engagement.

Yet, the findings demonstrate a new trend in democratic political practice. In both the cases, there is higher political participation, particularly attending meetings and campaigns, during elections for local government institutions. Possibly, it is because the rural people can connect more with the local governments than the state governments. Declining faith in the higher tier of government, as discussed in the last section, partly explains lower political engagement during state assembly elections. Social closeness and accessibility of candidates, which is higher in local government elections, might influence

attendance of political meetings and campaigns. Nevertheless, increased political participation during local government elections imply strengthening of grassroots democracy.

However, participation within the electricity users' association is quite high, though the meetings are not held regularly. Because, the committee meets to discuss specific issues, they meet only when there is any issue to discuss. But, the meeting are highly attended. Though it was practically difficult to quantify the attendance, it was observed that attendance was higher than traditional village committee meetings (which are regular). As expected, however, participation in discussion is low; while few people raise the issue and take a decision, other just give their consent. Interestingly, in none of the meeting I had attended, there was any opposition or resistance to the decisions. Perhaps, it is because of the local culture in eastern India to accept and oblige elderly and qualified members of society. For example, one of the meetings in Orissa was called to discuss a member's resistance to put a stay on his private land. Though the member had declined permission to the utility staffs to put the stay in his land, when requested by the committee member, he agreed to it instantly (Author observation).

7.7 Conclusion

Drawing on the discussion in this chapter, it seems that users' participation in electricity delivery has some spillover effects. The five broad effects of participation discussed in the chapter imply that participation may contribute to civic and democratic values of participants. Enhancement of human dignity and self-respect enables the participants to interact with the service providers as equals and hold them accountable. This confidence could be useful to interact and negotiate with their political representatives and decision makers and hold them accountable for their decisions. Awareness gained through participation makes better citizen-consumers who are informed about their rights and sensible to their obligations. While as consumers they are informed about their rights and how to claim them, as citizens they know their obligations and

perform them. Electricity users' associations have been able to promote leadership, group solidarity and collective action. While participation in users' associations instils the skills of leadership in the participants, the users' associations provide a platform to exercise these skills. Here, participation has resulted in strengthening of group solidarity among the electricity users as a community bridging the social divisions. In some cases, this solidarity has resulted in constructive collective activities and goods.

At the other hand, participation leading to awareness and self-confidence has resulted in declining faith in state institutions, particularly the higher tiers of government. There is an emerging perception that state has failed to deliver. Consequently, there is a building pressure on the state institutions to perform well, while there is enthusiasm to collectively take on some of the responsibilities where the state has failed. A related development is higher political engagement at grassroots compared to macro level political events. Though the participants of electricity users' associations tend to engage more in political activities, they are more active in micro level political events. This has significant implication for democratic institutions and practice. This trend might demand further devolution of power, responsibilities and resources to lower tiers of government and result in strengthening of grassroots democracy.

Participation in users' associations seems to appreciably influence democratic institutions and practices in rural India. Yet, there is not enough evidence to establish a causal link. The study has not clearly established that these changes are direct outcome of participation in electricity users' associations. The changes observed are subtle and found in few places. That implies there is a long way to go. Scaling up community participation and sustaining it for longer period might produce better results. However, it is hard to make a case for any kind of state intervention to promote community participation for the purpose of strengthening democratic institutions and practices. Further research on community participation and its impact on

democratic value and practices would be useful to make a strong case.

Chapter 8

Conclusion

8.1 Introduction

I opened the research with the backdrop that state provision of electricity service has failed in India. It has failed more for the rural poor. In this research, I have tried to analyse the potentials of decentralised participatory electricity delivery as an alternative to the conventional centralised state provisioning of electricity service. The aim of the research was to identify and analyse the outcomes of decentralisation and users' participation in electricity delivery. As demonstrated in the previous chapters, decentralisation and users' participation in electricity delivery have significantly improved electricity service in parts of Eastern India by contributing to efficiency and effectiveness gains in electricity delivery. At the same time, the study finds that participation in electricity users associations have resulted in some improvements in civic values and political efficacy of the participants.

This final chapter spells out the wider implications of the empirical analysis of decentralised participatory electricity delivery. It draws out the general conclusions reached on this research, their implications for Indian energy policy, highlights some limits and further research questions. The chapter is organised as follows. The Section 8.2 summarises the findings of the research and points out the limitations. The Section 8.3 makes a case for an integrated approach to local public service delivery. The Section 8.4, based on the findings, outlines several policy recommendations for improving electricity service in rural India. The Section 8.5 outlines some unanswered questions and identifies issues for further research.

8.2 Summary of Findings

Perceived failure of centralised electricity delivery and market-oriented reforms has led to increasing advocacy of decentralised and participatory model

of electricity delivery (decentralised governance of electricity delivery, as it is referred in the literature) in India. The proposed institutional reforms in electricity service delivery, driven by international experiences and global debate on participatory development, does not pay attention to uniqueness of Indian experience and context. The study, drawing on experience in two cases from Eastern India, is an attempt to fill the gap and contribute to the policy process. The purpose of this study is to identify and analyse the potentials of decentralisation and users' participation in electricity service delivery in Indian context. The key question is that can decentralisation and users' participation address the problems existing in conventional model of electricity delivery and improve efficiency and effectiveness of electricity supply system. At the same time, building on the theory of participatory democracy, the study aimed to find out spillover effects of users' participation in electricity delivery; how participation in electricity users' associations affects participants' political efficacy. The study is aimed at identifying the potentials of decentralised and participatory electricity delivery in Indian context. So it has primarily focused on the positive outcomes of the new institutional arrangements, drawing on successful cases.

At first, the study has analysed the politics of electricity delivery in India and how it has contributed to the current state of electricity service. It finds that since India's independence, Indian electricity sector has passed through four phases of major policy shifts: the first, following independence in 1947, led to the consolidation of public power in the sector; the second, from the late 1960s through the 1980s, was characterised by political interference and led to the emergence of a populist paradox in the sector; the third, beginning in the early 1990s, laid the groundwork for the shift to market orientation by opening up the sector to private players and structural reforms; and the fourth phase began with the enactment of the Electricity Act 2003, marking a new beginning and seeking to strike a balance between the economic and the social objectives through various approaches. From the analysis of these policy shifts and their impacts, I conclude that the Indian

electricity sector has developed several inefficiencies over the past six decades that impede its performance. First, technical and commercial loss in Indian electricity is as high as 35 per cent, while the loss for a standard efficient system is below 10 per cent. Second, high level of theft is a unique feature of Indian electricity and is almost non-existent in efficient electricity delivery systems. Third, poor revenue realisation due to non-payment by users (induced by non-users' theft and political protection) and ineffective revenue collection mechanism has contributed to the financial crisis of the utilities. Fourth, lack of transparency, resulting in high levels of corruption, and lack of accountability has contributed to the poor quality of the service. Fifth, the Indian electricity sector has underestimated the potential of end-use efficiency, which has resulted in unethical use and overuse of the service. Lack of end-use efficiency coupled with other problems has contributed to poor quality of supply which is evident in low voltage and frequent blackout. Finally, all these problems together have seriously impeded access to the service for the poor, undermining the social objective set at the time of independence to bridge the gap between urban and rural areas and between rich and poor in terms of access to the service. In the empirical analysis in the thesis, I have discussed how decentralisation and users' participation has been addressing these inefficiencies and thus contributing to improvement in electricity service delivery.

In the first part of the empirical analysis, I have questioned the normative claims around efficiency gain in decentralised governance of service delivery drawing on experiences of decentralised and participatory electricity delivery in Eastern India. The findings suggest that putting people at the centre of service delivery can work; it has potential to improve the operative efficiency in service delivery mechanism. Decentralised participatory model of electricity delivery embodies institutionalised coproduction where the users contribute to service improvement. It emerges as one of the solutions to problems in conventional electricity delivery mechanism, particularly in rural areas. Decentralised governance of electricity delivery has, to a great extent,

addressed the major problems in Indian electricity supply industry and contributed to efficiency gain in electricity service delivery. It has checked electricity theft, promoted end-use efficiency, increased revenue realisation, reduced technical loss and in consequence, improved quality of supply. However, there is variation in performance across cases. In case of Sundarbans, most of the problems do not exist partly because users participation was introduced from the beginning and participation is institutionalised well. In case of Orissa, both the franchisee served villages and utility served villages have performed equally where efficiency gain is due to the contribution of users. But where efficiency gain requires service provider's contribution, franchisee served villages have performed better than utility served villages. The study finds that presence of decentralised or local service provider contributes to better maintenance of distribution network, better collection of revenues, better quality of supply and better response to users.

In the second part of the empirical analysis, I have discussed how decentralisation and users' participation have brought in effectiveness in electricity service delivery. The study concludes that decentralisation and users' participation has significant impact of effectiveness of electricity delivery system. As the case studies show, decentralisation and users participation can bring in transparency in process of service delivery making the users aware of their rights and responsibilities. As a consequence, there is decline in level of corruption and change in nature of corruption. Deliberation in users' committees enhances the capacity of rural users to express their voice, shape shared user values and standards of performance to judge the service provider. As an outcome, it empowers the users to hold the provider accountable. At same time, presence of a local service provider with a sense of responsiveness and risk makes the delivery system more accountable to the users. Users' awareness gained through participation and increased transparency makes them upward accountable to the service provider. Increased transparency and accountability, in the presence of a local service provider, improves the quality of service. While transparency and accountability enables the users to demand

and bargain for better service, local service provider remains more accessible and responsive to the rural users. Altogether these improvements in electricity delivery have contributed to equity of access, reflected in increased access to service, making the service accessible to the poorer segment of society.

Decentralisation and users participation in service delivery clearly emerges as a possible solution to the failures in conventional model of electricity delivery and a strategy for India's universal electrification drive. While all the cases have shown commendable improvement in effectiveness in reaching to the rural households, there is significant variation across cases. The major reason for this variation in the cases is presence or absence of a decentralised local provider. While users' awareness, voice and demand can be raised through participation, there is a need for responsive service provider to respond to users demand, provide better access and quality of service. The emerging lesson is decentralised local service providers are more effective that large service providers, be it state run or private owned. Orissa experience suggests that decentralisation and users' participation can make an existing failing system of service delivery efficient and effective, while Sundarbans case suggests introducing decentralisation and participation from the beginning, at the design stage, may help to build an efficient and effective service delivery mechanism. It must be recognised that having an off-grid electricity system, Sundarbans is less likely to have some of the inefficiencies found in grid-based systems. For example, limited availability of electricity makes metering unnecessary and billing error and over consumption virtually impossible. Moreover, the fact that electricity is generated within the community, it becomes a common pool resource that is owned and protected by the community. Consequently, scope of theft is technically limited.

In the final part, I have tried to analyse empirical validity of claims for participation as an end in itself, drawing on users' participation in electricity service delivery. Here, I have tried to locate how participation in electricity users' associations has contributed to civic values and political efficacy of the participants. The study concludes that users' participation in electricity

delivery have some spillover effects, though subtle and patchy, evident in improvement in dignity and self-respect of the participants, construction of citizen consumers, promotion of leadership, group solidarity and collective action, changing expectations and faith in government performance, and increased political participation. However, these spillover effects of users' participation in electricity delivery are mediated through local social and political context. However, the study has not established that these positive changes are direct outcomes decentralisation and participation in electricity supply. Further research is required to find evidence to establish the link.

The research concludes that decentralised and participatory electricity delivery can be pursued as an alternative to centralised state provision of electricity service. Decentralisation and users' participation can be embedded into the existing centralised arrangement to improve service delivery. Moreover, the model of service delivery, by ensuring users' participation, can have educative effects for the participants.

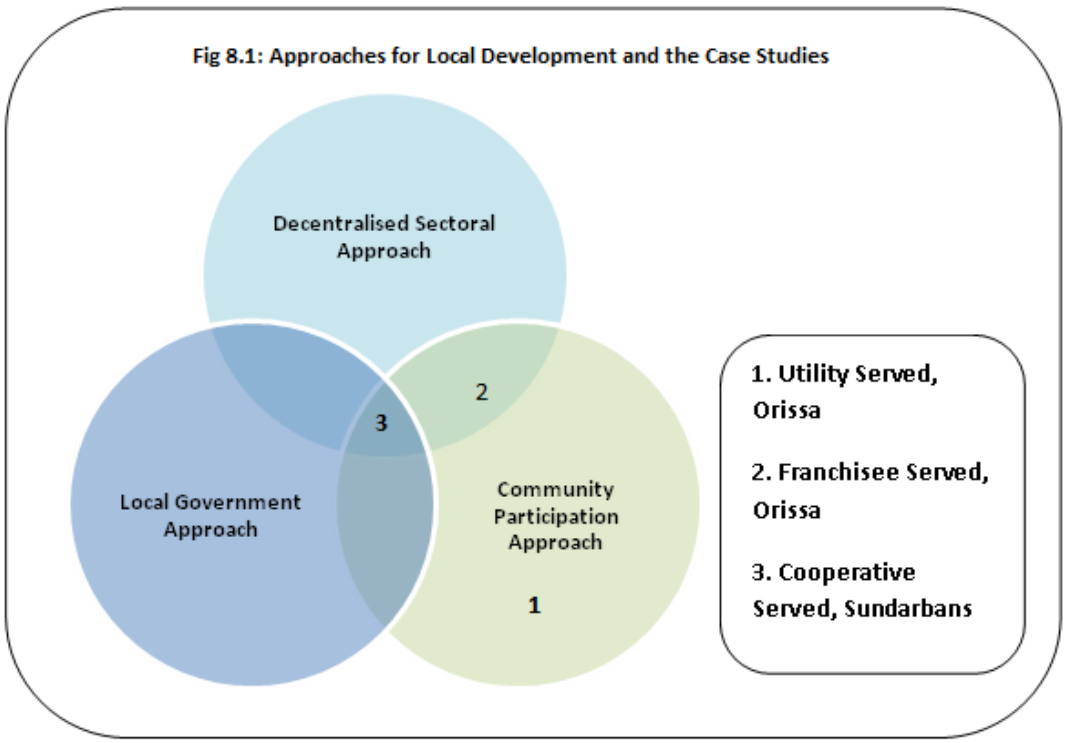
However, there are several limitations and some unanswered questions in the research. The conclusions of this research are based on limited empirical foundations. The research is based on experience of decentralised governance of electricity delivery in parts of two states in Eastern India. So, I do not generalise the findings. The findings are specific to the cases. However, insights from these two cases can be used to improve the model for electricity delivery and can be scaled up across the country and sectors with consideration for local social and political context. Secondly, though the study has two case studies and makes comparison between them, there is more information from the first case, i.e. Orissa, due to various reasons mentioned in Chapter 4. Thirdly, as the study aimed to identify and analysis the potentials of a specific model of electricity delivery, there is some biasness in presenting and emphasising the positive outcomes of decentralisation and users' participation in electricity delivery. Finally, as the model of electricity delivery is implemented at micro level (in few villages), the outcomes are limited within the micro level. The outcomes of decentralisation and users' participation have little impact on macro (state or

national) level status of electricity delivery. Yet, I have compared the findings with macro status of electricity service where possible.

8.3 A Framework for Local Public Service Delivery

The participatory development literature identifies three different approaches to local development, viz. decentralised sectoral approach, community participation approach and local government approach. Decentralised sectoral approach emphasises on functionally specialised organisations at the local level, with operational autonomy allocated through deconcentration or delegation policies. Community participation approaches emphasise community organisations as institutions of collective action and interlocutors between people and public service providers. Local government approach promotes territorially organised political and administrative institutions, with policy and operational autonomy allocated through devolution policies. These three different approaches to local development aim to provide public facilities and services at local level and share common principles like empowerment of the poor and marginalised groups, responsiveness to beneficiary demand, autonomy of local institutions, better downward accountability, and enhancement of local capabilities (Helling et. al., 2005).

In the present study, we can see presence and integration of these three approaches to local development (See Figure). In all the cases, the bottom level of institutions (users' associations) is an outcome of the community participation approach pursued for improvement in electricity delivery. In the franchise served areas of Orissa and Cooperative served areas in Sundarbans, the middle layer of institutions (franchisee and cooperative) is an outcome of decentralised sectoral approach. In Sundarbans, local government approach is pursued with integration of local government institutions in the electricity cooperatives. Sundarbans case depicts integration of all the three approaches to local development, while in the franchised served areas of Orissa there is a combination of decentralised sectoral approach and community participation approach.



Though these three approaches to local development have shared principles and aim for a common goal of better public service delivery, they differ in their organisational principle and strategic orientation (See Table 8.1). Each addresses the same challenge from a different entry point and therefore has its advantages and limitations. General insights from the case studies are summarised in the table below. Decentralised sectoral approach, because of its entry through functional specialisation, tends to be better at mobilising technical capacity, but with limited devolution of authority and resources, it is insufficient to address local demand and issues. Local government approach, because of its entry through the institutions of territorial government, ensure clear formal autonomy and accountability of local decision makers and, to certain extent, sectoral authorities, but is often more politicised and less effective in managing utility services. Community participation approach contributes to empowerment and responsiveness to local priorities and conditions, but its entry point through community structure makes it weaker and sometimes complicated to coordinate with public sector agencies.

As we can see from the table below, each approach offers useful methods for improvement in service delivery, but each has limitations. Linking

these approaches for local development may offer better opportunities for significant synergies. As found in the research, there is variation in achievements across cases reflecting the combination of approaches followed. The Sunderbans case, with integration of all the three approaches, has performed better than Orissa cases. It has been successful in avoiding many of the inefficiencies that typically exist in Indian electricity supply industry (while some of the inefficiencies are technically absent in an off-grid system). Within Orissa, the franchisee served villages, with integration of decentralised sectoral approach and community participation approach, have achieved higher improvement in electricity service compared to the utility served villages with only community participation approach.

However, to effectively link these approaches, there is a need to find ways to ease the tensions arising from their different principles of organisation, strategic orientation and operational methods. A successful integrated approach for public service delivery would link community organisations, local governments and deconcentrated sectoral agencies more coherently to improve the way public decisions and actions are organised at the local level. While these basic local institutions are part of the integrated institutional arrangement for public service delivery, their roles and relationships may vary according to context. The venue for local decision making and resource management also vary according to the context. For example, the venue for final decision making and resource management is the electricity cooperative in Sundarbans, while in Orissa the venue is village electricity users' association. Linking this integrated bottom-up approach with national efforts for better public service delivery may produce better results.

Table 8.1: Approaches for Local Development

	Decentralised Sectoral Approach	Community Participation Approach	Local Government Approach
Principle of organisation	Function	Social Unit (Users as a Community)	Territory (Political or administrative Units)
Institutions	Functionally specialised local agencies (Franchisees or Cooperatives)	Users' Associations	Panchayats or Municipalities
Strategic Orientation	Work as agents of the centralised utility to achieve mandatory policy goals	Educate and empower communities to decide, organise and act in their own interest	The lowest tier of government directly provide the services within their jurisdiction
Key Findings	• It is necessary, but not sufficient for efficient and effective service delivery on its own • Delegated to outside (public or private) agencies • Brings the service provider closer to the users. More accessible, accountable and responsive to users • Demand-responsive arrangements- participatory priority setting, linking of service to willingness to pay, marketising of service • Tend to engage with users as co-producers and for service oversight • Enables allocation of scarce resources strategically, increase coordination, promote partnerships, and strengthens synergies • Increases accountability among service providers and users	Local government responsiveness requires both electoral accountability and political participation by users More accessible to users and can be accountable and responsive to them Effectiveness of service delivery system depends not only on the local governments also on the effectiveness of local civil society Effective service delivery requires collaboration and coordination between local government and sector agencies Can hold sectoral staff accountable through political pressure Can generate local resource for service improvement Can advocate local interests in regional and national forum	Community participation serves as an end-in-itself. Educates and empowers the community members as service users and citizens Participatory priority setting shapes the demand for services in tune with available resources Encourages citizen co-production in service delivery Promotes collective action for service improvement and beyond Promotes willingness to pay for service and use limited resources responsibly Promotes transparency in service delivery process Enhances opportunities for choices and voices for marginalised rural community
Limitations	• Lack of discretion to adjust sector policies and service priorities to local context • Lack of sufficient coordination, collaboration and integration across the sector • Difficulty in ensuring adequate responsiveness and accountability from higher sectoral officials • Absence of resource transfer for addressing local problems • Lack of policy support	Often over loaded with demand, while their organisational capacity and resource endowments are inadequate to meet citizen expectations and functional responsibilities In prioritisation of services, some services (like electricity) get less attention Lack of technical expertise required for service delivery Possibility of politicisation of decision-making or elite capture Reliance on formal mechanisms of accountability (e.g. elections) might undermine direct contact between local government and users	Weak links to broader service delivery system Little coordination and integration with the service providing agencies Lack of resources and adequate information for functioning Lack of technical expertise Possibility of elite capture and political co-optation Lack of policy support

8.4 Policy Implications

Findings of this research suggest that decentralisation and users' participation in electricity delivery can improve electricity delivery in Indian context. In the empirical part of thesis, I have demonstrated how decentralisation and users' participation lead to improved electricity delivery. However, there is still scope and opportunity for electricity service improvement. In this section, I have tried to make some recommendations for improvement in the particular model of electricity delivery and scaling up the model at national level.

Firstly, the institutional structure developed under the decentralised participatory electricity delivery model is an informal structure largely at the discretion of the utility. In the absence of formal legal mandate, these micro-institutions have little authority to make decisions, take action and hold the service provider accountable. Having a legal mandate (i.e. a policy) in support of the institutional structure for electricity delivery may contribute to the effectiveness of the model and give some authority to the micro-institutions.

Secondly, partly due to absence of a policy and partly for arbitrary nature of sectoral authorities, there is no clarity on role and responsibilities of these institutions. Often these new institutions are overburdened with responsibilities to perform without any devolved resources for that. In some case, it has resulted in putting extra burden on the users for resources required to run these institutions. In that context, there is a need to transfer more power and resources to these micro-institutions for their effective functioning.

Thirdly, these micro-institutions often do not have the relevant information regarding relevant policies, provisions and authorities. The state should provide them with relevant information in accessible form. Considering the requirement of technical knowledge for electricity service delivery, the state should provide training to these institutions.

Fourthly, these institutions can be further strengthened by building a network of users' associations, which will serve as a guiding body and promote benchmarking competition among the institutions for effective functioning. In case of Sundarbans, the need for such a network and guiding body has been fulfilled by the WBREDA, which has contributed to effective functioning of the cooperative model. On other hand, a strong network of users' committees can build a political muscle for rural consumers representing their interest in policy arena. Such a network can represent the rural users' interest in technical events like public hearings organised by regulatory commissions.

Fifthly, while the institutions are at their early stage and till the sector becomes financially viable, the state should be responsible for funding maintenance of the electricity delivery system. If the maintenance aspect is ignored, it will impair the quality of service and thus fail any attempt to improve electricity delivery.

Finally, while the decentralised and participatory model of electricity delivery has extensive potential for improving electricity service, the state has to play a significant role to improve access to the service among the poorest in the society. Though the model, as demonstrated, brings down the cost to access electricity service, there is sizable population who cannot access the service at the reduced cost. The state needs to make special schemes with government subventions to subsidise the service to make it accessible to the poorest.

In the presence of enabling elements, like a favourable policy and institutional environment, capacity enhancement, and resource transfers, decentralised participatory model of electricity delivery can be a solution to many of the problems in Indian electricity supply industry. It can be a great facilitator in achieving India's goal for universal electrification. The findings of the research make a case for scaling up the decentralised and participatory electricity delivery model across national level, at least in the rural areas. Considering substantial similarity of social and political conditions across Indian states, introducing decentralisation and

users' participation in electricity delivery through a combination of decentralised sectoral, local government and community participation approach will result in improvements in electricity delivery. However, making a case for applicability of the model to other public services requires further research on state of particular service delivery.

8.5 Further Research

When I conceptualised the current research, the key policy question was how to extend the electricity service to half of the population in India, while improving the service for those who have access to it. Since then, owing to increasing greenhouse gases (GHG) emissions and climate change concerns, there is another aspect to the policy question: how to achieve the above objective while keep GHG emissions low in electricity sector. Under this circumstance, like other developing countries, Indian energy policy is confronted by the challenge of balancing between four competing objectives: i) sustain economic growth through powering industrialisation, ii) increase energy access for the poor, iii) enhance energy security, and iv) improve the environment (World bank, 2009). In response, the energy policy in India has been modified to make arrangements for energy end-use efficiency and conservation, something that has been ignored for years. In that context, can decentralised participatory model of electricity delivery achieve its goals, while promoting energy efficiency? This question merits further research. Though the research finds some evidence that decentralised participatory delivery of electricity service promotes end-use efficiency for demand management and reducing load on weak distribution network, it is not enough to claim that decentralisation and users' participation in electricity delivery can promote energy efficiency and contribute to India's climate mitigation. In my future research, I aim to further look into it to identify and analyse potential of the model in achieving climate mitigation goals.

Decentralised participatory model has been promoted in almost all the public services. Finding evidence of its success in electricity service does not imply

that it will be successful in other public services. There is a need to study the potentials of decentralisation and users' participation in other public services to make a case for the model in all public services.

Due to limitation of time and resources, the study could not get into further details to establish a correlation between the degree of decentralisation and users' participation with level of outcomes. It is worth exploring how the intensity of decentralisation and participation is correlated with the level of improvement in service delivery.

Finally, the research finds some evidence in support of educative effects of users' participation in electricity users' association. However, the findings are not enough to make a strong case for state intervention to promote community participation for strengthening democratic institutions and practices. Further research on different forms of community participation in India and their impact on democratic institutions and practices would be useful to reach at a conclusion.

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