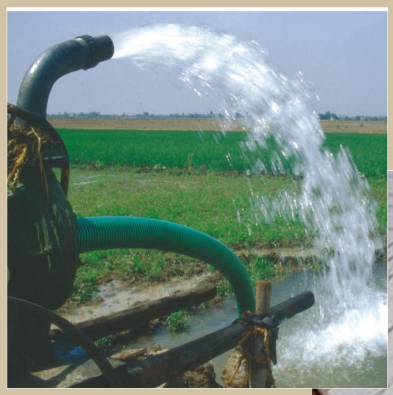
Consumer Empowerment in Electricity Reforms

– A Review from South Asia



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SAWTEE South Asia Watch on Trade, Economics & Environment

Unnayan Shamannay

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Consumer Empowerment in Electricity Reforms – A Review from South Asia

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Abbreviations

ADB	Asian Development Bank
ARR	Annual Revenue Rate
BCs	Beneficiary Committees
BERC	Bangladesh Energy Regulatory Commission
BPDB	Bangladesh Power Development Board
CAB	Consumers' Association of Bangladesh
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CESC	Calcutta Electricity Supply Corporation
CPP	Captive Power Plants
CSOs	Civil Society Organisations
CUTS	Consumer Unity & Trust Society
DESA	Dhaka Electricity Supply Authority
DESCO	Dhaka Electricity Supply Company Limited
DoED	Department of Electricity Development
DPDC	Dhaka Power Distribution Company
EGCB	Electricity Generation Company of Bangladesh
ERC	Electricity Regulatory Commissions
ETFC	Electricity Tariff Fixation Commission
GoI	Government of India
HDP	Hydropower Development Policy
IPPs	Independent Power Producers
NCT	National Capital Territory
NEA	Nepal Electricity Authority
NERC	Nepal Electricity Regulatory Commission
NHPC	National Hydro Power Corporation
NORAD	Norwegian Agency for Development Cooperation
NTPC	National Thermal Power Corporation
OPA	Office of Public Advocate
PAC	Project Advisory Committee
PGCB	Power Grid Company of Bangladesh
PLF	Plant Load Factor
PSRB	Power Sector Reform in Bangladesh

REB	Regional Electricity Board
RERC	Rajasthan Electricity Regulatory Commission
RPC	Rural Power Company
RSEB	Rajasthan State Electricity Board
RTI	Right to Information
SEB	State Electricity Board
SERCS	State Electricity Regulatory Commissions
SHG	Self-help Group
SPPs	Small Power Plants
SPSS	Statistical Package for Social Sciences
T&D	Transmission and Distribution
UMPPs	Ultra Mega Power Plants
WAPDA	Water and Power Development Authority
WBERC	West Bengal Electricity Regulatory Commission
WBREDC	West Bengal Rural Energy Development Corporation
WBSEB	West Bengal State Electricity Board
WBSEDCL	West Bengal State Electricity Distribution Company Ltd
WZPDC	West Zone Power Distribution Company

Foreword

This report is part of a pilot project on capacity building on electricity reforms in Bangladesh, India and Nepal is by CUTS International (supported by NORAD), a premier consumer organisation of India that is into research, advocacy and action. It is a commendable first attempt of its kind to examine electricity reforms in two states of India – Rajasthan and West Bengal, and in Bangladesh and Nepal. After over a decade of electricity reforms in India (less in the other countries), it is depressing to consider the state of the electricity sector in all three countries and the poor involvement of consumers in the process.

The electricity reform model for all three countries was based on a blueprint from the World Bank, the major external funding agency supporting government undertakings in the three countries. Electricity reforms were proposed to attract large investments, both foreign and domestic, required for electricity availability to improve considerably. However, the reform model was not subjected to public debate and did not have much public knowledge or support.

In the pre-reform era, governments were the dominant owners of all parts of the electricity sector and it was the national governments in each country that initiated these reforms. The reform process was not initiated out of conviction about its suitability but out of hope that interaction would attract investments. In India, state governments implemented the reforms with little conviction or enthusiasm.

The World Bank model required governments to unbundle the functions of generation, transmission and distribution that were hitherto integrated into a single government electricity enterprise; then corporatising the entities so that they could enjoy more autonomy than as government departmental enterprises and finally facilitate their privatisation. An independent electricity regulatory commission was recommended at an early stage of the reforms in order to determine tariffs equitably, and in a transparent manner, after full consultation with stakeholders and based on norms announced in advance, again determined after full consultations. All the three national / state governments studied in this survey have faithfully followed all the steps except that of privatisation.

Given predominance of government ownership, regulation was largely of government enterprises. These enterprises even when corporatised, remained under the control of Ministries and were governed by formal and informal directives issued by them. Even independent regulators were subject in practice to government authority. Since Membership of these Commissions was regarded as a post-retirement benefit, most members were retired government servants. They were mostly amenable to the wishes of their former colleagues in government,

In all of the regions studied, household access to electricity was poor (India-55 percent, Bangladesh-55 percent and Nepal-45 percent). Per capita consumption was low in relation to most other countries: 650 in India, 165 in Bangladesh and 83 in Nepal as against the global average of 3000 KW. Efficiency was poor with energy losses at 35 percent in India, 32 in Bangladesh and 25 in Nepal. Almost all countries were heavily dependent on coal as fuel; Nepal with 42000 MW of hydro potential had only 560 MW hydro capacity. Bangladesh has sizeable gas reserves, but uses practically none for power generation. An interesting observation in the Report is that Bangladesh services 7 million consumers with electricity through 70 cooperatives.

It might have been advisable for the Report not to assume that the World Bank reform model was the right model for studied countries / states. States in India like Kerala and Gujarat have shown that they function well despite not unbundling or corporatising.

The Survey seems to show that the reforms are little known to most consumers. Their opinion on the content of reforms was not sought. Consumer categories contacted included households, agriculture, commercial, industrial and non-consumers. The sample perhaps was not large enough to analyse responses by category. The majority of consumers contacted had no access to electricity from government enterprises. This was mainly due to lack of infrastructure and unaffordable tariffs. Problems common to all regions were poor metering and billing, high tariffs, poor quality of service and inadequate supply. Awareness of electricity reforms was highest in Rajasthan at 26 percent, and lower at nine percent in West Bengal, two percent in Nepal, and 11 percent in Bangladesh.

This is a pilot survey and no doubt the full surveys to come will fill in more gaps in information / awareness. Some of the gaps are: awareness of the cost of generating and distributing electricity and willingness to pay for electricity; unexploited new modes of electricity provision; awareness of citizens about the contribution they can make to tariff regulation; and finally information on citizens' preferences in regard to private supply vs government supply.

This pilot project already has some directions for policy. However, the role of politicians in getting their communities to understand that electricity is expensive and therefore should be conserved is of utmost importance and should be emphasised by this project and similar initiatives.

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Preface

Electricity has been universally accepted as a major engine of economic growth and its consumption an indicator of the level of socio-economic development. Lack of electricity adversely affects every aspect of the economy — from production to consumption; from industry to agriculture. Given its significance, regulation of its supply and associated consumer welfare implications constitute an important subject for both advocacy and research.

In South Asia, governments have historically been solely responsible for almost every function in the sector. As a strategy for accelerating development, governments invested hugely in generation, transmission, and distribution of electricity. Over the decades, though there were some commendable achievements in expansion of grid networks and generating capacity, there were significant inadequacies in government regulation and operation of this sector. Some fundamental mistakes were made: on ostensible grounds of fostering social equity, electricity supply to certain categories of consumers was provided at highly subsidised rates without any attention to cost-recovery, the consequent deficit being funded through state finances and a premium charged from industry over and above costs of supply. Such poor financial performance has been accompanied by abysmal technical performance — high energy losses, poor plant load factors etc.

Realising the growing gap between demand and supply and the inability of governments to fund the entire investment requirement, the electricity sector was liberalised in almost all South Asian countries to attract private entry. Independent regulatory agencies were set up to facilitate the neutral and enabling regulatory environment needed in this regard. These regulatory agencies were mandated to maintain a balance amongst stakeholder interests and facilitate the enhancement of economic efficiency and competitiveness.

Though consumer participation is the key to a representative, independent and balanced regulatory process, in South Asian countries consumer participation has been sub-optimal, poorly informed and therefore of poor quality. Most consumer groups lack 'resources to comprehend'/'take up issues' related to electricity regulation. Such sub-optimal representation undermines the popularity of regulatory reforms. This state of affairs needs to be remedied through capacity building of CSOs in regard to policy advocacy so that these organisations can then empower consumers

Given the urgent need for remedial action, CUTS International with support from Norwegian Agency for Development Cooperation (NORAD) undertook an initiative in Bangladesh, twoIndian states (West Bengal and Rajasthan) and Nepal to build the capacity of consumers to participate effectively in the regulatory / policy making process and bring about improvements in electricity supply.

The project is being implemented in association with partner organisations: *South Asia Watch on Trade, Economics & Environment* (SAWTEE), Nepal; *Unnayan Shamannay*, Bangladesh; *CUTS Calcutta Resource Centre* (CUTS CRC), West Bengal and *CUTS Centre for Consumer Action Research & Training* (CUTS CART), Rajasthan in the respective territories.

As part of the project, CUTS International came out with a detailed research report, entitled "Consumer Empowerment in Electricity Reforms — A Review from South Asia". The research report was prepared under my supervision and the respective country chapters were written by Dhrubesh Regmi & Asish Subedi (SAWTEE, Nepal); Taifur Rahman (Ex Staff Member) & Monowar Hossein (Unnayan Shamannay, Bangladesh); Deepak Saxena and Amarjeet Singh (Rajasthan, India); and Keya Ghosh, Prithviraj Nath and Mrinmoy Dey (West Bengal, India). Rajesh Kumar and Udai S. Mehta, CUTS International prepared the outlines for the country chapters and drafted the synthesis paper and Siddhartha Mitra, Richa Bhatnagar and Madhuri Vasnani, CUTS International performed the role of content editors.

The report reviews the status of consumer participation in the regulatory reform process in the project countries. It concludes that most of the consumers are not satisfied with the existing complaint redressal mechanism as well as the quality of service available to them. Moreover, there is a need to conduct capacity building activities so that consumers become aware of their rights as well as responsibilities.

This Report is useful not only for researchers but also for policy makers and regulators as it provides a comprehensive review of the status of reforms and consumer participation in select South Asian countries which could pave the way forward for future regulatory reforms for ensuring effective consumer participation.

Pradeep S. Mehta
Secretary General
CUTS International, India

An Overview

1. Introduction

Electricity consumption is a crucial determinant of economic growth as well as the pace of industrialisation. The low installed capacity in project countries therefore seems inadequate for significant and sustainable economic growth. To illustrate, the per capita availability in FY 2006-07 was estimated to be 83 kilowatt-hour (Kwh) in Nepal, 163 Kwh in Bangladesh and 650 Kwh in India which appears miniscule in comparison to the world average of 3000 Kwh.

Huge investments are required to raise the installed capacity in project countries. It is also common knowledge among all stakeholders that the public sector alone would not be able to fulfil the requirement for capacity expansion. Involvement of the private sector is essential in this regard. Private participation would also improve service delivery and facilitate competition.

A related move to increase power supply comprises of the speeding up of regulatory reforms: unbundling of the integrated power utilities, privatisation and establishment of independent regulatory agencies etc. The main objective of reform is to ensure more transparency and accountability in the system, enable appropriate regulation as opposed to over and under regulation and facilitate competition.

This report is divided into four sections. The introductory section (1), briefly highlights the objectives of the RESA project and elaborates on the possible consumer benefits from the project activities. Section two lists the key steps taken by policy makers to restructure the power sector in their respective territories and thereby improve service delivery through the facilitation of competitive electricity markets. Section 3 captures the key findings of the base line consumer survey conducted in all the project territories. It conducts a comparative analysis of performance in territories on the basis of some parameters relating to consumer satisfaction and awareness of reforms. It concludes that major reforms have been initiated in all project territories except Nepal; however, most of the consumers are not satisfied with the existing complaint redressal mechanism as well as the quality of service. Moreover, there is a need to conduct capacity building activities so that consumers become aware of their rights as well as responsibilities. Section 4 draws conclusions and makes policy recommendations.

Power Sector Reforms: A Brief Overview

Post-independence, the Government of India decided to entrust the development of the electricity sector to respective states through the creation of State Electricity Boards (SEBs) under the Electric (Supply) Act of 1948. SEBs were expected to develop networks of transmission lines which till then had been quite rudimentary, and add generation capacity while operating on commercial principles.

By the 70s, however, many of the SEBs started incurring losses because of various factors including poor capacity utilisation of the thermal plants put up by them. There were many reasons for the poor performance of SEBs direct political interference in SEB operation by governments, mismanagement and poor industrial relations, and shop floor practices. Flat rate tariffs, i.e. usage charges which were nearly zero, were introduced for agricultural connections used to run irrigation pump sets. These low tariffs were sought to be covered through higher tariffs on industrial and commercial consumers. But the dysfunctionalities and distortions of such cross subsidisation became associated with increasing theft and leakages, loss of accountability, revenue collection and misreporting.

Vested interests, dependent upon the subsidies and rents generated, emerged to politicise electricity tariffs and the management of distribution. The losses of SEBs mounted and by the late 1980's expectations for these had become extremely modest – for instance, these were not expected to earn more than three percent on return on their equity capital. But even this proved to be difficult for most of them. Not only did SEBs not add sufficient capacity, but many were operating their generating stations far below optimal usage levels. This made SEBs increasingly dependent on budgetary allocations from their respective

governments and at the same time reduced their ability to add generating capacity, and most importantly carry out periodic maintenance and upkeep of their distribution assets.

It was in such a situation that the central government set up two central sector utilities; NTPC for thermal generation and NHPC (National Hydro Power Corporation Limited) for hydro power. Given the deteriorating financial performance and poor operating performance of SEBs, the onus of setting up new generation capacities fell increasingly on central sector utilities. Over the 1980s, the energy shortages and poor financial condition of SEBs continued. The need to control fiscal deficit led to initiation of reforms in the Electricity Sector in the 1990s with opening of the sector for private Independent Power Producers (IPPs).

In the backdrop of the balance-of-payment crisis in 1991, the Indian government decided to liberalise its economic policies. Many structural changes took place, including delicensing, drawing down of trade barriers, and liberalisation of foreign capital inflows – both direct and portfolio. The need to control and reduce the fiscal deficit following from macroeconomic structural adjustment considerations in the early 1990s led to the initiation of the IPP policy. Recognising that electricity and other infrastructure sectors required substantial investments in the face of resource constraints caused by fiscal tightening; the IPP policy was announced to allow investment by the private sector (including foreign capital) in electricity generation. Prior to this, save some private sector licensees operating in a few urban areas, the electricity sector was mostly in the hands of state electricity boards (SEBs) or central government owned utilities created to supplement the efforts of SEBs in generation and transmission sub-sectors[1].

'Electricity' is listed as a concurrent subject in the Constitution of India, i.e. both the Central as well as state governments can enforce rules or regulations in the sector. A few state governments such as Orissa, Haryana, Andhra Pradesh and Rajasthan etc. have enforced independent acts to initiate reforms in the power sector under the supervision of the World Bank. However, to consolidate the reform process and promote a national market for electricity, the Electricity Act 2003, which can be considered as a milestone in the power sector reform process in India (Box 1), was enforced.

Box 1: The Electricity Act 2003: Key Features

- Delicensing of generation and complete liberalisation of captive generation
- Delicensing of both generation and distribution in notified rural areas
- Permission for private entry into the transmission business which would however be subjected to detailed regulation
- Recognition of trading as a distinct activity and provision of authority to Regulatory Commissions to fix ceilings on trading margins, if necessary and thereby curb excesses
- Open access in distribution with provision for surcharge consistent with the current level of cross subsidy, which would, however, gradually be phased out
- Freedom to 'distribution licensees' to undertake generation and trading
- Reorganisation of State Electricity Boards (SEBs) which could however continue to perform the role of State transmission utilities and licensees, subject to approval from the state and central governments
- Setting up of the State Electricity Regulatory Commission (SERC) made mandatory
- Constitution of an Appellate Tribunal to hear appeals against decisions of the Central Electricity Regulatory Commission (CERC) and SERCs
- Metering of all electricity consumption made mandatory
- Provisions relating to theft of electricity made more stringent
- Permission for stand alone generation and distribution systems in rural and remote areas

In Bangladesh, the very important Energy Regulatory Commission Act 2003 was enacted as a part of ongoing reforms. In the same year, two more important policy measures were implemented, i.e. creation of the *West Zone Power Distribution Company* (WZPDC) and establishment of *Electricity Generation Company of Bangladesh* (EGCB). Following the Act in 2003, the *Bangladesh Energy Regulatory Commission* (BERC) was established in 2004. In the same year, the *Bangladesh Power Development Board* (BPDB) was granted approval to become a holding company. In 2006, yet another company named *Dhaka Power Distribution Company Limited* (DPDC) was incorporated and a policy guideline for power purchase from captive power plants (CPPs) was also prepared.

1. Pandey. A and Morris. S (2009), "Electricity Reforms and Regulations – Critical Review of last 10 years experience", Indian Institute of Management, Ahemdabad

In the process of power sector reforms, Nepal has taken a step forward including preparation of a draft electricity reform bill (2002) which provides for the setting up of an independent regulatory agency and unbundling of the integrated Nepal Electricity Authority (NEA.) An important consideration behind these reforms is the need for fuller utilisation of hydropower potential: only 1 percent of the available potential of about 40,000 MW has been tapped so far.

The transformation of regulatory regimes in many developing countries involves a move to make the regulatory decision making process more transparent and participatory. The reform processes in the three project countries require various stakeholders such as governments, regulators, utilities, consumers and media to play a more proactive role in regulation so that these becomes more consumer centric. Consumers can perform the role of watchdogs in regard to the performance of utilities as well as regulatory bodies.

Need for Capacity Building

In spite of a good mechanism, public participation in many cases has been inadequate in terms of both quantity as well as quality and therefore ineffective with no salutary effect on the quality of regulation which has continued to remain poor. Electricity is a complex sector in which effective participation by consumers is a must. Generally, consumers are required to participate in the tariff fixing process and framing of regulations on various important regulatory issues such as licensing, quality of service standards, complaint redressal procedure etc. Thus, there is a need to build the capacity of CSOs to understand these and related issues.

In developed countries such as UK, US, Australia etc., the Office of the Public Advocate (OPA) has been constituted within or in association with the regulatory agencies. Promotion of consumer participation and protection of their interests are some of the important responsibilities being carried out by the OPA. However, in the project countries, a formal arrangement to enhance the capacity building of CSOs is missing and the filling of this vacuum through other means is imperative.

Information asymmetry also impedes effective consumer participation. The basic premise of independent regulation is that it provides each stakeholder due institutional space and opportunity to participate in the process. Independent regulation promises balanced decision making in line with stated policy objectives set by the government. While the electricity companies are well equipped with adequate information and appropriate tools, consumers do not have access to reliable information which hampers their ability to intervene effectively in the regulatory process.

It is not just the numbers but also the quality of intervention made by consumer representatives that matters. Most consumer groups lack the capacity to comprehend issues related to electricity regulation or resources to take up these issues in a consistent manner. Ironically, in India, it has been recorded that large numbers of consumers have taken part in public hearings. But due to the absence of required capacity, CSOs or consumers have failed to make successful appeals in front of the concerned regulatory bodies. The sub-optimal representation of consumer interests undermines the progress of the regulatory reforms.

Thus, enhancing capacity of consumer representatives and other non-state actors is vital for ensuring effective and participatory regulatory governance in the sector. This involves engaging these groups and equipping them with necessary information, knowledge (on process and contents, both) and skills so that they perform the role of effective watchdogs and effective facilitators of regulatory reforms.

RESA Project

In light of the discussed lack of capacity of consumers to effectively participate in the regulatory process, CUTS International with the support of NORAD is undertaking an initiative over two years (2008-2010) in Nepal, Bangladesh, and two states of India – West Bengal and Rajasthan – to build the capacity of consumer groups / CSOs in action oriented research, and advocacy with policymakers and regulatory agencies.

The project is thus being implemented in association with partner organisations with the following objectives:

- Facilitate effective incorporation of the views of consumers and civil society in policy formulation and design of regulatory processes in the electricity sectors of project countries;
- Strengthen capacity of civil society to take up action research and advocacy on regulatory / policy issues in the electricity sector;
- Encourage regional co-operation and experience sharing on the subject through networking; and
- Create a vertical mechanism to transmit concerns / views from the grassroots to the policy level and vice-versa, as well as horizontal linkages among different players at the same level.

2. Power Scenario and Reform Initiatives

India

Historically, in all the project territories, the power industry was initially structured as an integrated monopoly under public ownership. All the major functions – generation, transmission and distribution (T&D) were discharged by a single utility. In India, the SEBs were constituted at the state level under the Electricity Supply Act, 1948. At the national level, the Central Electricity Authority (CEA) was constituted to plan and coordinate issues related to generation of T&D. Before the reforms, most of the generation capacity was owned by SEBs. In 1975, the National Thermal Power Corporation (NTPC) and National Hydro Power Corporation (NHPC) were constituted to speed up power generation in India.

Till 1991, the key functions in the power sector – generation and T&D – were mainly discharged by SEBs enjoying monopoly power in the respective areas. The key thrust of related governance (States and Central), during this period was to supply low cost electricity to consumers and ensure universal access – both rural and urban. SEBs continued providing power at subsidised rates to a few consumer categories, such as agriculture and domestic users. Consequently, the average tariff was lower than the average cost of supply in these cases. Consequent losses implied that it became difficult for the governments to expand infrastructure or even maintain existing facilities well. This led to further decline in the financial viability of these SEBs. Their commercial losses increased from Rs 4117 crore in 1991 to Rs 28445 crore in 2001 *(Economic Survey, 2000-01, Government of India*).

Post independence, the Indian government has made significant progress in adding new generation capacity. As a result, the new generation capacity has increased from 1713 MW in 1950 to 1,45,627 MW in 2008. The break up of total installed capacity is given in Table 1.

Table 1: Total Installed Generation Capacity in India

Fuel Source	MW	In percent
Thermal (Including gas capacity 14, 716 MW)	93,114.64	64.6
Hydro	36,197.76	24.7
Nuclear	4,120.00	2.9
Renewable (Wind, solar, small hydro etc.)	12194.57	7.7
Total	**1,45,626.97**	**100**

Source: Ministry of Power (www.powermin.nic.in)

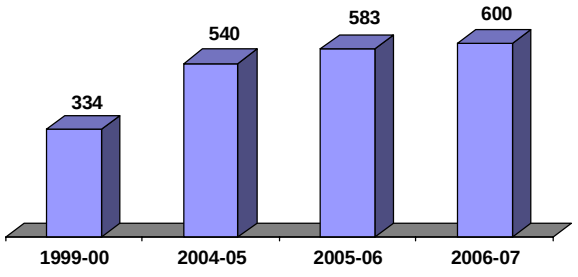
Out of this total capacity about 14 percent is owned by private players. The Government of India has given some incentives to promote private investment in the sector. The target is to add about 78,577 MW by the end of the 11th Five Year Plan (2007-2012). Another important policy initiative has been to install generation capacity though Ultra Mega Power Plants (UMPP), each with a capacity exceeding 4000 MW. The Indian government has identified nine sites in various states. The GOI has allotted four UMPPs through a competitive bidding process. Out of these, Reliance Power has been allotted three and one project has been bagged by Tata Power.

Power Scenario in Rajasthan, India

In Rajasthan, total installed capacity has increased from 3998 MW in 2000-01 to 6421 MW in 2007-08 *(Department of Energy)*. This capacity also includes the state's share in the central and shared power undertakings. The state has shown good progress in developing wind energy by commissioning capacity of 535 MW — about eight percent of the total dedicated capacity of the state.

As a result of the increase in installed capacity, per capita consumption has increased significantly from 517 Kwh in 2002-03 to 600 Kwh in 2006-07 (see Figure 1).

Figure 1: Per Capita Consumption of Power (Kwh) in Rajasthan



In spite of the enhancement of generating capacity and per capita consumption of power, the state electricity utilities have showed poor operational and financial performance. The average T&D losses were estimated to be above 40 percent in FY 2006-07. After reforms, the state utilities have controlled T&D losses, especially in the urban areas. However, losses in rural areas still remain very high.

Rajasthan has been a pioneer among Indian states in undertaking reform initiatives. These were started in the early 1990s to enhance economic efficiency and private sector participation. Later, Rajasthan Power

Sector Reforms Act, 1999 was enacted and enforced to further the reforms. Under the Reforms Act, two major institutional changes have been initiated:

- Establishment of Rajasthan Electricity Regulatory Commission (RERC), an independent agency to regulate the generation and T&D of electricity at the state level; and

- Unbundling of the integrated Rajasthan State Electricity Board (RSEB) into separate generation and T&D entities as given below:

Generation: *Rajasthan Rajya Vidyut Utpadan Nigam Ltd. (RVUN)*

Transmission: *Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (RVPN)*

Distribution: *Jaipur Vidyut Vitran Nigam Ltd. (JVVNL); Ajmer Vidyut Vitran Nigam Ltd. (AVVNL); Jodhpur Vidyut Vitran Nigam Ltd. (JDVVNL)*

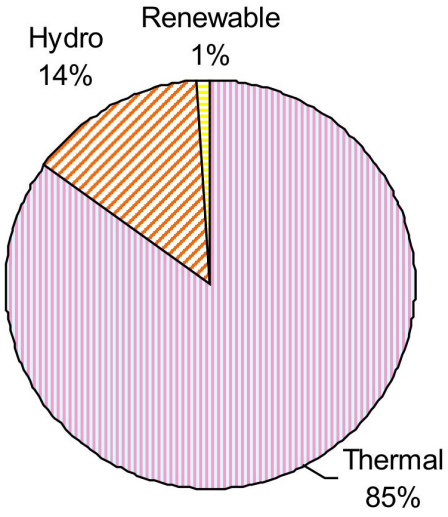
The state government owns all these five companies. Distribution companies still enjoy monopoly power in their respective jurisdictions and operate without any threat of competition. Given this model, it is the responsibility of the regulatory body to protect the interest of consumers.

Power Scenario in West Bengal

The history of power generation in India started in Kolkata (West Bengal) in 1899 with the commissioning of the first Indian (thermal) power plant. As was the case in the other states in the pre-reform period, the West Bengal State Electricity Board (WBSEB) was responsible for the entire generation as well as T&D operations at the state level with the sole exception of Kolkata. In Kolkata City, Calcutta Electricity Supply Corporation (CESC) operated the industry. The state has showed remarkable performance in terms of addition to generating capacity and in improving technical and financial performance. The total generating capacity available in the state was 7616 MW in 2008 (Figure 2).

The West Bengal Electricity Regulatory Commission (WBERC) was constituted in January 1999 under the Electricity Regulatory Commission Act 1998, a statute enacted at the national level. After its constitution, the Commission has enforced various regulations to regulate the generation, distribution and transmission operations in the state. Most of the important regulations issued by WBERC are available on its website *(http://www.wberc.net/)*.

Figure 2: Source Wise Break up of the Total Capacity (7616 MW)



Even after initiating reforms, the state continued with an integrated set up for power supply. In April 2007, the WBSEB was unbundled and three major companies were constituted - one each for generation, transmission and distribution:

- West Bengal Power Development Corporation Ltd. (Generation)

- West Bengal State Electricity Transmission Company Ltd. (Transmission)

- West Bengal State Electricity Distribution Company Ltd. (Distribution)

The state government owns all these companies. The utilities have made remarkable progress in improving their technical and financial performance. Energy losses have come down from 45 percent in 2002 to around 30 percent in 2007. There is significant improvement in the Plant Load Factor (PLF) and revenue recovery from consumers. Consequently, WBSEBCL has become one of the few power distribution companies in the country generating surplus revenue.

However, there is still a lot to do in the West Bengal power sector. About 50 percent households still do not have access to electricity. The per capita consumption of electricity is very low and was reported to be 450 Kwh in 2006-07. As per the National Electricity Policy 2005, the target is to ensure universal access and increase per capita consumption to 1000 Kwh by 2012 – a big challenge for the government

Thus, the key agenda before the government as well as regulators is to promote competition in the sector though open access. As per Electricity Act 2003, any consumer having connected loads of 1 MW and above should be able to have open access to the T&D network. Like other ERCs, WBERC and RERC have issued regulations to ensure open access. However, capacity shortages and the poor infrastructure of utilities have frustrated the attainment of these objectives.

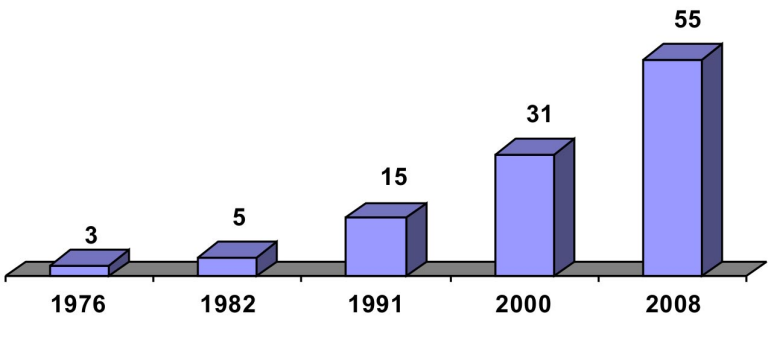
Power Scenario in Bangladesh

Before independence, the electricity sector was under private management and ownership. Electricity supply was restricted to only few areas, mostly urban. After independence, the industry was kept under public ownership and control because of the rationale that electricity is a primary mover of energy and economic development.

In Bangladesh, the absence of significant hydropower potential has resulted in extreme dependency on fossil fuels such as coal and gas. Out of the total capacity of 5269 MW, only 230 MW (four percent) is hydro based.

The aggregate capacity is also extremely low, given that total population exceeds 150 million As a result, per capita consumption was just 165 Kwh during the FY 2006-07 – one of the lowest in the world. Even this has been attained after improvement was brought about by the constitution of the Rural Electrification Board (REB) in 1977 to give pace to rural electrification. Household electrification for the whole of Bangladesh was just 43 percent in FY 2007-08.

Figure 3: Households Electrification in Bangadesh (percentage)



The power sector reforms started in the early 1990s with the unbundling of the electricity sector. Dhaka Electricity Supply Authority (DESA) was created to manage the supply of electricity in the capital city and improve technical and financial performance. However, DESA could not perform in the desired manner. The overall performance of the power sector was not satisfactory in Bangladesh. The following key constraints affecting the performance of the power sector were observed.

- Acute scarcity of resources for the huge task of developing the electricity sector.
- High systemic losses in the sector and large unpaid dues and inappropriate tariff rates & structure affecting financial viability and attractiveness for investment, domestic as well as foreign.
- Absence of clear organisational goals, adequate financial and commercial autonomy and lack of adequate incentives.
- Lack of differentiation of responsibilities for generation and T&D hindering segment specific corrective measures.
- Lack of appropriate cost and asset accounting systems and absence of effective operational performance evaluation of the different components of the electricity sector such as generation, T&D etc.

In 1993, a high-powered inter-ministerial committee on power sector reform (PSRB) was constituted in Bangladesh. Following the recommendations of this committee, a road map for undertaking reforms in the sector was drafted. In 1996, the Bangladesh Power Development Board was unbundled and a separate transmission company was created.

Two more important policy measures were implemented in 2003: creation of the *West Zone Power Distribution Company* (WZPDC) and establishment of the *Electricity Generation Company of Bangladesh* (EGCB). In 2006, yet another company named *Dhaka Power Distribution Company Limited* (DPDC) was incorporated. Other than enterprises created through unbundling, BERC was constituted under the Bangladesh Energy Regulatory Commission Act 2002. The major companies in the generation, transmission and distribution segments are given below.

- **Generation:** Bangladesh Power Development Board (BPDB); Independent Power Producers (IPPs); Rural Power Company (RPC); Electricity Generation Company of Bangladesh (EGCB)

- **Transmission:** BPDB; Power Grid Company of Bangladesh Ltd. (PGCB)

- **Distribution:** Dhaka Electricity Supply Authority (DESA); Dhaka Electric Supply Company Ltd. (DESCO); Rural Electrification Board through Rural Electric

- **Co-operatives:** West Zone Power Distribution Company (WZPDC); Dhaka Power Distribution Company Limited (DPDC)

BERC has been assigned vary important functions under the Act: regulation of tariff, licensing and maintenance of quality of service as well as promotion of competition. The functions are supposed to be discharged in a transparent and participatory manner. Given the current level of performance in rural electrification, attainment of universal access at affordable prices by 2020 would be a big challenge before the policy makers, regulators and the utilities. Electricity reforms in Bangladesh are summarised in Box 2:

Box 2: Electricity Reforms in Bangladesh

Reform Objectives

The Government of Bangladesh issued its Vision and Policy Statement on Power Sector Reforms in February, 2000, with the following objectives (GoB 2007):

1. Bringing the entire country under electricity service by the year 2020 in phases
2. Making the power sector financially viable and able to facilitate economic growth
3. Increasing the sector's efficiency
4. Introducing new corporate culture in power sector entities
5. Improving the reliability and quality of electricity supply
6. Using natural gas as the primary fuel for electricity generation
7. Increasing private sector participation in mobilising finances
8. Ensuring reasonable and affordable price for electricity by pursuing least cost options
9. Promoting competition among various entities

Components of Reform

The principal components of the reform programme have been envisaged as follows (GOB 2007):

1. Segregation of power generation, transmission and distribution functions into separate services; creation of the BPDB holding company as an apex body where generation and T&D operating companies function as subsidiaries of the holding company
2. Corporatisation and commercialisation of emerging power sector entities
3. Effective regulation through BERC for power and gas
4. Private sector participation and private-public partnership in the power sector
5. Financial Restructuring and Recovery Plan for the sector
6. Introduction of cost reflective tariffs for financial viability of the utilities and promotion of efficient use of electricity
7. Development of Demand Side Management (DSM), including energy efficiency measures, to conserve energy
8. Creation of an appropriate framework and institution to facilitate the development of alternative / renewable energy resources
9. Utilisation of captive power potential of the country through an appropriate policy framework
10. Capacity building and HRD for sector entities and corporatised bodies

Present Structure of the Power Sector upon Reform

The reform process in the power sector is not yet complete. In particular, corporatisation of various entities under BPDB is going on very, slowly. These reforms in the electricity sector can be characterised at present as follows:

1. Generation, T&D have been separated
2. Private sector participation in generation has been allowed
3. State enterprises have been corporatised mainly in distribution but to some extent also in the field of generation while some others have been transformed into private companies owned by BPDB
4. BPDB is the owner of all corporatised and decentralised parts of the erstwhile state-owned sub-systems and acts as the single buyer of electricity from both state and private generators
5. An energy regulatory commission has been put in place which has the mandate of overseeing the electricity sector as well

Power Scenario in Nepal

In Nepal despite the huge potential for hydropower, the development of the power sector has been slow and inadequate. Out of commercially viable total hydro potential of 42,000 MW, the nation has installed only 556 MW. The total generation capacity including private sector is 611 MW. Poor political will and unfocused electricity policy are the main reasons for this poor performance. As a result, consumers have to depend upon alternative sources. Traditional energy sources such as fuel wood, animal residue etc. account for 85 percent of total energy consumption. The average load shedding is about seven-eight hours per day. Thus, shortage of power has adversely affected the economic development of the country. In consumption, the share of the domestic and industry sectors is the highest and accounts for almost 80 percent of the total. As shown in Figure 4, the household sector has the largest share in total consumption.

The Ministry of Water Resources is the line ministry responsible for policy and coordination of the power sector while the Department of Electricity Development (DoED) is the regulatory agency. Apart from providing policy guidelines, the latter also facilitates private investment in the sector. The present shape of the Nepal electricity industry was given in 1984 with the enforcement of the Nepal Electricity Authority (NEA) Act. Under the provisions of the Act, the Nepal Electricity Authority was constituted in 1985 with an integrated system combining generation and T&D functions.

As a result of poor commercial outlook, the technical and financial performance of the power sector has not been satisfactory. It has suffered from many problems including high electricity tariffs, systemic losses (about 25 percent), high generation and overhead costs, over staffing and lack of consumer satisfaction. The problem is not only poor access to electricity but huge disparities in rural and urban access. Rural access was only 5 percent against urban access of 90 percent *(Kirti Chand Thakur, 2003, www.sari-energy.org/Publications/NepalPowerSectorReform/NepalPowerSectorReform.pdf).*

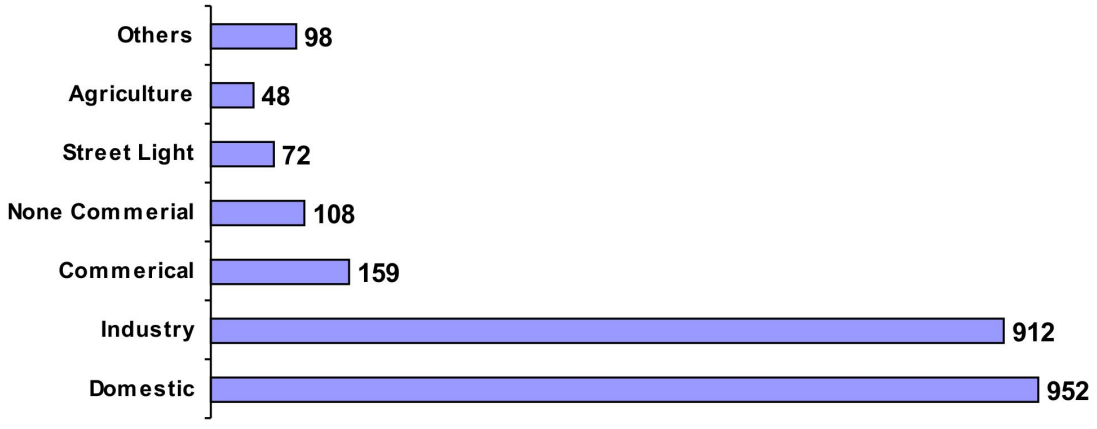
Power reforms started in the early 1990s with amendments of the NEA Act. In order to ensure autonomous status of the NEA, the following changes were made:

- NEA has the freedom to frame rules and regulations regarding personnel, administration and finance which however would have to be approved by the government.
- Tariff fixation by the Electricity Tariff Fixation Commission.
- NEA to sell, transfer or deal any amount of its property as it deems fit.
- Right to compensation from the government to NEA on account of concession / subsidy given by the government to different consumer groups.

Thus, major changes have been made in the statutes to improve the performance of NEA. In order to take reforms in the sector further, the draft electricity reforms bill is in process. In the draft bill, unbundling of the NEA to make the sector more competitive as well as the constitution of an independent regulatory commission to regulate the power sector have been proposed. The commission would also be responsible for the protection of consumer interests.

The analysis of reforms in the electricity sectors in various project territories shows that major steps have

Figure 4: Consumption by Different Consumer Categories in Nepal (Gwh)



been taken to improve service delivery. There is, however, not much information on the role of consumers which is also equally important in ensuring more transparency and accountability in this sector. For instance, the extent of consumer awareness about reforms and the complaint redressal mechanism, and consumer perceptions about the adequacy and reliability of consumption neither are issues on which there is almost no information nor are there is awareness on consumer views about regulation of the power sector, especially the tariff structure and norms relating to quality of service. Detailed analysis of consumer feedback is important to evaluate the functioning of the power sector and the quality of underlying regulation as well as to chart out an action plan for improvement. It is to analyse these important consumer perceptions that a base line consumer survey was conducted in the entire project area. The main findings of this survey have been highlighted and analysed in the next section. This exercise also enables us to undertake a comparative analysis of the performances of the power sectors in different project territories.

3. Baseline Consumer Survey: Main Findings

Survey Methodology

A baseline consumer survey was conducted in association with local CSOs in all the project territories. The main objective of the survey was to assess the awareness level at the grassroots about the need for and progress made in electricity reforms. The survey was designed to yield awareness to the following questions.

- What are the major consumer problems?
- How are consumer complaints redressed?
- Are consumers aware of the ongoing reform process?
- Are they aware of the regulatory decision making process?
- Do the consumers possess the capacity required for effective participation?
- How should consumers/CSOs be engaged to ensure effective consumer participation?

Sample Size: About 700 respondents were targeted in each of the project territories. The sample comprised all major consumer categories such as households, agriculture, and commercial stakeholders. To assign due weight to each of the consumer categories and include few non-electrified households, a purposive sample was drawn. To make the sample representative in each of the selected districts, about 60 percent of the blocks chosen for the survey were rural and semi-urban in nature. The details of area wise samples are given in Table 2.

Table 2: Sample Details of Baseline Consumer Survey

	Bangladesh	Nepal	Rajasthan	West Bengal
No of Districts	**13**	**10**	**10**	**10**
Total respondents	**701**	**700**	**700**	**700**
i) Domestic	261	339	342	320
ii) Agriculture	241	69	217	168
iii) Commercial	72	144	94	81
iv) Industrial	36	118	32	28
v) Non-consumers	91	30	15	103

Survey Method: The interview method was used to elicit the views of respondents. A standardised questionnaire was drafted after incorporating inputs from project partners as well as members of the Project Advisory Committee (PAC). The first draft was prepared in English and translated into vernacular languages to facilitate comprehension by field investigators as well as respondents.

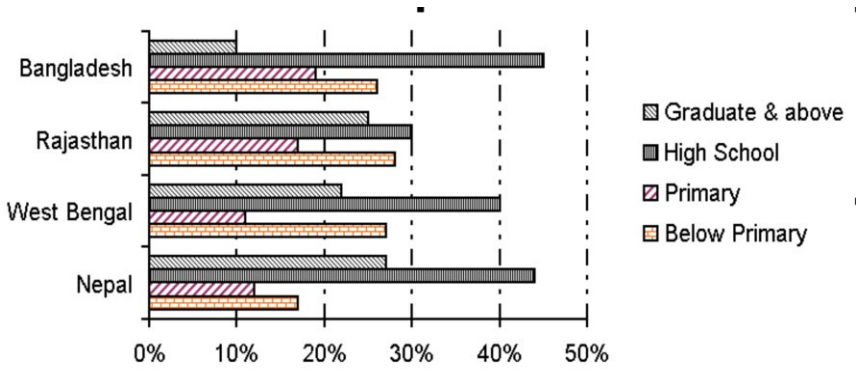
The survey was carried out with the support of local partners at the grassroots level. Each of the CSOs employed one or more of its workers to collect data from the field. Before the survey a training session was conducted for field investigators. During the training session the questionnaire was discussed thoroughly and queries were answered. The nodal persons travelled to the field to supervise work and resolve the problems faced by investigators.

Survey Findings

Education level of the respondents

Education is revealed to be a very important factor affecting the level of awareness among consumers. Thus, assessment of the education levels of respondents would be useful for conducting capacity building activities effectively. The education levels in the various project territories are depicted in Figure 5.

Figure 5: Education Level of the Respondents



As is clear from the diagram, there is considerable variation in education levels in all territories except Rajasthan. Among all education levels, 'High School' accounts for the largest percentage of respondents and is therefore also the modal category. Overall, about 60 percent of the respondents had an education level of high school or above. The high average level of education of the target audience could be very helpful in creating awareness on electricity reforms and regulations.

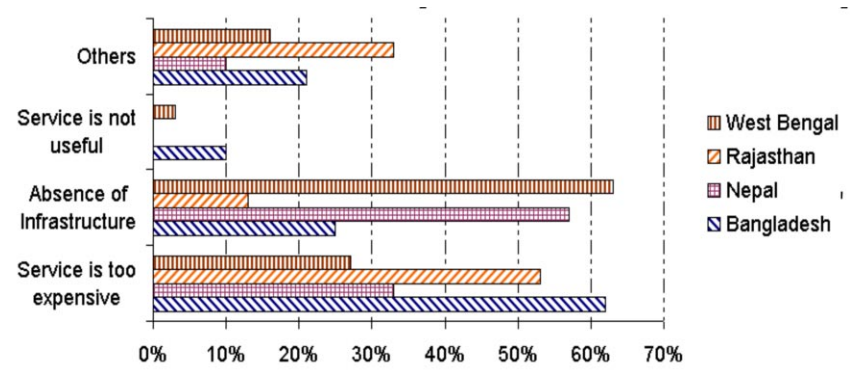
Access to Electricity

The literature survey revealed that roughly half of the households in the project territories still do not have access to electricity, the main reasons being poor infrastructure and low purchasing power of consumers. The survey findings corroborate those from the literature (Figure 6).

Above 55 percent of non-connected households in Bangladesh as well as Rajasthan stated that the connection fee as well as electricity rates were too high leading to a preference for the use of kerosene over electricity. The other important reason for not using electricity was the poor availability of infrastructure – for instance, consumers in West Bengal revealed that distances between their places of residence and nearest electricity poles were too large.

The connected consumers were asked to state major problems encountered in their areas. A menu of possible problems was listed in the questionnaire and they were asked to choose the ones relevant for them. Most of the consumers (100 percent in case of Bangladesh) stated that poor quality of service, high tariffs and power thefts were major consumer problems. However, in West Bengal the percentage of consumers complaining about poor metering and power thefts was distinctly lower than that in other territories (Figure 7). This is possibly reflective of both higher administrative efficiency and better institutional design and policy implementation in West Bengal as compared to the other territories, given that it is not very different from the others in terms of socio-economic indicators. A detailed study of relevant institutions and processes in West Bengal may yield useful lessons for the other project partners and enable them to solve the stated problems.

Figure 6: Reasons for No Access to Electricity



Complaint Redressal Mechanism

The quality of service, especially the complaint redressal mechanism, is a very important issue affecting the consumer interest at large. One of the prime objectives of electricity reforms is to improve the redressal mechanism. In the pre-reform period, no significant attention was provided to this issue. In the regulatory process, the role of the regulatory bodies is to direct the distribution companies to constitute forums for redressing consumer complaints. However, due to lack of awareness or other reasons, a majority of consumers did not register complaints, as revealed by Figure 8.

Figure 7: Major Consumer Problems in Electricity Sector

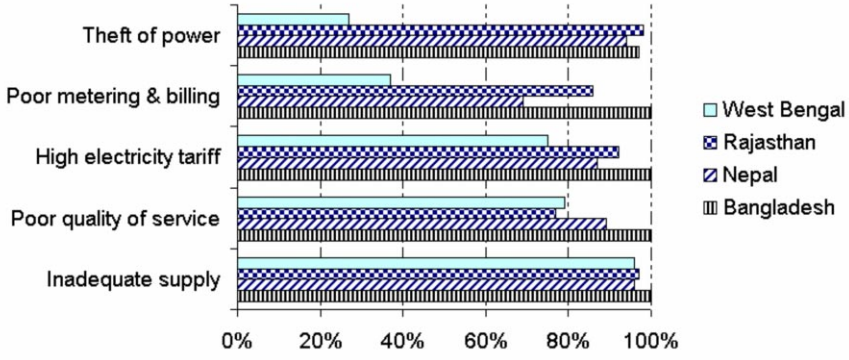


Figure 8: Percentage Share of Consumers who Registered a Complaint

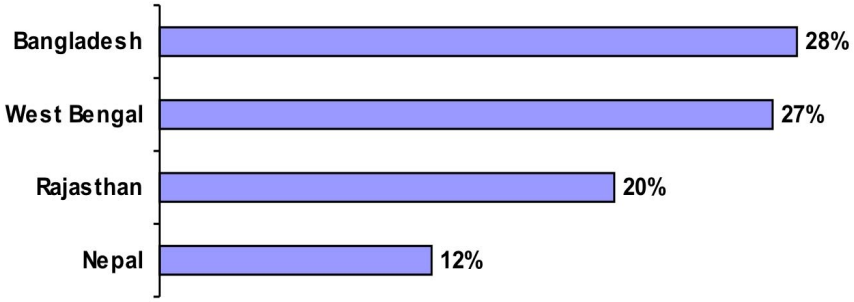


Figure 8 also reveals wide differences in the incidence of complaints across territories. In Nepal only 12 percent of consumers have ever registered complaints. This percentage is almost the same (27 percent), in Bangladesh and West Bengal but is still not satisfactory, given the poor state of infrastructure and quality of service in these project territories compared to international standards.

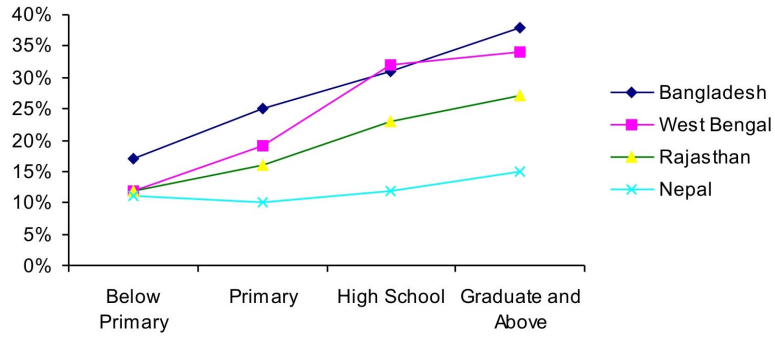
It was also tested whether the education level of the consumer significantly affected the incidence of complaints. A positive correlation between education level and the incidence of complaints was revealed, i.e. the probability of making complaints increased with the level of education.

It is evident from Figure 9 that education level is a significant factor affecting the ability and inclination of a consumer to make a complaint. The upward sloping nature of the graphs across all states leads to this finding. In the combined sample for Nepal, Rajasthan and West Bengal, only about 11 percent of connected consumers with education below the primary level ever made complaints. This number was slightly higher in Bangladesh at 17 percent.

The graphs reveal territory specific peculiarities: the overall incidence of complaints was the highest in Bangladesh followed by West Bengal for almost each level of education. In Nepal, the incidence of complaints was the lowest at each level of education, probably a result of the slow progress in electricity reforms which in turn implied poor facilities for making complaints. The tendency for incidence of complaints to increase with education was the weakest in Nepal among all territories – a finding which deserves further investigation.

We can also study the incidence of complaints across various sectors – domestic, commercial, industrial and agricultural. Figure 10 reveals that the percentage of consumers in the domestic category making complaints was the lowest in Nepal (10 percent) whereas in all other territories it was almost the same. The domestic sector shows the least variation among all studied sectors in the incidence of complaints across project regions.

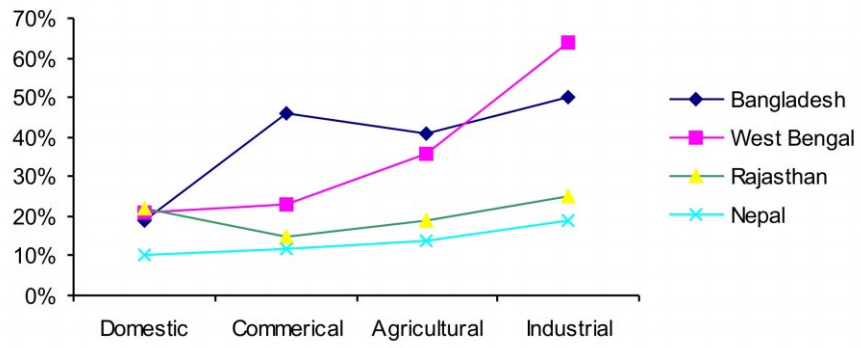
Figure 9: Education Level and Complaint Registration



Across category-territory combinations, the percentage was the highest for the industrial category in West Bengal (where 64 percent of the surveyed consumers registered complaints with the utility) and the lowest in the case of domestic consumers in Nepal (only 10 percent).

Nepal showed the lowest incidence of complaints in all the studied sectors. However, the graphs reveal some variation across sectors (but not a lot)

Figure 10: Complaint Registering Trend among Consumer Categories



in the relative positions of other project territories. For example, while West Bengal is in second place for commerce and agriculture and is tied with all partners except Nepal in the domestic sector, it is way ahead of others in the industrial sector. Rajasthan shows more stability across sectors – it is tied with all others (exceptional) in the domestic sector and is in third place in all other sectors.

A finding which emerges unambiguously across all sectors, except the domestic sector, is that the ability and inclination to register complaints is by far the poorest in Nepal and the second poorest in Rajasthan. There is a convergence in the incidence of complaints in the domestic sector among project regions but Nepal is an exception even here. Quite clearly, the inability of Nepal to initiate significant reforms is revealed by these trends.

Further, the respondents were asked the reasons for making a complaint and to provide information on the nature of complaints made. In Bangladesh, 52 percent of the complaints were against disconnection while 25 percent of the total were related to voltage fluctuation.

Figures on incidence of complaints do not convey much information about the redressal mechanism or the ability or awareness of consumers (in this regard) unless these are supplemented by other information. Therefore, respondents in the non-complainant category were asked to give reasons for not registering complaints. Various reasons were given including 'no need to complain', implying satisfaction with service. It would be quite interesting to know how the size of this group in percentage terms varied across territories (Figure 11).

As is explained in Figure 11, the percentage share of respondents stating 'No need to complain' in the broader category of non-complainants is the highest in West Bengal. This corroborates our previous findings about reforms having made considerable headway in West Bengal.

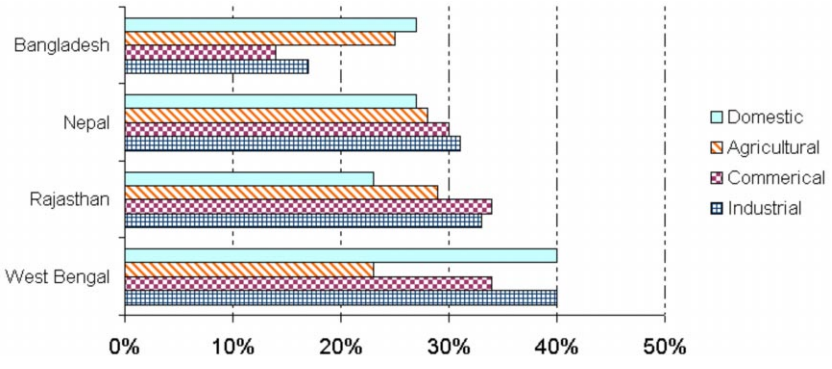
In the domestic as well as industrial categories in West Bengal, 40 percent of non-complainants have identified this option as the reason for not complaining. In the commercial sector the corresponding figure is 30-35 percent.

While West Bengal is the leader in choosing this option (which is a positive reflection on its electricity supply system) in the domestic and industrial sectors, Rajasthan is the leader for the other sectors – agriculture and commerce – at around 28 and 35 percent respectively. Quite strikingly, it is Bangladesh and not Nepal (where reforms have ostensibly been the slowest) which brings up the rear in terms of this statistic in all sectors except the domestic one.

The other important reason for not making complaints is the lack of hope from the system. More than one-third of the non-complainants said that lack of hope was the main reason for not making any complaints. Most of them offered the following arguments:

- Time consuming and overly tedious procedures (West Bengal)

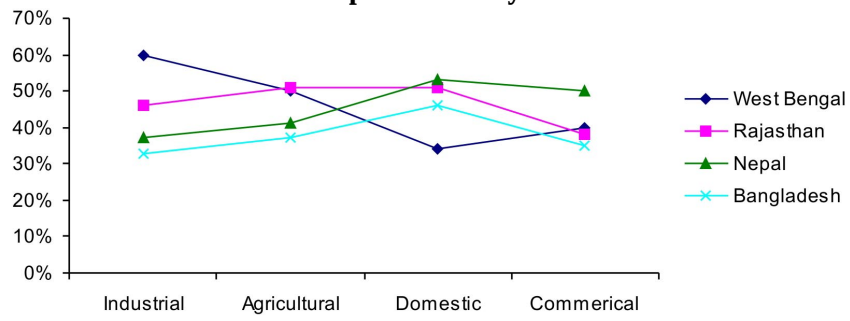
Figure 11: Percentage Share of Respondents Stating 'No Need to Complain'



- Past complaints failing to get a positive reaction. (Rajasthan)
- No hope of getting the problem redressed (Bangladesh)
- Corruption and poor response of the utility (Nepal)

The details on the relative sizes of consumer categories associated with 'No hope from the system' as a reason for not complaining are given in Figure 12.

Figure 12: Percentage Share of Respondents Stating 'No Hope from the System'



It is shown in Figure 12 that among all industry-territory combinations the percentage of non-complainants identifying 'No hope from the system' as a reason for not making complaints is the highest in the industry sector in West Bengal which ironically is the leader also in terms of 'no need to complain' as a reason. Following industry in West Bengal at the top, in terms of this statistic which reflects poorly on the system, are the domestic and commercial sectors in Nepal and the industrial sector in Rajasthan. The lowest figure is observed in the case of the domestic sector in West Bengal and immediately above it are the industrial and commercial sectors in Bangladesh.

For the most part, the above results do not reveal any clear tendency / trend – the relative positions of states vary across sectors. The only unambiguous result that emerges is that Bangladesh shows the lowest incidence of this 'negative' statistic in all sectors except the domestic one. This is a positive reflection on the utility as well as the redressal mechanism in Bangladesh. Lessons from Bangladesh's experience in this regard might be useful for the other project regions.

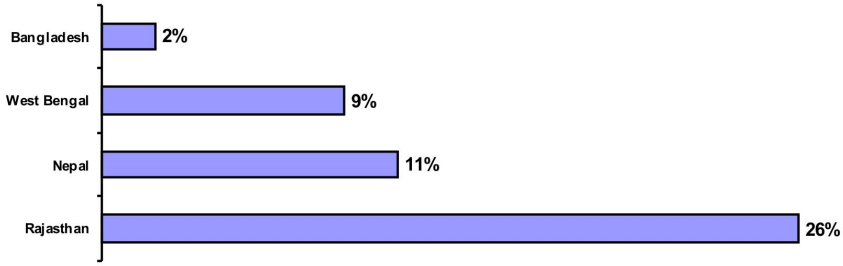
The high figures corresponding to this statistic reveal that the existing complaint redressal mechanism needs a lot of improvement to make it consumer friendly.

Awareness on Reforms and Regulation

A lot of government initiatives have been taken in various project territories. As stated in Section I, apart from unbundling of the integrated utilities, independent regulatory agencies have been constituted to regulate the power sector in Bangladesh, Rajasthan and West Bengal. In Nepal, apart from the Tariff Commission, some initiatives have been implemented to provide a more autonomous status to the Nepal Electricity Authority. A draft Electricity Reform Bill is under discussion in the country. Further, policy amendments have been made to attract more private investment in the sector.

However, most of the respondents replied that they were not aware of the reform process in their territory (Figure 13).

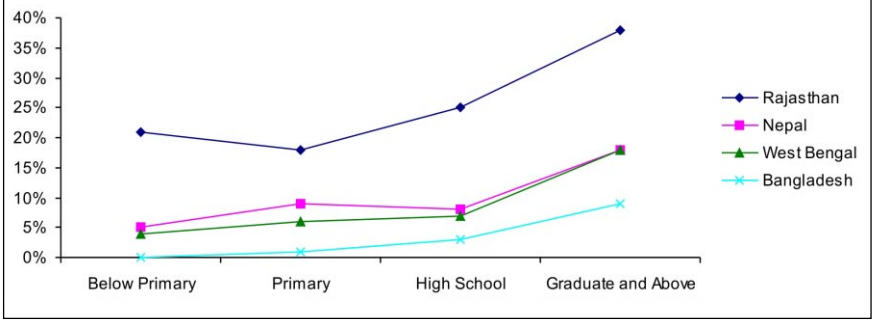
Figure 13: Percentage Share of Respondent who are Aware of Reforms



Apart from lack of efforts by the government or the regulatory body to enhance awareness, poor consumer outcomes are also a major reason for this deficiency. Over the reform period, there was no significant improvement in the quality of service or access to it.

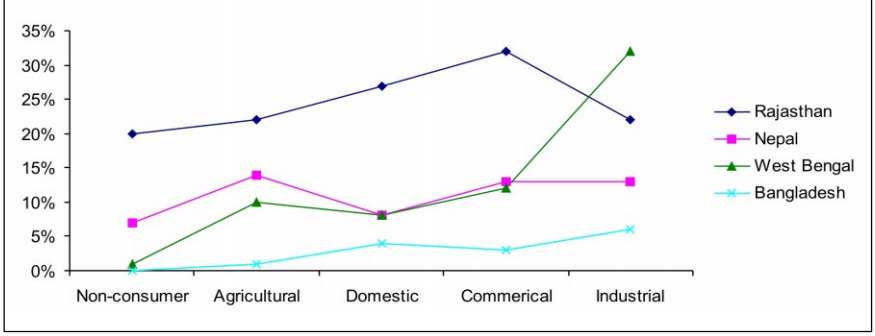
The survey results also indicate that education has a positive impact on awareness (see Figure 14). In Bangladesh, the awareness level among the respondents is the lowest for each level of education while in Rajasthan it is by far the highest. This

Figure 14: Relationship between Level of Education and Awareness about Reforms



probably implies that the regulator / government / civil society through organisations (like CUTS) has been more pro-active in Rajasthan than in the other project regions in building awareness levels.

Figure 15: Relationship between Consumer Category and Awareness on Reforms



It is shown in Figure 15 that on an average, non-connected households as well as agricultural consumers are less aware than commercial and industrial consumers. The only exception to this general trend is Nepal.

Some activities can be initiated to shore up the currently poor awareness levels. Respondents were asked to choose among options such as workshops, grassroots meetings, circulation of handouts, newspaper articles, use of mass media etc. Overall, more than one-third of the total respondents chose all these methods as viable means for raising awareness. However within these means, grassroots meetings and workshops followed by newspaper articles and handouts find favour among most respondents (Figure 16).

The survey results therefore point to the usefulness of grassroots interface meetings in building awareness and related capacity under the RESA project. Most of the respondents have also conveyed interest in attending training programmes and grassroots meetings under the project.

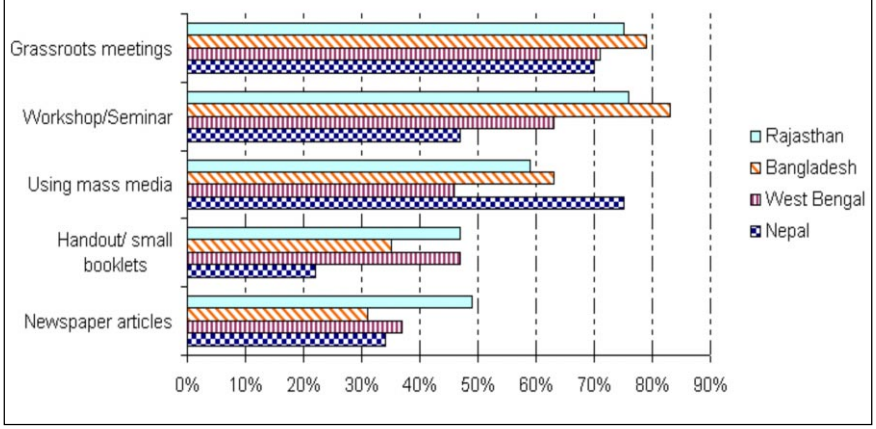
Consumer Participation in Regulatory Process

As per provisions in the respective statutes, it is mandatory for regulatory bodies to ensure adequate consumer participation in the decision making process. Consumer views need to be taken into account while framing decisions on proposals under consideration. This will not only ensure transparency in the system but also help in holding the regulators as well as utilities accountable for their decisions and performance.

Regarding whether consumers should be consulted at all in policy formulation and regulatory decision-making, about 98-99 percent respondents felt they should be consulted.

In developed countries, the office of public advocate (OPA) has been constituted to protect the interests of consumers. In India, Bangladesh and Nepal there is a lack of such provisions. Only a few state ERCs such as Karnataka and Andhra Pradesh have appointed

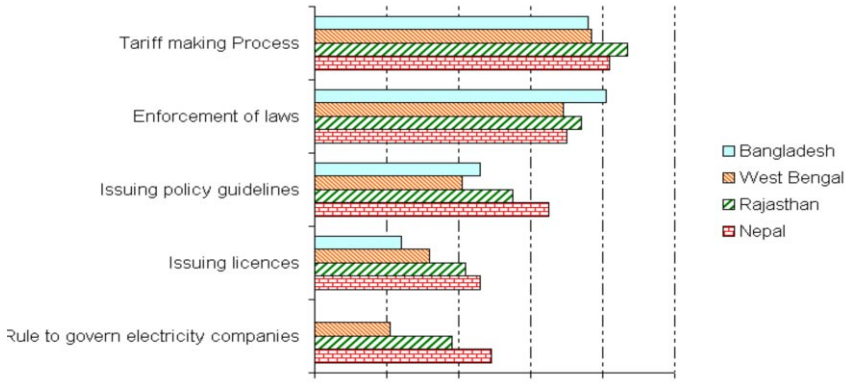
Figure 16: Effective Means to Create Awareness among Consumers



consumer representatives advocates to these offices. In Nepal, there is a provision for the consumer nominee appointed on the board to take policy decisions. However, in reality, this provision has not been implemented effectively. In Bangladesh, BERC has just started implementing a participatory mechanism.

The respondents were also asked to identify important issues on which consumers should be consulted. The responses of consumers are tabulated in Figure 17.

Figure 17: Important Issues for Consumer Consultation



More than 80 percent of the respondents in each territory stated that the tariff-making process is an important issue for consumer consultation. It is followed by the issue of enforcement of laws. Licensing and other governance regulation have been assigned lower priority. Interestingly, in Bangladesh, hardly any respondents have suggested that 'rules for governing electricity companies' are also an important area for public consultation. This observation may be a result of lack of awareness among consumers as its domain includes important regulations related to quality of service, consumer grievance redressal mechanism etc., all of which affect consumer interests at large.

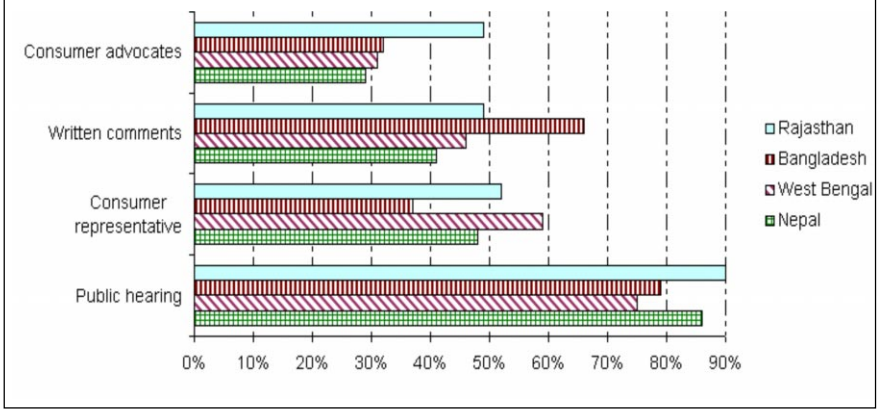
Formulation of policy guidelines is an important part of governance. As per provisions of relevant Acts, governments are authorised to issue policy guidelines from time to time. About more than 50 percent of the respondents suggested consulting consumers on this matter.

Further, consumers were also asked to shed light on effective methods that could be used by regulatory agencies for consumer consultation. Respondent feedback on this issue is captured in Figure 18.

From the figure it can be inferred that public hearings are the most effective means of consumer participation. More than 80 percent of the respondents suggested holding public hearings to protect consumer interest. Consumers preferred this to other means including submission of written comments to the commission on proposals under consideration probably because they were lacking in capacity needed for effective use of the latter mechanism. Other modes deemed effective by consumers are the appointment of consumer advocates and consumer representatives.

In India, all regulatory commissions hold public hearings on most important issues relating to regulation of the power sector including Licensing, Annual Revenue Requirement (ARR), tariff application, quality of service standards, compliance regulations etc. However, WBERC has recently stopped public hearings on ARR and tariff-related matters whereas respondents to the mentioned survey have identified 'tariffs' as the most important issue on which consumers should be consulted. Moreover, according to them, public hearings are the most suitable method for consumer consultation. Thus, the WBERC decision should be reversed and not replicated elsewhere. Instead all regulatory bodies

Figure 18: Means to Ensure Effective Consumer Participation/Protection



should give due importance to public hearings and the associated capacity of CSOs/consumers to participate effectively in the decision making process.

In Bangladesh, the BERC has issued its first tariff order for the bulk supply business. In the proposal, the generation companies had requested a 40-50 percent tariff hike. BERC provided an opportunity to all stakeholders to comment on the proposal. A public hearing was also held to take note of consumer's views. Ultimately, the Commission allowed only a 16 percent hike in the bulk supply tariff which was considerably more protective of consumer interests than the proposal made by the generation companies. Thus, the consumers have found a very useful platform to comment on tariffs, question the performance and motives of licensees and present their own views.

Out of the surveyed consumers, few respondents actually participated in the policy and regulatory process. Most of the respondents were not even aware of the process followed in decision making. The percentage of respondents who actually participated in the regulatory-decision making process is given in Table 3.

Table 3: Respondents Participated in Regulatory or Policymaking Process

	Bangladesh	Nepal	Rajasthan	West Bengal
Respondents participated	23	10	01	05
Percentage in total	3.29	1.43	0.15	0.71

Table 3 reveals that in Bangladesh only 23 respondents (3.29 percent of the total) had participated in either policy formulation or the regulatory decision making process.

Therefore, there is a need to build the capacity of consumers/CSOs to participate effectively in the decision making process. Government as well as regulatory bodies should take the lead in ensuring adequate consumer participation in the process. It includes wide dissemination of the public notice issued for comments and building capacity of consumers by organising training programmes, workshops, seminars etc.

4. Conclusion

Despite the fact the electricity is crucial for rapid economic development, the availability of electricity is not adequate in the project territories. In fact, the per capita consumption levels in Bangladesh and Nepal are among the lowest in the world. The respective governments have recognised that it would not be possible to fulfil the growing need for power without the help of the private sector. At the same time it has also been recognised that private investment will not occur unless reforms are initiated.

Reforms have been started in India, Bangladesh and Nepal to promote economic efficiency and competition in the sector. Apart from the unbundling of the integrated power utilities, constitution of independent regulatory bodies is in process. In India, including West Bengal and Rajasthan, SERCs have been established to regulate the generation and T&D business at the state level. Further, CERC has been empowered to regulate inter-state transactions in power. Important matters such as tariff, licensing, and quality of service standards have been kept under the jurisdiction of these ERCs.

The Bangladesh Energy Regulatory Commission (BERC) has also been constituted. Other than electricity, oil, coal and gas are other important areas regulated by this body. Various important functions such as tariff fixation, licensing, investment regulation etc. have been assigned to BERC. Capacity shortage among others is a major challenge before BERC.

Nepal is also on the way to reforms. A tariff commission has been established to fix electricity tariffs. A draft electricity reforms bill is also under consideration. Unbundling and open access have been proposed as key strategies for promoting private investment in the sector.

In the new era of reforms, regulatory bodies are required to function in a transparent and accountable manner. The statutes envisage active consumer participation in the decision making process. To fulfil this requirement, regulators need to hold public hearings and open consultations to seek the views of consumers on the proposals under consideration. However, it has been revealed from the baseline consumer survey that most consumers are unaware

of the regulatory decision making process. Out of the targeted respondents, hardly anyone have participated in this process. Moreover, in almost all cases such as Bangladesh, very few were aware of the reforms.

Though with reforms, some initiatives have been taken to improve the quality of the complaint redressal mechanism, consumers are still not satisfied with the existing system. Most of the consumers said that they had never registered complaints with the utilities. For example, in Nepal only 12 percent of connected respondents (those with electricity connections) have ever registered complaints. 'Poor hope from the system', among others, is an important reason for not making complaints. Therefore, there is an urgent need to make the redressal mechanism more consumer friendly.

Respondents were also requested to identify the major problems associated with the power sector. A majority identified high tariffs, poor quality of service, power thefts etc. as critical problems. In rural areas, long hour power cuts were also reported as a major problem.

One of the primary objectives of reforms is the provision of improved quality of service at affordable rates. This objective is still a dream for consumers in the project regions and lot of work needs to be done by governments, regulatory bodies and utilities in this regard with CSOs inducing and motivating them to do so. About half of the household population still does not have access to electricity in India as well as Bangladesh. In Nepal, the status of rural household access is very poor.

One positive outcome of the survey which was carried out as a part of the RESA project is the interest conveyed by consumers to know more about the regulatory decision making process and complaint redressal mechanism. Almost all of them expressed the desire to participate in the training programme or awareness meetings conducted under this project.

It is clear from the analysis that despite opportunities for consumers, public participation has not been effective in many cases. The poor capacity of consumers or CSOs to take up these issues is probably to blame in this regard. Another important reason might be the apathy of government as well as regulatory bodies or even their ignorance about consumer needs. Consumers should be provided training and financial assistance by the government and regulatory bodies to effectively participate in public hearings. Taking into account the policy changes in project territories and the scenarios at the grassroots, the following recommendations are in order.

- The reform process needs to be made consumer centric. Presently, most of the consumers are not aware of reforms. Proper support from consumers is a must for timely implementation of the reform agenda. Therefore, the government should actively engage consumers in the reform process.
- Complaint redressal mechanisms are not in a satisfactory state and need to be made more consumer-friendly through efforts from the utilities as well as regulatory bodies.
- Most of the consumers are not aware of the functioning of independent regulatory agencies. The government as well as regulatory bodies should take pro-active steps to create more awareness on the reform and regulatory process.
- Public participation has not been effective in most of the cases. Lack of required capacity among consumers is the main reason for poor participation. Regulatory bodies as well as governments should organise seminars, workshops, training programmes etc. to develop the capacity of consumers.
- Power theft and energy conservation are major consumer priorities. Support from consumers is needed to reduce power theft and the government should seek help from consumers in this regard.
- The government as well as utilities should motivate consumers to save energy. Some financial incentives for conserving power and purchasing energy efficient equipment might be needed.

Glimpses of the Project

Opening Session at the Project Launch Meeting in Kolkata, West Bengal, India, 2008

⇦

Proceedings at the National Reference Group Meeting - Phase I in Dhaka, Bangaldesh, 2008

⇨

Participants during the Territorial Training Programme in Kolkata, West Bengal, India, 2008

⇦

Participants during the Territorial Training Programme in Jaipur, Rajasthan, India, 2008

Participants during the Territorial Training Programme in Nagarkot, Nepal, 2008

Participants during the Grassroots Interface Meeting - Phase I in Udaipur, Rajasthan, India 2008

Pradeep S. Mehta, CUTS International and Dag Larsson, NORAD during the Mid Term Review Meeting in Jaipur, Rajasthan, India, 2009

⇦

Participants during the Mid Term Review Meeting in Jaipur, Rajasthan, India, 2009

⇨

Proceedings at the Grassroots Interface Meeting - Phase II in Comilla District, Bangaldesh, 2009

⇦

Participants during the National Advocacy Seminar in Dhaka, Bangladesh, 2009

⇦

Opening Session at the National Advocacy Seminar in Jaipur, Rajasthan, India, 2009

⇨

Proceedings during the National Advocacy Seminar in Kathmandu, Nepal, 2009

⇦

Chapter 1
Power Sector Reforms in Bangladesh

1. Background

Historically in Bangladesh, the government has been solely responsible for almost every function in the sector including generation, transmission and distribution. As a strategy to accelerate development, governments have been investing hugely in this sector. Over the decades, though some significant achievements have been made particularly in expansion of the grid networks and production capacities, far more remains to be done. Increase in per capita consumption of electricity and improving availability and quality of services are among the immediate priorities of policy makers.

With a view to achieve social objectives, the electricity services to certain categories of consumers have been provided at highly subsidised rates. Very little attention has been given to cost-recovery and deficit partly funded through state finances and little premium on industry. Over the years, the sector has gone from bad to worse and availability and quality of services has been constantly deteriorating. Cash-starved government owned utilities have not been able to recover their operating costs and the business model to attract fresh investments. Poor management and large operational losses, including pilferages, transmission and distribution losses made the sector un-viable and no incentives for improvements and private sector participation have been provided. This has led to significant commercial losses especially to the industry.

Production and distribution of electricity being a highly cost-intensive activity maintaining a balance between social objectives and commercial viability assumes significance. The long-term interests of consumers are being compromised to achieve gains in the short term, which at times are motivated politically. The situation has been similar across all South Asian countries.

Realising the growing gap between the demand & supply and governments' inability to fund the entire requirements, the electricity sector was liberalised and opened to the private sector in Bangladesh following the precedent set by other countries in South Asia. Independent regulatory agencies were set up to facilitate a consistent and enabling regulatory environment. One important responsibilities vested with these regulatory agencies was to maintain a balance amongst stakeholders interests (e.g. consumers, producers / sellers) and to ensure development of the sector to attain efficiency and competitiveness.

Another significant benefit envisaged for the setting up independent regulatory commissions was to bring in clarity about the roles that various actors would have in the sector. As per the new arrangement, government was supposed to confine itself to setting out a broad policy framework and facilitating effective governance in the sector. The regulatory agencies were mandated to perform day-to-day activities in accordance with the policy objectives formulated by the government. The government is expected to maintain an arm length distance with the regulator and not influence their regulatory decisions. The regulatory agencies amongst several others are vested with the responsibility to promote competition, and operational efficiencies, and to make the processes transparent and participatory.

In South Asia, independent regulatory commissions have been set up in India and Bangladesh, while Nepal is on the way to establish an independent regulatory commission. In Bangladesh, the regulatory commission is not responsible for electricity only, but has a much wider domain covering the entire energy sector. The Commission has two broad objectives:

- To frame rules and regulations to ensure transparency in management and operations as

well as tariff determination in electricity, gas and petroleum sectors.
- To protect consumer and industry interest and promote competition.

The following are the major functions of the BERC.
- Issue, cancel, amend and determine conditions of licensees.
- Determine tariff safety enhancement.
- Frame codes and standards and enforce those to ensure quality of service.
- Resolve disputes between licensees and consumers and refer those to arbitration if necessary.
- Advise the government regarding electricity generation, transmission, marketing, supply distribution and storage of energy, protect consumer and industry interest and promote competition.

1.1 Overview of Electricity Reforms in Bangladesh

Before Independence, private sector generation and distribution was confined to a few urban areas. After independence, the State took over the responsibility of all the three major functions of electricity supply and integrated them into one state monopoly, the erstwhile *Water and Power Development Authority* (WAPDA) in Pakistan period which later metamorphosed into the *Bangladesh Power Development Board* (BPDB).

Though BPDB has been in charge of generation, transmission, and distribution of electricity, these functions are technically separable and separate. BPDB's situation is not unique. State monopolies in power supply from generation to distribution have been the practice practically all over the world. The organisational structure of the electricity sector in Bangladesh around the 1990s consisted of a vertically integrated system with the Power Division of the Ministry of Power, Energy and Mineral Resources at the apex with BPDB in charge of all generation, transmission and distribution with one exception, as explained above.

Reforms in the electricity sector of Bangladesh started way back in 1977 although initially these were neither planned nor comprehensive with the creation of the Rural Electrification Board (REB), which is claimed to be one of the major successes in the sector. Under the REB, 70 large electric cooperatives called the *Palli Bidyut Samities* were established countrywide through which electricity was supplied to 7 million consumers out of the country's 9.7 million up to 2006. The interventions of the REB also had a significant positive impact on poverty reduction and social benefits in rural areas.

Since the early 1990s, unbundling of the electricity sector started. The first attempt was to create the *Dhaka Electricity Supply Authority* (DESA) to manage the supply of electricity in the capital city in a more efficient way. Unfortunately, this initiative did not perform as expected.

Officially, reforms in the power sector started in 1993 when a high powered inter-ministerial committee on Power Sector Reform in Bangladesh (PSRB) was constituted. The committee came up with three major recommendations:
- unbundling of the sector according to functional lines;
- corporatisation of sector entities; and
- establishment of an independent regulatory commission.

The Power Cell was created under the Energy Ministry in 1995 to steer power sector reforms and promote private power development. Two companies were created in 1996: the *Power Grid Company of Bangladesh Limited* (PGCB) and the *Dhaka Electricity Supply Company Limited* (DESCO).

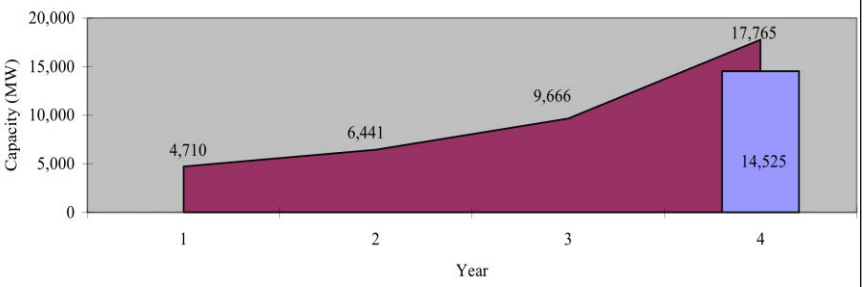
A number of policies have been adopted in the last 10-12 years. The National Energy Policy was adopted in 1996 with emphasis on sector unbundling, private sector participation and establishment of an Energy Regulatory Commission. In the same year, the Private Sector Power Generation Policy of Bangladesh was adopted. Two years later the Policy Guidelines for Small Power Plants (SPP) were approved. Subsequently, the Vision Statement and Policy Statement on Power Sector Reforms were brought out in June 2000. In 2002, the Ashuganj Power Station, one of the major power generating plants in the country, was corporatised.

In 2003, the Energy Regulatory Commission Act 2003 was enacted. In the same year two more important policy measures were implemented: creation of the *West Zone Power Distribution Company* (WZPDC) and establishment of *Electricity Generation Company of Bangladesh* (EGCB). Following the Act in 2003, the Bangladesh Energy Regulatory Commission was established next year. In the same year, the *Bangladesh Power Development Board* (BPDB) was granted the status of a holding company. In 2006, yet another company named Dhaka Power Distribution Company Limited (DPDC) was incorporated. In the same year, policy guidelines were laid down for power purchase from captive power plants (CPPs). Although

some progresses has been made over the last two decades in the power sector of the country, the overall situation of the sector still remains poor.

To achieve the goal of providing electricity to all by the year 2020, the power sector of the country has to add 14,525 MW to its generation capacity. This of course will be a daunting task given the current status as presented above. Figure 19 presents required addition to generation capacity of the country over time up to 2020.

Figure 19: Development Plan: Installed Capacity



Overall, Bangladesh has not experienced a very stable and sound political situation since its independence. Regimes have been lacking in transparency and inclusiveness.

Although most of the reform initiatives have been undertaken during democratic regimes after 1991, the effectiveness of reforms and the extent of people's participation have not been very positive. Allegations of corruption in the electricity have come to the fore in reviewing of reforms. The above evidence indicates that political will for meaningful electricity reforms has always been lacking.

2. Main Findings of the Baseline Consumer Survey

2.1 Background and Survey Methodology

Scope

A baseline consumer survey was undertaken in 13 selected districts: Gaibandha, Nawabganj, Rajshahi, Sirajganj, Gazipur, Meherpur, Jessore, Khulna, Barisal, Bhola, Comilla, Khagrachhari, Cox's Bazar to gauge the level of understanding and awareness of consumers/users regadring the scope for their engagement in the process of electricity reforms. A total of 701 respondents were sampled for survey (Figure 30).

Methodology

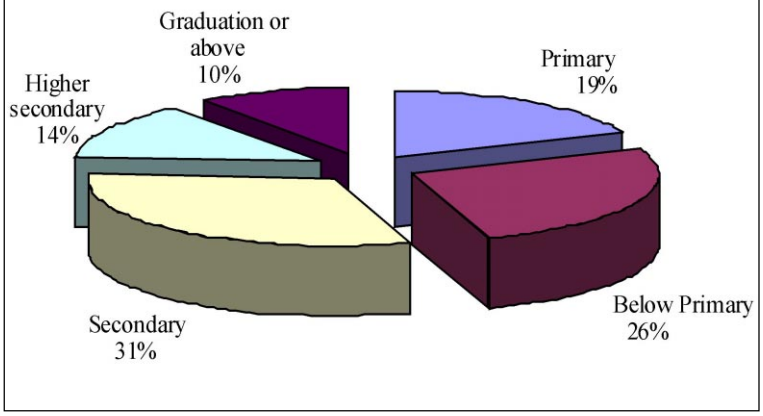
- One person, preferably head of the family or another in a similar capacity, from each household was interviewed with the help of a questionnaire.
- The survey tried to target consumers who were interested, willing to join project activities and available later for the final consumer survey.
- To maintain quality, check-back visits to review the filled up questionnaires were organised. The filled up questionnaires were finalised only after the nodal person was fully satisfied.
- In order to identify and address specific gender concerns, attempts were made to ensure adequate representation of females.

2.2 Background Characteristics of the Respondents

A review of respondent education levels (see Figure 20) reveals a mixed profile – while 10 percent of the respondents were graduates, as many as 26 percent were not even educated up to the primary level. The education profile of respondents thus provides substantial scope for awareness generation.

The composition of the sample in terms of consumer categories is fairly representative of the actual

Figure 20: Education Profile of Respondents



population of consumers (Figure 21). Note that domestic and agricultural consumers dominate, accounting for 82 percent of the sample.

Figure 21: Sample Representation of Categories of Electricity Consumers

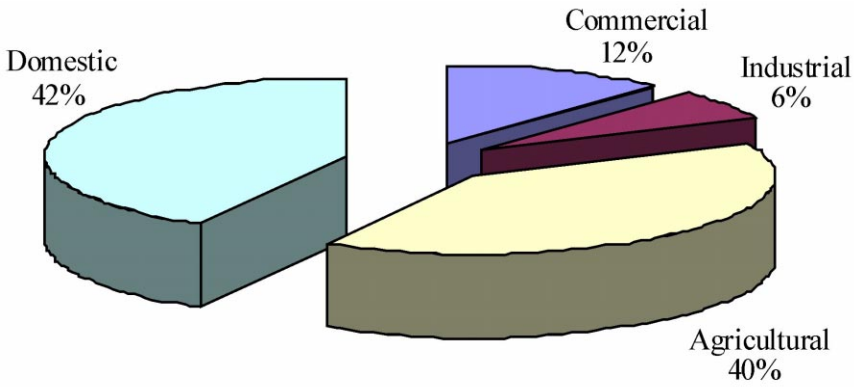
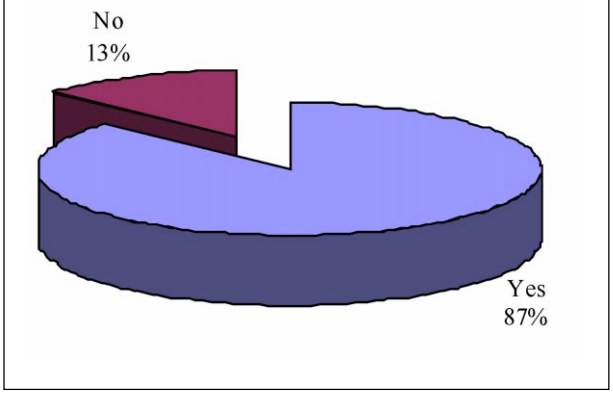


Figure 22: Proportion of Electricity Consumers among Respondents



An overwhelming majority (87 percent) of the respondents out of 701 respondents had access to electricity. This section should be given special attention in the reforms and their legitimate concerns should not go unheard.

Out of the respondents without access to electricity as many as 62 percent attributed the absence of access to lack of affordability, 25 percent to the absence of infrastructure required for a new connection and 21 percent to other reasons (Table 4). Interestingly, 10 percent of the respondents having no electricity connection did not think that electricity connections were useful for them.

2.3 Quality of Electricity Supply

A number of dimensions of the quality of electricity supply were investigated in the baseline survey. The dimensions (issues) included problems in electricity supply, frequency and durations of outages, and sufficiency of voltage.

In response to the question related to problems in electricity consumption, inadequate supply of power, poor metering and billing, high electricity tariffs and poor quality of supply were the most commonly identified problems followed by power theft (Figure 23). Thus, projects such as RESA which empower consumers to access better facilities and service through capacity building seem to be the need of the hour.

Further analysis into the problems reveals interesting results. The duration of electricity outages (load shedding) reveals an extremely dim picture of the quality of service. Close to 60 percent of the respondents did not have access to electricity for more than half of the day (Figure 24).

Table 4: Incidence of Reasons for not Applying for Electricity Connection

Reason for No Connection	Percentage of respondents not having connection
Too expensive	62
Absence of infrastructure	25
Not useful	10
Other	21

Figure 23: Problems Faced by the Electricity Consumers

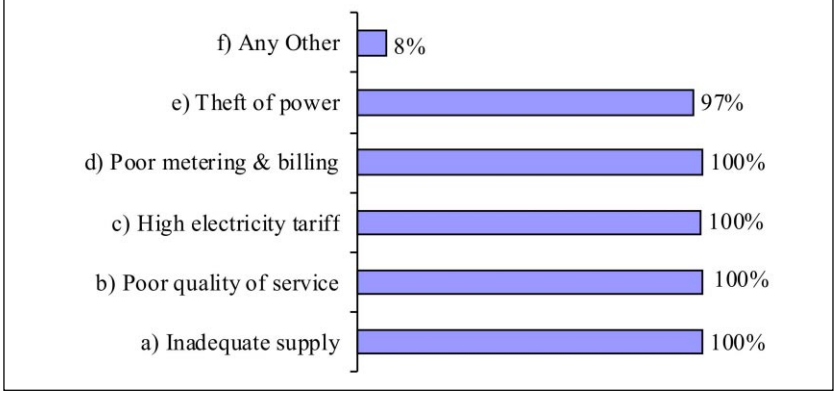
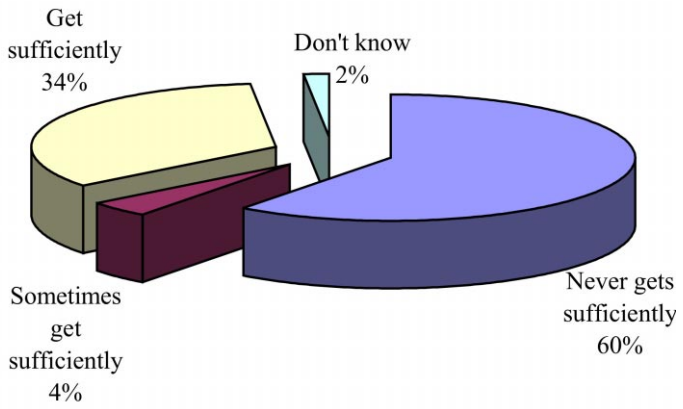


Figure 24: Sufficiency of Voltage

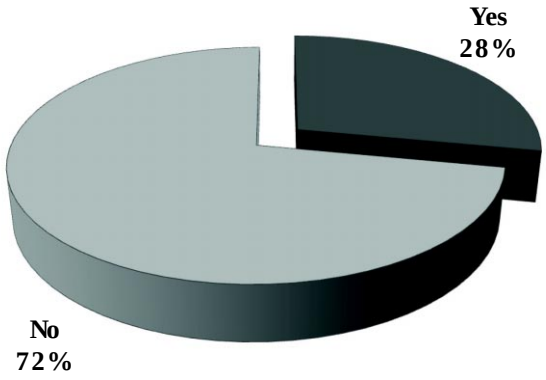


The most common complaints are regarding disconnection, fluctuation of voltages and frequent outages (Table 6). Almost two thirds of the complaints are made to the offices of the Rural Electrification Board (REB). Another one-third of the complaints go to the zonal offices (Table 7). However, almost half of the electricity consumers are not happy with the way the complaints are handled (Table 8). This is the reason why only a small percentage of consumers complain to the authorities.

Table 5: Duration of Load Shedding Faced by the Electricity Consumers

Duration of Load Shedding	Number of consumers	Percentage
Up to 4 hours	63	10.3
4 to 6 hours	7	1.1
6 to 12 hours	204	33.4
More than 12 hours	336	55.1
Total	**610**	**100**

Figure 25: Have you Ever Registered a Complaint Related to Electricity?



2.4 Handling of Complaints

Figure 25 and 29 reflects the ineffectiveness of the present grievance redressal mechanism. As 72 percent said that they had never lodged a complaint (Figure 25) and as many as 56 percent of non-complainants attributed such passiveness to the lack of hope of getting redressal (Table 9). Only around 33 percent of non-complainants attributed their not complaining to the lack of a reason.

Table 6: Types of Complaints made by the Electricity Consumers

Type of Complaint	Number of Consumers making complaints	Percentage
Meter change	13	7.8
Excess billing	16	9.6
Disconnection	52	31.3
Fluctuation of voltage	25	15.1
Excess meter reading	13	7.8
Phase problem	13	7.8
Frequent outages	21	12.7
Other problems	13	7.9
Total	**166**	**100**

2.5 Awareness of the Consumers Regarding Electricity Reforms

The baseline consumer survey reveals a very low level of awareness regarding electricity reforms in the country. Only 2 percent of the respondents knew about the reforms adopted in Bangladesh (Figure 26). This reflects that the RESA project is being launched at the right time and would create a platform to disseminate information to the consumers about the implementation of reforms in Bangladesh.

83 percent of the respondents suggested the organisation of workshops / seminars while 79 percent felt that grassroots meetings would be effective. Use of mass media, circulation of handouts / booklets, and publication of newspaper articles were considered good suggestions by a large proportion of consumers. Only 5 percent of the respondents, suggested other means to raise awareness, such as organisation of public lectures; forming of electricity consumer groups, etc. (Figure 27).

Table 7: Place of Making Complaints		
Place of Complaints	**Number of Complaint Makers**	**Percent**
Zonal office	58	34.9
REB office	104	62.7
Other	4	2.4
Total	**166**	**100**

Table 8: Satisfaction of the Electricity Consumers in the Result of Complaint Handling		
Satisfaction	**Number of Complaint Makers**	**Percentage**
Satisfied	84	50.9
Non satisfied	82	49.1

Table 9: Reasons for Not Complaining	
Reason for Not Complaining	**Percentage of Consumers not Complaining**
No reason to complain	33
No chance of getting redressal	56
Time consuming process	26
Other	2

2.6 Consumer Participation in the Electricity Reforms Process

All the respondents of the baseline consumer survey were of the opinion that consumers should be consulted by the government while formulating policy and regulations on electricity. More than 81 percent of respondents opined that consumers should be consulted in enforcement of law and more than 76 percent felt that they should be consulted in the tariff formulation process. The other areas of consultation included formulation of policy guidelines and issuing licenses (Table 10).

The respondents of the baseline consumer survey provided suggestions regarding desirable methods of public consultation from a list provided to them. Most respondents opined that consultations should be done through public hearings and written comments. A few other respondents (69 percent) suggested appointment of consumer representatives and consumer advocates (Table 11).

However, till date the participation of electricity consumers in the regulatory decision making has been almost nil. Only 3 percent of the respondents were able to remember engaging in some sort of participation, but were not sure of the details (Figure 28).

Almost all the respondents were of the opinion that capacity building on issues relevant to electricity reforms were required to enable them to comprehend the issues and participate effectively in the electricity reform process (Figure 29).

Figure 26: Percentage of Consumers Aware of the Ongoing Electricity Reform Process?

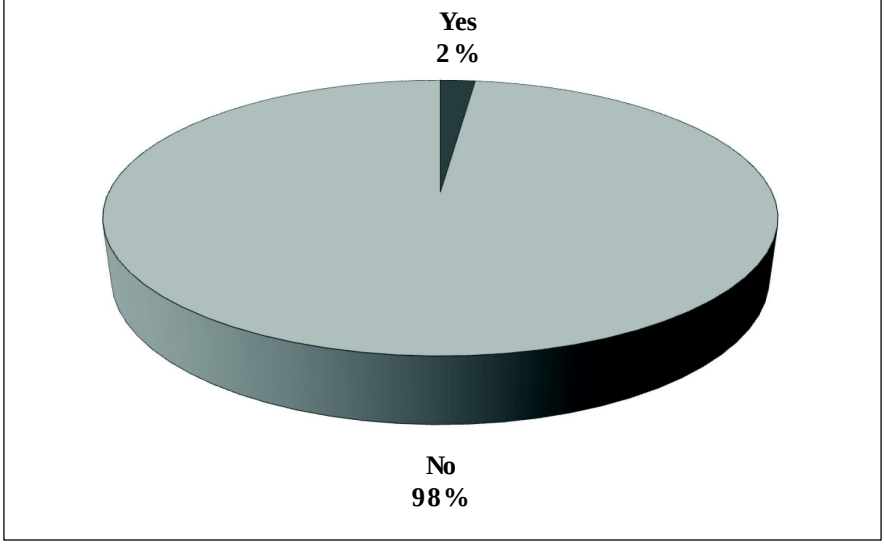


Figure 27: Suggestions to Enhance Consumer Awareness Level

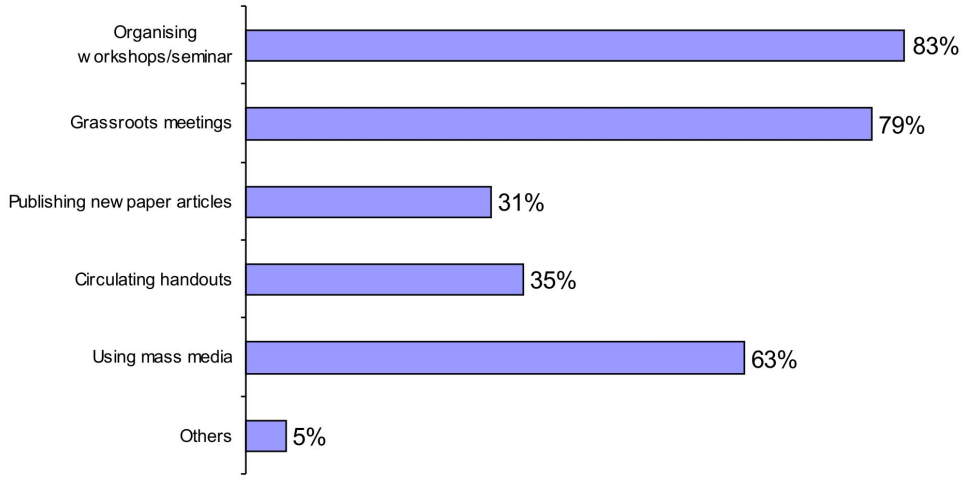


Figure 28: Have you Participated in Policy and Regulatory Decision-making Process?

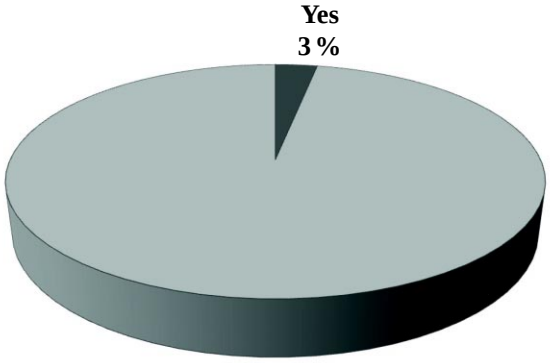


Figure 29: Would you like to Attend a Training Programme on Electricity Reforms Issues?

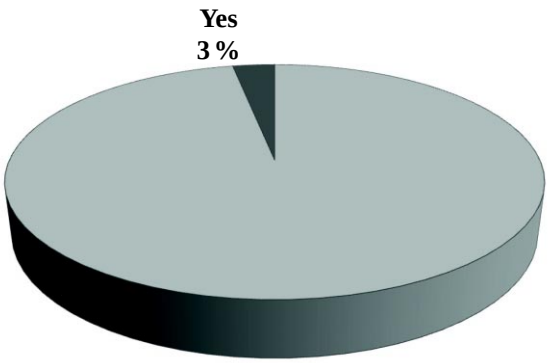


Table 10: Important Areas of Consultation with Electricity Consumers

Areas of Consultation	Percentage
Enforcement of laws	81
Formulating policy guidelines	46
Issuing license	24
Tariff fixing process	76

Table 11: Possible Means of Consultation

Possible Means of Consultation	Percentage
Public hearing	79
Written comments	66
Consumer representatives	37
Consumer advocates	32

3. Role of Consumers and CSOs in Electricity Reforms in Bangladesh

The process of reforms in electricity in Bangladesh so far has been highly bureaucratic and devoid of consumer participation and consultation. The reforms initiatives described above have been highly centralised and devoid of consumer consultation and participation. Even the parliamentarians have been bypassed in most cases as hardly any of the policies have been raised for discussion in the parliament.

The Bangladesh Energy Regulatory Commission Act 2003 has introduced some provisions for consumer participation in the regulatory processes to be carried out by the Commission. In fact, one of the main thrust of the Act is to protect the interests of consumers in energy in general and electricity in particular. The provisions such as the one in regard to public hearings, if implemented properly, can really ensure consumer participation in electricity regulation. However, till date implementation has been poor. The quality of public hearings organised by the BERC has always been doubted. Thus, ensuring consumer participation in the regulatory process still remains a challenge which needs to be addressed urgently.

Bangladesh's civil society continues to grow and become more vocal on a range of issues. On electricity issues however, Bangladesh has less of a history of public participation, to the detriment of consumers. In the province of Kansat, several consumers who were protesting electricity quality and prices were killed by the police in early 2006. To make matters worse, the electricity supply situation continues to deteriorate, averaging at least several hours of blackouts a day. Thus, it has become even more important for consumer groups to become involved in electricity issues. The RESA Project should help in this regard.

4. Rights and Responsibilities of the Electricity Consumers

Consumers have the right to energy in terms of accessibility, affordability, continuity and sustainability. The consumer movement has long recognized that energy is of fundamental importance to public welfare and the well-being of consumers worldwide. The satisfaction of basic needs is one of the basic rights of consumers. The provisions of energy, sustainable consumption and its impact on the future are key challenges being faced by Bangladesh especially for poverty alleviations. At the same time, there is a need to develop energy services which are financially, environmentally sustainable and within the limits of consumer affordability.

A major problem threatening the sustainability of the sector is the high incidence of power theft. Power theft leads to violation of rights of the electricity consumers as it results in deprivation of genuine consumers from proper supply of electricity. The electricity consumers came up with a wide range of opinions regarding power theft. The different categories of opinions are presented below:

Issue	Opinions
Judgment	• Power theft is an offense or a crime; it should be stopped anyway. • Power theft creates social tensions and economic problems.
Causes of power theft	• A fixed line rent is one of the causes of power theft. • If power was available to all, there would be no theft.
Who are responsible?	• Electricity department has the overall responsibility. • People having technical knowledge regarding electricity supply are the ones who are involved.
Recommendations	• Awareness of the masses is required. • Mobile courts should be run to stop theft. • A social movement is required. • Administrative measures are essential. • Effective law enforcement is the need of the hour. • Those involved in power thefts should be punished. • Capacity of consumers needs to be enhanced through meetings, trainings and workshops. • Consumers have to launch strong protest against power theft. • Authorities need to be notified about power thefts on a regular basis.

Alongwith rights, energy (electricity) consumers have the following responsibilities according to those surveyed:

- To be alert and question the price & quality of electricity being supplied.
- To assert and act to ensure that they get a fair deal. As long as consumers remain passive, they will continue to be exploited.
- To be aware of the impact of consumption of electricity on other.
- To understand the environmental consequences of electricity consumption. The consumers should recognise their individual and social responsibility to conserve natural resources and use renewable energy.

There are different ways through which the consumers can be made aware about their rights and responsibilities. The following are some of those.

- Through media: media people need to be oriented properly and consumer organisations should provide relevant information to the media.
- Arranging seminars, symposiums, dialogues, workshop etc. ensuring participation by consumers.
- Distribution of educational materials such as pamphlets, leaflets, posters etc.
- Incorporating consumerism in the educational curriculum alongwith discourse on rights and responsibilities of all consumers including those consuming electricity.
- Involving social actors, leaders (e.g. imams, priests, teachers, local government representatives).
- Awareness building by BERC among consumers.

In light of the above, the RESA project hopefully is going to contribute significantly in terms of developing such an environment favourable for capacity building to establish the rights of consumers and stimulate awareness of responsibilities. The areas of intervention designed in the RESA project touch almost all the areas discussed above. Some of these interventions have been inspired by findings of the consumer baseline survey.

5. Conclusion and Recommendations

It is evident from the discussion presented in the paper that the reform process has made some progress though much remains to be achieved. Unbundling has been accomplished to some extent with scope for further work. Some corporatisation has been achieved although the pace has been rather slow. Although policies for promoting IPPs have been adopted but in reality hardly any progress has been made.

As noted, lack of autonomy, hesitant ownership of reforms, lack of transparency and lack of public consultation appear to be the norms in the sector's governance. Inspite of the reforms the outage situation has deteriorated continuously over the past 3-4 years. Drying up of investment resources for both public and private sources has been a major roadblock. On the distribution side, major system losses and lack of reconciliation of metered imports and sales / exports remain major technical problems.

As evident from the findings of the baseline survey, the level of awareness of the electricity consumers is very poor and there has hardly been any participation of the consumers in the policies and reforms undertaken in the sector. Therefore, consumers' interests in the sector have hardly been protected.

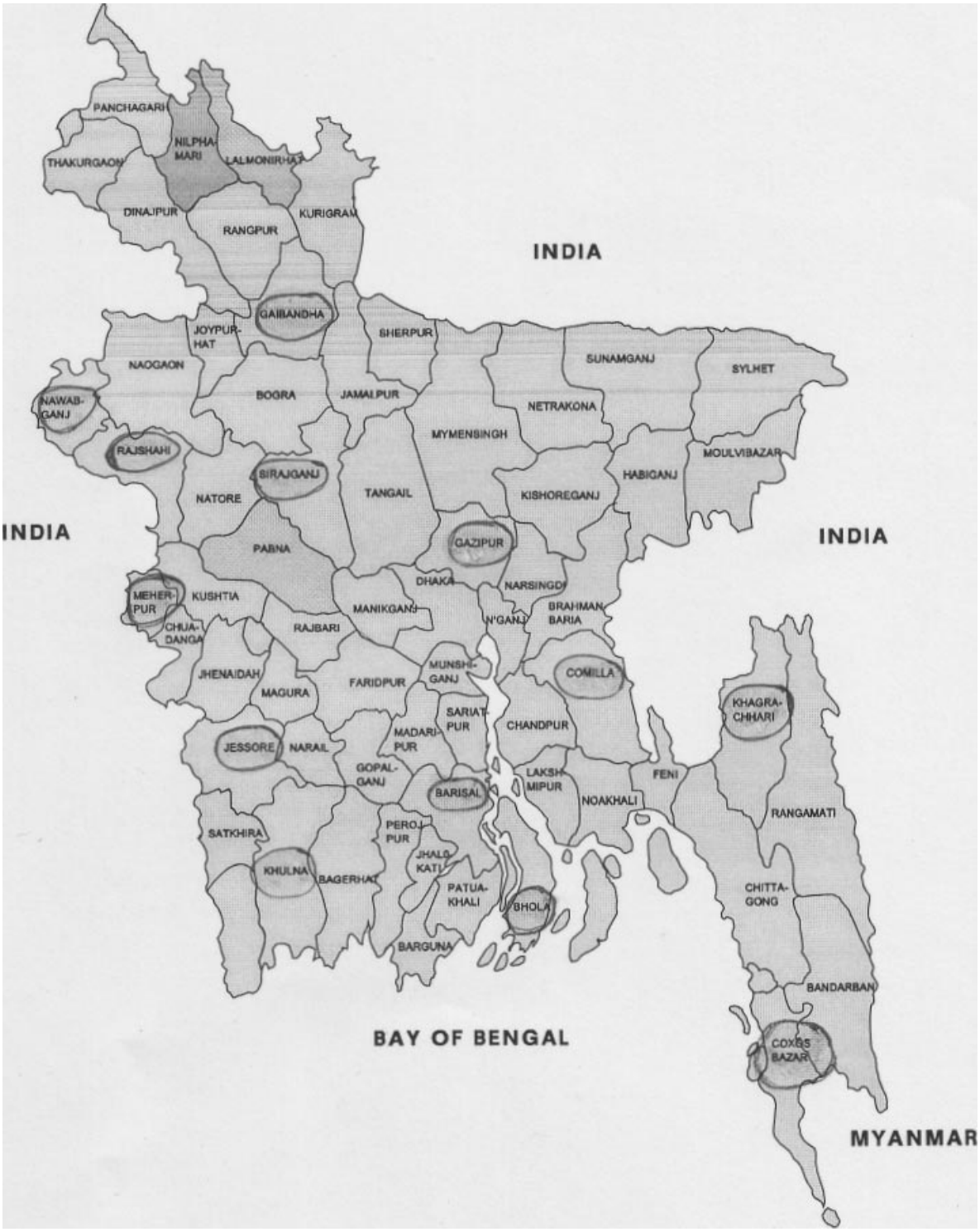
Given this backdrop, the RESA project aims at enhancing capacity of the electricity consumers through CSOs so that the consumers and CSOs can participate effectively in the decision making and regulatory processes.

Recommendations

In light of the situation described in this paper and the issues raised, the following recommendations in regards to reforms and consumer participation has been made:

- Strengthening the BERC to ensure effective participation of electricity consumers and protection of their rights.
- Review of mechanism already existing within the current regulatory system regarding consumer participation consisting tools such as public hearing.
- Need to build capacity of all stakeholders in the sector. However, utmost importance should be given on developing the capacity of the electricity consumers and CSOs working for establishing consumer rights. Apart from NGOs and donors, the government, particularly the BERC should come forward to expedite the process of capacity building.

Figure 30: Map of Project Areas in Bangladesh



Chapter 2
Power Sector Reforms in Rajasthan

1. Electricity Reforms in Rajasthan

1.1 Why Reforms?

Electricity is the engine of economic and even social development. The biggest problem facing the electricity sector of a developing country such as India is mismanagement and lack of commercial planning. The State Electricity Boards (SEBs) were constituted under the provisions of the Electricity Supply Act, 1948, to discharge the functions of generation, transmission and distribution (T&D) at the state level. When the state started to provide electricity in the post- independence era, it felt compelled to cross-subsidise across classes of consumers. When positive and negative net revenues from subsidising and subsidised consumer categories did not cancel out, the financial losses of SEBs and consequently their dependence on state governments increased. In other words, most of the SEBs incurred heavy financial losses and became dependent on financial support from their respective state governments.

The introduction of subsidies also made the electricity market inefficient and there was lack of incentive to perform with economic efficiency. This resulted in high T&D losses, skewed tariffs, poor quality of supply, weak and deteriorating T&D network and rapidly declining capability of state governments to provide budgetary support to the power sector. States in India were characterised by more or less similar conditions and Rajasthan was no exception. Realisation of the need for urgent steps to reinvigorate the sector led to reforms.

1.2 Reform Process

1.2.1 Pre-Reforms Scenario

In the power sector, the government was the producer, distributor and financier, and enjoyed monopoly control of the sector. It set prices, decided upon production, rationed or cut power and determined subsidies. In the Indian democratic set up, since the government is formed politically, political factors played a crucial role in all decisions which led to further deterioration in the situation. Though under the provisions of the Electricity (Supply) Act, 1948, SEBs were constituted as autonomous bodies for performing the electricity business independently, they fell prey to state level political compulsions which subsequently led to bankruptcy.

Like other SEBs in India, the Rajasthan State Electricity Board (RSEB) was characterised by problems of frequent service interruptions, high system losses, unexpected voltage and frequency swings, restrictions on demand, poor cost recovery and heavy commercial losses. Reforms and the mobilisation of private investment thus became necessary.

1.2.2 Immediate Post-Reform Scenario

In 1993, the Government of Rajasthan decided to reform its power sector with the objective of creating conditions for sustainable development of the power sector and improving the efficiency and the quality of service to consumers by allowing private participation in the state power sector, particularly in generation.

Box 3: Rajasthan's Reforms Programme

- Enactment of the Rajasthan Power Sector Reforms Act, 1999
- Establishment of an independent Rajasthan Electricity Regulation Commission (RERC)
- Unbundling of the SEB and incorporating separate companies for generation, transmission and distribution functions

The loss-making Rajasthan State Electricity Board (RSEB) was divided into three independent electricity distribution companies (discoms) — Jaipur Vidyut Vitaran Nigam, Jodhpur Vidyut Vitaran Nigam and Ajmer Vidyut Vitaran Nigam, operating in the Jaipur, Jodhpur and Ajmer areas, respectively. An independent regulatory authority — the Rajasthan Electricity Regulatory Commission (RERC) — was established in December 1999 to oversee tariff-setting, and to monitor the quality of service delivery by the three newly established distribution companies. RERC was empowered to issue transmission and distribution licenses; to encourage competition; to promote transparency, efficiency and economy in the operation and management of Rajasthan power utilities; and to ensure a fair deal to the customers.

Subsequently, some other positive developments took place which are listed below:

- Policy for *Promoting Generation of Electricity through Non-Conventional Energy Sources* was issued in 2004 to encourage the use of non-conventional energy sources such as solar and wind-based energy;
- *Open Access Code* to boost competition;
- *Captive Power Plants Policy;*
- Preparing for introduction of '*Private Participation in Distribution'* of electricity;
- A massive *Feeder Renovation Programme* – the target in 2008-09 was to cover all 8475 rural feeders and thus reduce T&D losses by 15 percent; and
- Increase in installed electricity generation capacity.

1.2.3 Present Power Scenario

The present scenario in Rajasthan can best be described as 'very poor' and is characterised by large and increasing financial burdens on utilities and inadequate and poor quality of power supply. No major reform has taken place except the unbundling of the electricity board. The distribution companies are not working independently but continue to be under the influence of political compulsions and the same bureaucratic setup.

The tariff structure in Rajasthan is highly distorted. The price per unit changed from industry as well as commercial users is very high as these subsidise other consumer categories. Apart from socio-economic considerations, political factors are responsible for this skewed tariff structure. Poor financial health of state utilities due to huge T&D losses and power theft are a major roadblock to the development of this sector.

2. Consumer Awareness For Reform

2.1 The Baseline Consumer Survey

Under the CUTS initiated project entitled 'Capacity Building on Electricity Reforms in Bangladesh, Nepal and India (RESA)', a consumer perception survey was undertaken in 10 select districts of Rajasthan – Banswara, Bikaner, Chittorgarh, Churu, Dholpur, Jhunjhunu, Kota, Sawai Madhopur, Sirohi and Udaipur – to gauge the level of understanding and awareness of consumers / users about the scope for their engagement in the process of electricity reforms and major problems faced by them. A sample of 700 respondents comprising all categories of users was surveyed.

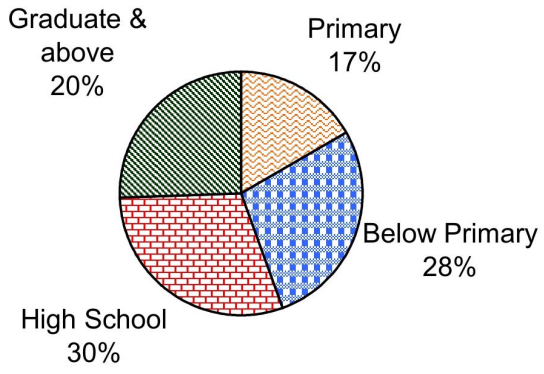
2.1.1 Methodology

- At least 60 percent of the total number of blocks in each district was covered. From each selected block a representative sub-sample was taken.
- One person, preferably head of the family or another in a similar capacity, from each household was interviewed with the help of a questionnaire.
- The survey tried to target people who were interested, willing to join project activities and available later for the final survey.
- To maintain quality, check-back visits to review the filled up questionnaires were organised. The filled up questionnaires were finalised only after the nodal person was fully satisfied.
- In order to identify and address specific gender concerns, attempts were made to ensure adequate representation of females.

2.2 Findings of Baseline Consumer Survey and Field Research

A review of respondent education levels (Figure 31) reveals a mixed profile – while 25 percent of the respondents were graduates, as many as 28 percent were not even educated up to the primary level. The education profiles of respondents thus provide substantial scope for awareness generation.

Figure 31: Education Profile of Respondents



The composition of the sample in terms of consumer categories is fairly representative of the actual population of consumers (Figure 32). Note that domestic and agricultural consumers dominate, accounting for 81 percent of the sample.

Out of 700 respondents, only 2 percent did not have access to electricity services (Figure 33) due to reasons described in Figure 34. This section should be given special attention during reforms and their legitimate concerns should not go unheard.

Out of the respondents without access to electricity as many as 53 percent attributed the absence of access to lack of affordability, 13 percent to the absence of infrastructure required for a new connection and 33 percent to other reasons. Given that lack of affordability is a major reason for non-access, the reform process should focus on special connection schemes for the poor. Lack of action on the part of the government and bureaucratic barriers to access by the grassroots need to be addressed.

In response to the question related to problems in electricity consumption, power theft was mostly commonly identified as a problem followed by inadequate supply of power, poor metering and billing, high electricity tariff and poor quality of supply (Figure 35). Thus, projects such as RESA which empower consumers to access better facilities and service through capacity building seem to be the need of the hour.

The data in Figures 36 and 37 reflects the ineffectiveness of the present grievance redressal mechanism. As Figure 36 reveals, 80 percent said that they had never lodged a complaint and as many as 49 percent of non-complainants attributed such passiveness to the lack of hope of getting redressal (Figure 37). Around 28 percent of non-complainants did not provide a reason for their not complaining.

Analysis of data reveals that most consumers are ignorant of the reform process (Figure 38). Thus, this project, apart from building the capacity of consumers, aims to create consumer awareness.

The data further reveals that a large number of consumers are not aware of the existence of the RERC and its role, functions and procedures. There is an urgent need to create awareness about the need for promoting consumer participation in deriving benefits from existing institutions (Figure 39).

Figure 32: Relative Strength of Categories of Consumers/Respondents Surveyed

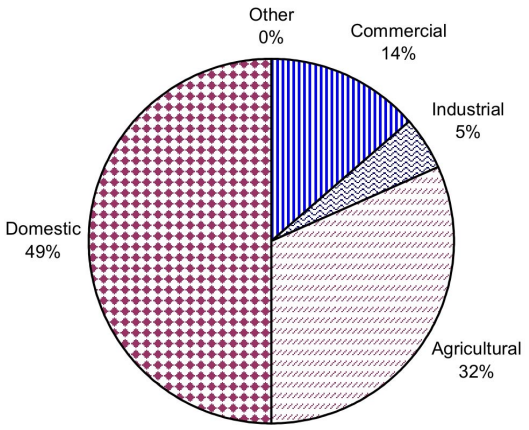


Figure 33: Proportion of Respondents with Access to Electricity

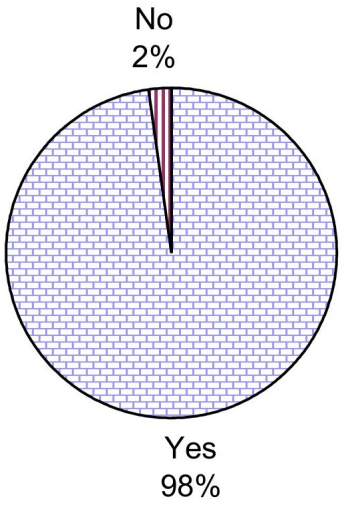


Figure 34: Incidence of Reasons for Not Applying for New Connection

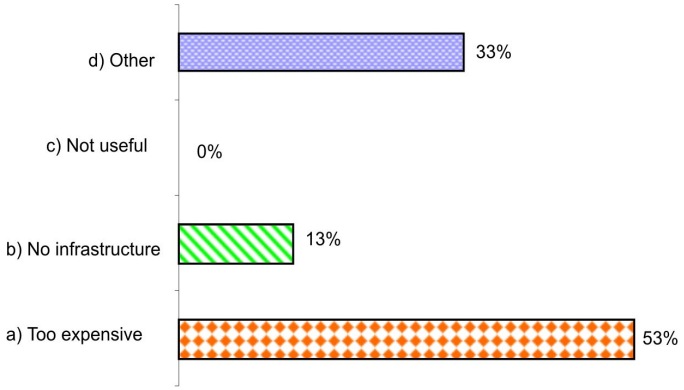
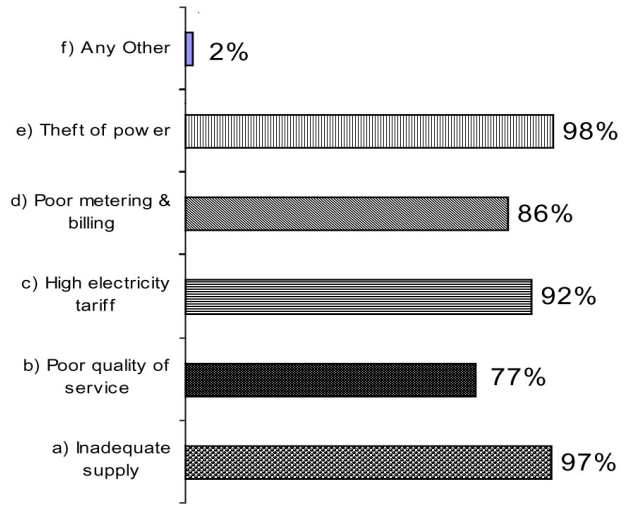


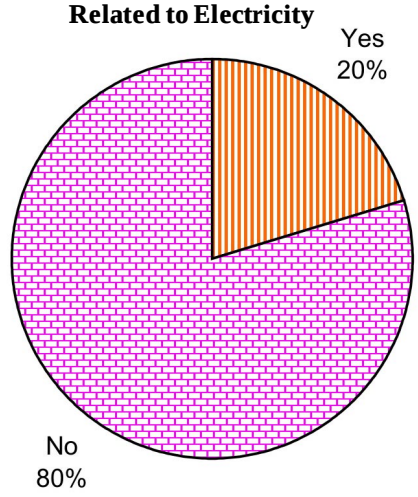
Figure 35: Incidence of Problems Facing Electricity Consumers



When respondents were asked to provide their perceptions on the state of awareness of consumers, a large proportion (Figure 40) felt that consumers were not at all aware (33 percent) while an even larger proportion felt that they were not adequately aware (65 percent).

76 percent of the respondents suggested the organisation of workshops / seminars while 75 percent felt that grassroots meetings would be effective. Use of mass media, circulation of handouts / booklets, and publication of newspaper articles were considered good suggestions by a large proportion of consumers. Only 8 percent suggested other means to raise awareness.ch as organisation of public lectures; forming electricity consumer groups, etc. (Figure 41).

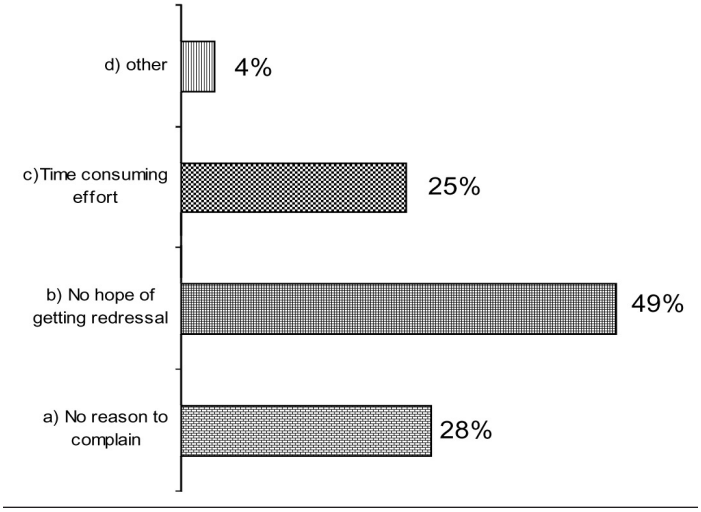
Figure 36: Proportion of Consumers Who Have Ever Registered a Complaint Related to Electricity



On being asked whether the consumer should be consulted in the policy and regulatory decision-making process, 98 percent of the respondents gave an affirmative answer. This implies that consumer consultation on these issues should be promoted more vigorously and effectively, thus justifying the main objective of the project (Figure 42).

Each respondent was asked to identify areas that seemed important to him / her from the point of consultation. These perceptions are an important input into advocacy efforts to influence the agenda of electricity regulators regarding consultations (Figure 43). Around 87 percent of respondents felt that tariff formulation was an important topic for consultation and only a slightly smaller proportion identified 'enforcement of laws' as important. A substantial proportion of respondents identified each of the candidate area as important apart from 'any other'.

Figure 37: Consumer Incidence of Reasons for Not Making Any Complaint



Each respondent was asked to identify desirable methods for public consultation from a given list (Figure 44). The most popular choice was 'public hearings' (identified by 90 percent of respondents as desirable) followed by the use of consumer representatives, written comments and the use of consumer advocates (52, 49 and 49 percent respectively).

One of the respondents had participated in the regulatory process (Figure 45). This presents an accurate picture of the level of current consumer participation in the regulatory process and thus highlights the

Figure 38: Proportion of Respondents Aware of the Ongoing Electricity Reform Process

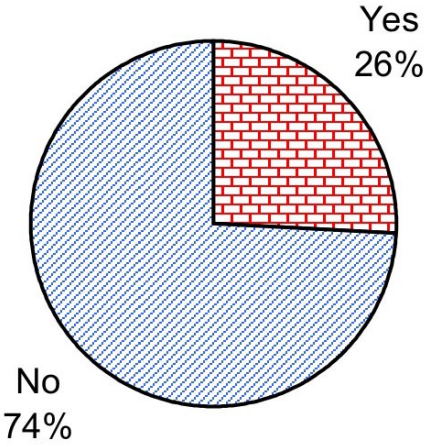


Figure 39: Proportion of Respondents Aware of the Electricity Regulatory Commission

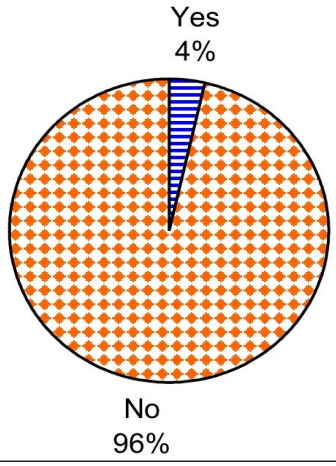


Figure 40: Respondent Perceptions About Consumer Awareness

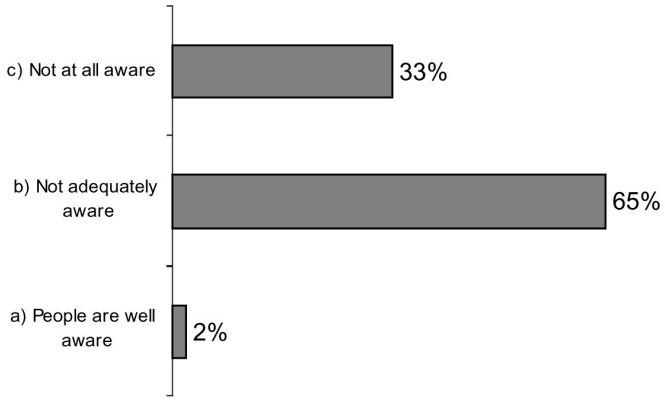


Figure 41: Respondent Support for Alternative Suggestions to Enhance Consumer Awareness

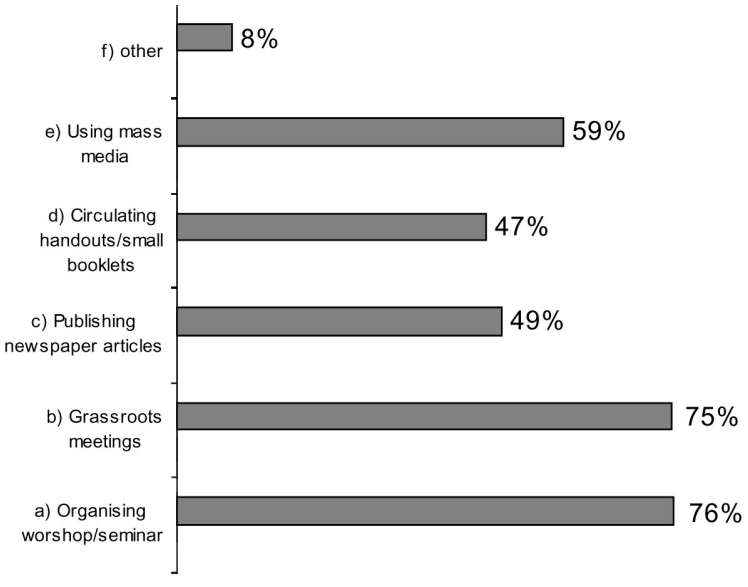


Figure 42: Proportion of Respondents Supporting Consultation of Consumers in the Regulatory Decision Making Process

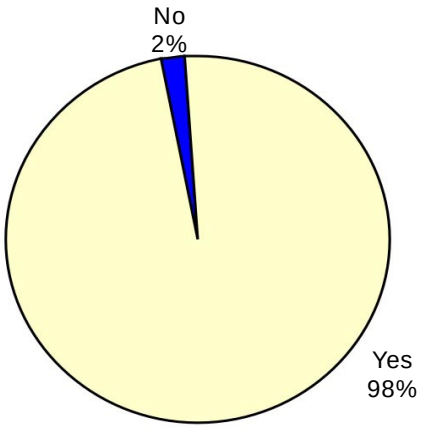


Figure 43: Proportion of Respondents Identifying Each Given Area as Important for Consultation

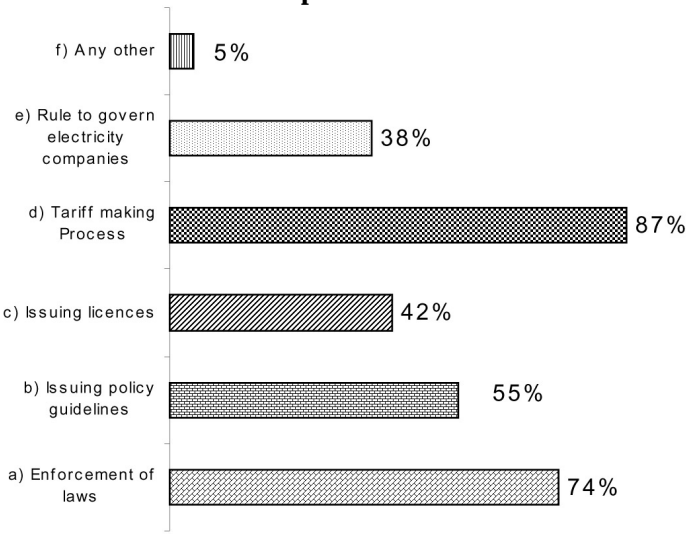


Figure 45: Proportion of Respondents that have Ever Participated in the Regulatory Decision Making Process?

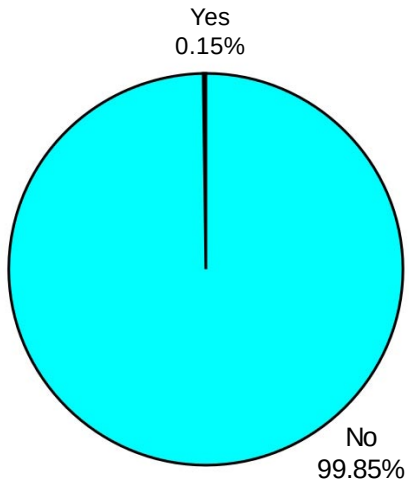


Figure 44: Proportion of Respondents Identifying Each Given Method as Desirable for Public Consultation

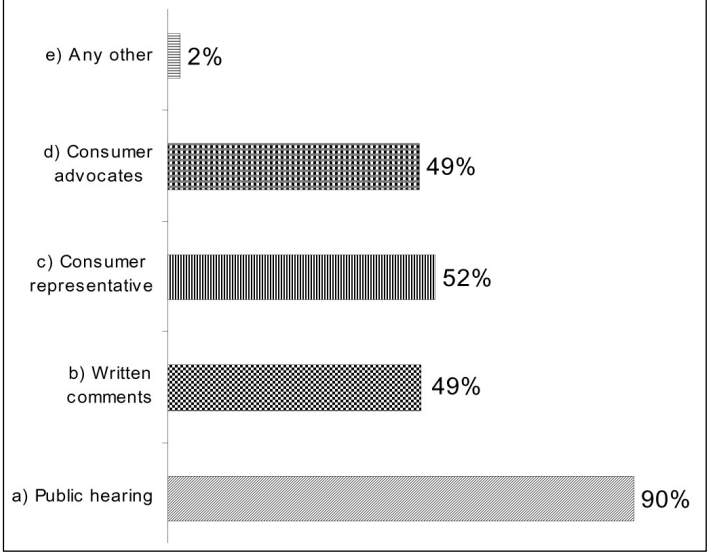
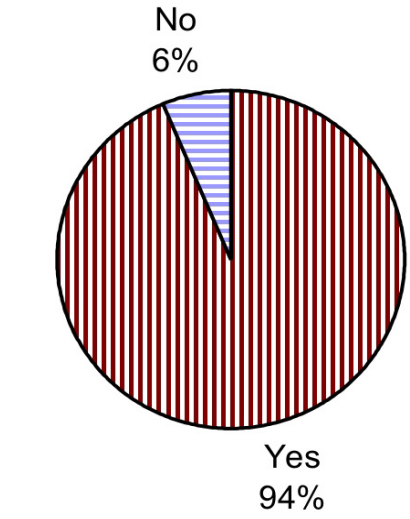


Figure 46: Proportion of Respondents Who Would Like to Attend a Training Programme on Electricity Reforms Issues



need for promoting consumer consultation, simplification of the underlying process as well as wider dissemination of information pertaining to it.

Figure 46 reflects that most (94 percent) respondents would definitely like to attend trainings, seminars, meetings etc. if such opportunities are provided. The consumers (6 percent) who conveyed an unwillingness to participate attributed it to paucity of time, occupational responsibilities or ineffectiveness of such measures.

Thus, organising trainings / workshops on electricity related issues is an imperative and would help garner consumer support and participation in reforms.

2.3 Recommendations Emerging from the Survey Findings

- Grievance redressal mechanism needs to be made more proactive and responsive ;
- Awareness generation regarding the reform process, role of RERC, the consumer consultation process, and the grievance redressal mechanism is an imperative;
- Consumer participation in every field relating to electricity reforms should be enhanced and more public hearings need to be organised;
- There is an urgent need to take definite steps to curb power pilferage and improve quality of service; and
- Consumer consultation process should be simplified and more widely publicised.

3. Regulatory Decision Making and Consumer

3.1 Role of Consumers in Regulatory Decision Making

Consumer protection is a primary mandate for infrastructure regulators. To fulfil this mandate, regulators must ensure effective consumer participation in the regulatory process. Depending on how effectively regulators fulfil their mandate *vis-à-vis* consumers, the regulatory process benefits from a higher degree of consumer involvement. The Electricity Act 2003 facilitates a more pro-active role by consumers in protecting their interest in the sector.

Unfortunately, consumers have often been the most neglected segment in the state owned and operated power sector. In the new regulatory and governance process emerging in the post reform period, consumers are supposed to play a proactive role in promoting their interest. This would go a long way in achieving the basic objectives of economic reform and liberalisation — growth with equity.

Consumer participation in electricity regulation is highly desirable because of the essential nature of the service, as well its crucial role in rapid economic development. Apart from household use, electricity is a basic input into agricultural, commercial and industrial activities. Therefore, all consumers – domestic, agricultural, industrial and commercial – have a vital stake in the sector. Taking this into account, the Electricity Act 2003 envisages effective consumer participation in the regulatory decision-making process (Refer to Box 4).

Box 4: Consumer Protection: Key Provisions in the Electricity Act, 2003

Some of the major provisions pertaining to protection of consumer interests in the Act are:

- Section 23, which, inter-alia, refers to issue of directions to licensees for promoting competition
- Section 42(6) which provides for appointment of an Ombudsman by the state commission.
- Section 57(2) which makes a licensee liable to pay compensation for non-compliance with the standards of performance to the person affected as may be determined by the regulatory commission
- Section 64(3) which refers to the procedure for issuing a tariff order after considering all suggestions and objections received from the public
- Section 60 regarding avoidance of market domination
- Section 61 regarding the factors which are to be kept in view in tariff determination. Sub-section (c) thereof refers to encouragement of competition, efficiency, economical use of resources, good performance and optimum investments

In the pre-reform phase, the participation of the general public was almost non-existent, mainly because of the technical nature of related issues and lack of awareness among them. Similarly, the grievance redressal mechanism involved complaints only to the nearest sub-station and frontline staff. People rarely approached higher authorities even if the frontline staff were not able to redress their grievances, especially in the rural areas. This state of affairs provided an opportunity for corruption because bribery was a cheaper option than pursuing the matter with higher authorities from whom redressal was also not assured. Utilities were mostly unresponsive and insensitive.

The findings of the consumer base line consumer survey conducted under the RESA project reveals that 98 percent of respondents supported consumer consultation in the policy and regulatory decision making process (Figure 42). This emphasises the appropriateness of the project for enhancing effectiveness of regulatory regimes in the electricity sector as it aims to build the capacity of consumers to participate in the regulatory process and that of civil society organisations (CSOs) for suitably empowering the former.

Pre-conditions that encourage private sector investment are safety and adequate returns on such investment. The attainment of these pre-conditions requires that all stakeholders, including consumers, understand their responsibilities / roles. It is expected that consumer participation will help in making the system more transparent and accountable. Extensive efforts such as public hearings, posting of information on the web, media outreach campaigns, etc are required to engage the relevant stakeholders in the process of regulatory reforms.

3.2 Role of RERC in Promoting Consumer Participation

The Electricity Act 2003 requires that the Electricity Regulatory Commissions (ERCs) invite consumers to participate in the decision making process and that their views are heard. Given the findings of the survey, there is a need for increase in consumer participation in electricity reforms and the regulatory process.

At the state level, the RERC has issued decisions on about 200 important proposals, including annual revenue requirement, tariff applications and licensing, after inviting consumers to present their views. Public notices are published giving the salient features of the proposals and mentioning the places where consumers may view these documents. These notices also specify the process and time for submitting comments to the RERC.

In spite of this opportunity available to consumers, their participation has not been adequate in many cases. Hence, the RERC has directed the distribution companies to ensure wide publicity of public notices. During the tariff formulation process for the Annual Revenue Rate (ARR) for FY 2006-07, a copy of the public notice was circulated to consumers with electricity billing statements. In spite of these efforts, only two consumers responded to the Commission on the matter.

However, on certain occasions, a good response on behalf of consumers has been seen. For example, in response to repeated public notices for the ARR and Tariff Application for FY 2004-05, about 105 consumers submitted comments to the Commission. The Commission considered all the submissions made on behalf of the consumers though many of these were submitted without following the proper procedure laid down for this purpose (*Annual Report 2004-05, RERC*).

The baseline consumer survey reflects a sorry picture of consumer participation in the regulatory process. One of the respondents out of a total of 700 had participated in the regulatory process (Figure 45). This reveals a need to build awareness and capacity of consumers, especially in comprehending issues related to effective participation in the process.

Consumers need adequate information on the regulatory system and procedures, and the skills to analyse and interpret such information to provide appropriate responses. Relevant provisions in the statutes and regulations do require RERC to take steps to generate awareness on policy and regulatory issues.

To benchmark this against a developed country case, it should be noted that most PUCs (Public Utilities Commission) in US brings out public involvement guides for their consumers. These guides contain information to help consumers participate in Commission activities, and acquaint them with key PUC personnel and publications. The Commission disseminates relevant information through press releases on important PUC decisions and activity fact sheets as well as consumer bulletins on various PUC programmes and current utility issues. Copies of these publications are made available to the interested public. Notices of tariff filings by regulated utilities to change a rate or service are also disseminated. The

Commission holds public meetings at a pre-announced location. It also sets time aside at each meeting for public comments during which, members of the public can bring up any subject related to a rate or service regulated by the Commission, or comment on matters for Commission action. Consumer assistance organisations also represent consumers in matters before the PUC.

Few examples of consumer awareness generation inside India include:

- Madhya Pradesh Electricity Regulatory Commission (MPERC), has involved NGOs on consumer education and empowerment and is reported to have used the technique of street plays to spread information in the local language and dialect.

- The Uttar Pradesh Electricity Regulatory Commission (UPERC) has engaged an NGO for consumer education.

- The Jharkhand Electricity Regulatory Commission (JSERC) has advertised through the '*Kya Aap Jante Hai*?' series to educate the consumers about their rights and duties in terms of availing electricity supply from the SEB. As part of this initiative, the Commission periodically publishes information about facilities that consumers can avail of and the provisions laid by the Commission for the betterment of the service in the leading newspapers. Under this series, a case came to light wherein a village under the Ranchi zone filed a petition before the Commission against the JSEB (Jharkhand State Electricity Board) against its being denied connection despite filling of the application as per the rules and paying of the requisite amount. In response to the same, electrification work was started in the village. JSERC has also started the *Nukkad Natak* concept to create awareness in rural areas.

- Vernacular publications, web pages, web posting of information, consumer capacity building/ awareness programmes etc. can be effective tools for ensuring better consumer participation in the reform/regulatory process and enhancing consumer protection and welfare. The practice adopted by TRAI to register Consumer Advocacy Groups (CAGs) for building their capacity and awareness is also an effective strategy, which can be considered by RERC. TRAI is also organising training for CAGs by utilising the consumer welfare fund created from license fee collections and penalties imposed on utilities for violation of regulations.

- The Uttarakhand Electricity Regulatory Commission (UERC) has instructed utilities to have display boards at all cash collection centres, and divisional and sub-divisional offices of distribution licensees so that awareness regarding key regulations and consumer issues is created The Commission has conducted *Jan Goshthies* at various remote places to educate consumers about their rights under the Commission's Regulations.

- The website of Delhi Electricity Regulatory Commission (DERC) is very useful for consumers and provides them relevant information ranging from FAQ on electronic metering to energy conservation and the grievance redressal mechanism. It is a good example of pro-activeness of an ERC. DERC also gets periodic Consumer Satisfaction Surveys administered. It also holds training programmes for consumer awareness and capacity building.

In order to involve rural consumers and increase their awareness regarding reforms, the following additional and targeted steps should be undertaken by RERC:

- Involvement of the *Panchayat* in seminars and workshops to foster effective participation by local institutions and thus evoke a positive response towards reforms;

- Production of a documentary film to capture best practices and benefits from reforms and disseminate information;

- Generation of involvement by consumers in various initiatives pertaining to QoS (Quality of Supply) and billing related issues through camps; and

- Stimulating involvement of local CSOs by conducting local level activities pertaining to grievance redressal mechanism issues, etc.

However, there are a few other hurdles which limit the capacity of consumers to participate in the regulatory decision making process. These include financial constraints, poor regulatory response, information asymmetry, absence of training programmes for related consumer groups, etc. Some proven tools that can be used are as follows:

- Creation of awareness about the reform process, issues involved and consumer rights and responsibilities;

- Capacity building of network partners and other CSOs;

- Sensitisation of relevant stakeholders such as utilities, politicians, media, consumers, block and district administration officials and regulators; and

- Development of a mechanism to support consumer interventions in the regulatory process by establishing an Office of Public Advocate (OPA) within the regulatory body – for instance, the establishment of the 'Electricity Consumers Advocate Committee', headed by a Retired High Court Judge, by the government of the National Capital Territory (NCT).

3.3 Grievance Redressal Mechanism

3.3.1 Setting up of Forum

The Electricity Act 2003 requires the distribution licensees to set up a forum in accordance with the guidelines issued by the Commission for the redressal of consumer grievances. The RERC issued *(Guidelines for Redressal of Grievances) Regulations, 2008* relating to classification of complaints, setting up of forums at different levels, and a time frame for redressal of grievances. These include:

- Every licensee in the state should have a "Grievance Redressal-cum-Settlement Forum" at its Corporate Office for the redressal of consumer grievances in accordance with the guidelines contained in these regulations.

- The licensee may establish more than one such forum for timely disposal of consumer grievances.

3.3.2 Jurisdiction of the Forum

(1) Grievances of Non-monetary/General Nature

- Divisional Forum – Grievance of LT supply consumers of the division;
- Circle (District) Forum – Grievance of HT supply consumers of the circle; and
- Corporate Forum – Grievance of EHT supply consumers.

(2) Grievance of Monetary Nature

- Sub-divisional Forum – Monetary limit of Rs 10,000/-;
- Divisional Forum – Monetary limit of Rs 25,000/-;
- Circle (District) Forum – Monetary limit of Rs 3,00,000/-; and
- Corporate Forum – More than Rs 3,00,000/-.

3.3.3 Registration of Complaints/Grievances

- The licensee needs to make public its offices where complaints can be made and registered. Complaints can be made orally in person, on telephone or in writing to the duty in-charge at the specified office. Each complaint has to be entered in a register meant for that purpose under the RERC ('Distribution Licensees' Standards of Performance) Regulations, 2003 and needs to be assigned a number which is to be conveyed to the consumer.

- At urban complaint centres, the licensee has to provide the facility of complaint registration via an interactive voice recording system through telephone in a phased manner for which a definite time frame will be given and acted upon.

- The licensee has to endeavour to redress the consumer complaint at the initial stage. However, in case of non-satisfaction, the aggrieved consumer may approach the appropriate Forum in person or through post for redressal of his/her grievance and may also request interim relief, if so required. The office of the Forum Chairman or the authorised officer/official will acknowledge the grievance received, indicating the registration number and the date.

3.3.4 Registration Fee

No fee shall be payable by the consumer for redressal of grievances that do not correspond to demands for monetary settlement.

Those that do will attract a fee of:

- Rs 50 at Sub-divisional Forum;
- Rs 100 at Divisional Forum;
- Rs 250 at Circle Forum; and
- Rs 1000 at Corporate Forum.

3.3.5 Disposal of Grievances

(1) The Forum will redress the consumer grievances as per provisions of the Act, Rules and Regulations made there under and general orders/directions given by the Commission from time to time in settling the grievances with mutual consensus:

- Where the mutual consensus is arrived at the settlement proceeding, it will be recorded and a copy thereof will be made available to the consumer.

- Where no mutual consensus is arrived at, the forum will pass speaking orders on merits, indicating the contention of the consumer and the ruling of the forum.

- The consumer aggrieved by the decision of Sub-Divisional / Divisional / Circle Forum will have the option to approach the Corporate Forum, before making an appeal to the Ombudsman. For grievances asking for monetary settlement, a fee of Rs 750 needs to be deposited while appealing to the Corporate Forum.

(2) The Chairman of the Forum on considering the grievance, if satisfied, may grant interim relief and keep the final disposal of the grievance pending, where *prima-facie* it appears to be genuine and the consumer is likely to suffer an irreparable loss if such immediate relief is not provided.

(3) Every Forum, at the office will display the date of the meeting last held and the next meeting scheduled as well as number of grievances settled and pending.

The grievance should normally be disposed off in 30 days and at most 45 days from the date of its receipt / registration.

3.3.6 Appeal

- If a consumer's grievance is not redressed by the Forum within the specified time or the consumer is not satisfied with the disposal of his grievance, he will be free to approach the 'Ombudsman' appointed by the Commission as per the RERC (Settlement of Dispute by Ombudsman) Regulation, 2003.

- If an appeal is made by the aggrieved consumer due to non-disposal of his grievance by the Forum in the given time frame, the matter with the earlier Forum will stand dropped.

3.3.7 Recent Initiative

The Energy Department of Rajasthan has started holding *'Electricity Chaupals'* (*Advertisement in Rajasthan Patrika, May 19, 2008*):

- At Sub-station level: on every Tuesday;
- At Sub-division Level: on the 10th of every month; and
- At Circle Level: on the 20th of every month.

Apart from this, it has issued a list of toll-free telephone numbers for consumers of different district circles to register their complaints. Discoms have initiated the process of spot billing, and started consumer call centres and feeder renovation programmes to improve the quality of service, but there are limitations, challenges and internal or external oppositions to such new initiatives.

3.3.8 Ground Realities of Present Mechanism

The survey data provide evidence of the ineffectiveness of the present grievance redressal mechanism. In response to a question relating to complaint registration, as many as 80 percent of consumers said that they had never lodged a complaint (Figure 36) and out of these 49 percent attributed such passive behaviour to the lack of hope of getting redressal and 25 percent to the cumbersome and time consuming nature of the process (Figure 37).

The data given in the RERC Annual Report, 2006-07 on consumer who approached the Ombudsman for grievance redressal shows that this forum is neither well known nor effective. Moreover, there is a condition in the regulation that the consumer can approach the Ombudsman only after he / she has exhausted all remedies available with the Redressal Forum. The Ombudsman cannot intervene till the disposal of the matter by the Forum.

It is strange that millions of consumers fall within the jurisdiction of each Ombudsman, but hardly any consumer approaches him / her. If the Ombudsman is given the authority to stay any coercive action against the consumer during the pendency of the proceedings in the Redressal Forum or his own office, it would make the office of the Ombudsman more effective. The aggrieved consumer, through the mechanism of stay, would be able to get prompt relief from the Ombudsman, which cannot be provided to him under the present provisions.

4. Power Theft and Role of CSOs/ Consumers

The theft of electricity is a challenge that needs to be eradicated. Consuming electricity without being officially connected to the supply point or registered as a consumer of electricity as well as meter tampering is considered to be illegal.

It has been estimated that, in India, theft alone causes a loss of about Rs 20,000 crore (US$4.4bn) annually. Corruption, power theft, inefficient functioning of

utilities, etc act as speed breakers in the way of effective implementation of regulatory reforms. Such factors deter potential investors and thus deprive consumers of the benefits of liberalisation of the sector.

Rajasthan alone faces an annual loss of Rs 2,400 crore (US$527mn) due to theft of electricity, which costs around Rs 1.20 per unit. The distribution companies are running huge debts which are bound to be passed on to the consumers sooner or later and as a result, paying consumers will have to suffer. Loss due to power theft is a big obstacle in the reform process. The act of power theft has been declared a non-bailable and cognisable offence under Section 135 of the Electricity Act which is punishable with imprisonment up to three years or fine or both. But incidence is still high, as has been revealed through the perception survey (Figure 35). Thus, relevant steps are required for curbing this problem.

Theft of electricity cannot be stopped only with legal sanctions. It is a social evil and therefore, social awareness and sensitisation is required to understand its implications. The role of CSOs in creating awareness to help curb the incidence of theft is important.

CSOs can make people realise that honest consumers pay a heavy price because of corrupt consumers and officials indulging in power theft. CSOs can take up various awareness generation programmes on the issue of power theft through street plays, poster displays, public debates and demonstrations, and other innovative ideas to shame the dishonest consumer.

Given below are certain measures that can be adopted to curb the problem of power theft:

- Electricity Committees should be constituted at the village level to create awareness about the implications of power theft and grievance redressal procedures.
- Research to provide more accurate estimates of losses due to theft would help paying consumers, CSOs and regulators in their attempts to reduce its incidence.
- Capacity building of consumers and CSOs on issues related to power reforms should be undertaken so that they can act as watchdogs in regard to the functioning of service providers (Refer to Box 5).
- The quality of service should be improved and tariffs should be reduced.
- Incentives should be provided to people working to curb power theft and welfare activities should be undertaken by utilities in areas where power theft is low to spur concerted community action to bring about a decrease in its incidence in all areas.

Box 5: Plugging Power Theft: A Success Story of Piplod Village

The experience of Piplod village located in Jhalawar district of Rajasthan in reducing power theft is quite interesting. The villagers had been suffering from acute shortage of power and poor quality of service for a long time. On the other hand, due to huge electricity theft and low recovery of electricity dues from consumers, it was unprofitable for the company to ensure better quality of service in the village. Consequently, frequent failure of service lines and transfers was a continuous problem in the village.

A meeting to resolve the problem through dialogue process was organised by CUTS International, Jaipur (Rajasthan), a non-governmental organisation (NGO) working towards consumer advocacy and research. *Village Panchayat* and officers of the distribution company discussed the problem and finally, it was resolved. The villagers will support the company to curb the power theft and pay the pending electricity dues. A committee comprising villagers and employees of the company was constituted to monitor the quality of supply and discourage the theft of power.

According to the plan, the total village area was divided into different segments. Sub-meters were installed for each of the segments. Further, tamper proof cables were installed to supply the electricity at consumer ends. Within a period of two years, significant improvement was reported in the system. Transformer failure rate and energy losses came down drastically that further resulted into the improvement in the quality of service to the villagers.

Source: http://www.cuts-international.org/psr-04.htm

5. Conclusion

The reform processes in the power sector will necessarily take time to show results, given that the situation immediately preceding reforms was woeful – financial and operational conditions in electricity utilities had deteriorated to such an extent that it will take sustained effort over a long period of time to improve the situation. It is, therefore, of utmost importance that Regulatory Commissions and the government work in concert towards developing the sector, while clearly recognising and respecting their respective roles and functions.

Creating and sustaining investor confidence is the key to power sector reforms. This would imply viable and rational policies implemented in a transparent manner. Guarantees by state governments and counter-guarantees by the centre, and escrow accounts are not substitutes for properly designed policies.

The RESA project will contribute in getting the views of the public on the opportunities for public-private-people partnerships in the electricity sector. A multi-stakeholder approach might be helpful in addressing the possible doubts that consumers might have about the reform process. The presence of all major stakeholder groups, including the media, would be helpful in conveying the right message to the masses for getting their support for rapid, smooth and effective reforms.

The future activities of the project include Reference Group Meetings, training of CSOs at Territorial Levels, Grassroots Interface Meetings, National Advocacy Seminars for influencing policy, and a Regional Conference. These will facilitate effective representation of consumer views in policy formulation and regulatory processes, strengthen capacity of consumer organisations to take up action oriented research and advocacy on regulatory / policy issues, encourage regional cooperation and experience sharing through networking, and finally create vertical mechanisms complemented by horizontal linkages among stakeholders at the same level to take the concerns and views from the grass roots to the policy level and vice-versa.

The fleshing out of the present scenario through the base line consumer survey and field research is a good beginning – a bright future beckons.

Chapter 3
Power Sector Reforms in West Bengal

1. Electricity Reforms in West Bengal

1.1. Background

In the Constitution of India "Electricity" is a subject that falls within the concurrent jurisdiction of the Centre and the States. The Electricity (Supply) Act, 1948, provides an elaborate institutional framework and financing norms for the performance of the electricity sector. The Act led to the creation of State Electricity Boards (SEBs) for planning and implementing the power development programmes at the state level. The Central Electricity Authority (CEA) constituted under the Act has been responsible for planning issues related to generation, transmission and distribution of electricity at the national level. In addition, from the beginning the Electricity (Supply) Act has also allowed private licensees to distribute and / or generate electricity in areas specified by the concerned state government / SEB.

During the post-independence period, various state governments have played a predominant role in the development of the electricity sector. Most of these established SEBs. In some of these states, separate corporations were also established to install and operate generation facilities. In the rest of the smaller states and union territories, the power sector was managed and operated by the concerned electricity department.

Till 1991, power generation and distribution remained a near monopoly of the public sector. The key thrust of the governments (state and central) during this period was to supply low cost electricity to consumers. However, it became difficult for governments to provide enough capital for supplying electricity at low cost. Lack of funds, corruption and inefficiency compounded the problem. As a result, most of the SEBs ran into irrecoverable losses and huge deficits.

However, with the introduction of liberal policies in 1991[1] by the Government of India (GoI), and consequent amendments in the Electricity (Supply) Act, the picture changed. Steps were taken to attract private investments to the electricity sector. Major policy changes were made by the GoI to trigger the reform process in the electricity sector. Some of the important policy changes were:

- The Electricity (Supply) Act, 1948 was amended in 1991 to allow creation of private generating companies for setting up power generating facilities and selling power in bulk to the grid or other users.
- The financial environment for private sector units was modified to allow liberal capital structuring and an attractive return on investment. Up to 100 percent foreign equity participation was permitted for projects set up by foreign private investors in the Indian Electricity Sector.
- The administrative and legal environment was modified to simplify procedures for project approvals.
- In 1995, policy guidelines for private sector participation in the renovation and modernisation of power plants were issued.
- GoI promulgated the Electricity Regulatory Commission Act, 1998 for setting up independent regulatory bodies both at the central and state levels *viz*., the Central Electricity Regulatory Commission (CERC) and the State Electricity Regulatory Commissions (SERCs) respectively.

1. www.rediff.com / money / 2005 / sep / 26pm.htm

- The Electricity Laws (Amendment) Act, 1998 was passed to make transmission a separate activity. It was hoped that this would facilitate greater investment in transmission by the public as well as private sector.

- To uphold the spirit of fair competition and transparency in every sphere of economic activity, the Electricity Act 2003 consolidated the laws relating to generation and T&D; trading and use of electricity and other measures for the development of the electricity industry; promotion of competition therein; protection of consumer interests and universal access to electricity; rationalisation of electricity tariffs; ensuring transparent policies regarding subsidies; promotion of efficient and environmentally benign policies; and establishment of the Appellate Tribunal and matters connected therewith.

The policy changes thus did not aim just at increased generation capacity, promotion of competition to encourage fresh private investment, and commercial viability of the utilities but also made provisions to protect consumer interests.

1.2 Importance and Need for Regulation

The sector started witnessing reforms in the mid 1990s. It witnessed active participation of private players, especially those endowed with large amounts of capital, in terms of investment, production and distribution of energy A new range of services relating to electricity supply was launched for both domestic and industrial consumers. However, the government realised the pitfalls of handing over the power sector to private players without bringing them under the purview of proper regulation. It was feared that they would only concentrate on maximising economic profits and not pay due attention to consumer interests.

The government, therefore, felt the need to introduce a set of controls and regulations to prevent such profiteering at the expense of consumer welfare. Accordingly, the GoI promulgated the Electricity Regulatory Commission Act, 1998 for setting up independent regulatory bodies, i.e. Central Electricity Regulatory Commission (CERC) and State Electricity Regulatory Commission (SERC) at the central and state levels respectively. The regulatory commissions were created to act as independent regulators for taking decisions on tariff; capacity addition plans; power purchase agreements; prevention of market dominance by the respective service providers and ensuring public benefits. The regulatory bodies were created to act as a link among producers, distributors and users, thereby optimising the price, quality and quantity of power supplied.

1.3 The Reform Process in West Bengal

The West Bengal Electricity Regulatory Commission (WBERC) was constituted on March 31, 1999. The Commission enacted regulations for generation; distribution; transmission; recovery of expenditure for providing new connections; standards of performance for distribution licensees relating to consumer services; guidelines for establishment of redressal forums; phasing for open access and many others. The regulatory commission, through these regulations, has provided proper guidelines for different units involved in the process of power supply. The commission has also ensured proper penalisation of rule breakers.

Before the enactment of these regulations, the steps to be followed by the "Regulators", i.e. the regulatory commissions, and the "Regulated" i.e. the service providers and the consumers were not clear. Both the distribution licensees and the consumers were not aware of their respective rights and responsibilities. But these problems have been addressed by the introduction of regulations. The regulations have discussed at length the modalities for provision of different services. At the same time, these have helped the consumers immensely in identifying their rights in regard to the consumption of electricity. These regulations have further provided the consumers with an opportunity and a clear path for registering their claims and grievances with the authorities.

The Ministry of Power, West Bengal has set up a separate organisation, the West Bengal Rural Energy Development Corporation (WBREDC) in 1998[2] to undertake the major responsibility of rural electrification and supply of electricity at 400 volts and below to consumers in rural areas with the active involvement of *Panchayat* institutions. The Government claims that, as of March 2008, West Bengal has 5,700 electrified *mouzas* (village clusters), which account for 91 percent coverage, though 900 *mouzas* still remain un-electrified.

Other developments that took place under state reforms include 100 percent feeder metering; computerisation of all commercial activities; and

2. http://www.powermin.nic.in/acts_notification/westbengal.htm

strong anti-theft legislations. Some major outcomes of the reform process are as follows:

- There has been a continuous increase in annual revenue in the recent past (it reached a level of Rs. 5,600 crore in 2007) which is attributable not to tariff increase but improvements in recovery of dues and reduction in T&D losses.

- Energy losses have come down from the level of 45 percent in 2002 to around 30 percent in 2007.

- SEB profits which were at Rs. 500 crore in 2002 turned positive due to reforms and reached a level of around Rs. 100 crore in 2007.

- Other state utilities, e.g. Power Development Corporation saw profits to the tune of rupees one crore to thirty five crore.

- West Bengal State Electricity Board has been divided into two separate companies: West Bengal State Electricity Distribution Company Ltd (WBSEDCL) and West Bengal State Electricity Transmission Company Ltd (WBSETCL).

- The WBERC Regulations, 2006 has made provision for redressal of grievances of consumers against the licensees regarding supply of electricity and related matters (such as excess billing, incorrect disconnection and non receipt of meter).

- To promote Open Access and ensure more competition, WBERC adopted relevant regulations (Nos. 20, 21, 30 3) which lay down terms and conditions for schedule of charges , fees and format for long term, short term and temporary types of open access. The guidelines for phasing open access in distribution / sale of electricity have also been laid down.

Efforts are going on to achieve the target of zero un-electrified villages. This, however, requires that at least 10 percent of the households in each *mouza* should be electrified. Collection of revenue from the rural households seems to be an area of concern. To meet the challenge, the Department of Power is thinking of appointing women meter readers belonging to various Self-Help Groups (SHGs).

However, mere celebration of achievements is not enough. There is a need to highlight inadequacies such as poor consumer participation in the reform process.

2. Baseline Consumer Survey: Main Findings

2.1 Objective

The fundamental objective of the survey was to assess the level of consumer awareness about reforms in the electricity sector, especially at the grassroots, and gauge capacity and preparedness of consumers to participate effectively in the reform process.

2.2 Scope

Field surveys were conducted in 10 select districts of West Bengal — Uttar Dinajpur, Malda, Murshidabad, Purulia, Nadia, Hooghly, Howrah, Midnapur, North 24 Parganas and semi-urban areas of Kolkata — to gauge the understanding and awareness of electricity consumers / users about the following issues:

- Rights of electricity consumers;

- Grievance Redressal Mechanism for poor quality of service, power theft etc.;

- Ongoing reform process in the electricity sector; and

- Scope for their engagement in the process of electricity reforms.

A sample of both electrified and non-electrified respondents numbering 700 and drawn from various sectors – commercial, industrial, agricultural and domestic – was surveyed.

2.3 Methodology

As the local CSOs in these districts do not have enough outreach to cover the whole district, it was decided that these would cover at least 60 percent of the total blocks in their respective home districts. Thus in each district 5-6 blocks (on an average) were covered.

One person – preferably head of the family and on his non-availability, another family member with similar knowledge about household affairs – from each household was interviewed on the basis of a structured questionnaire. The survey was supervised by a nodal person who periodically met the survey teams and reviewed the completed questionnaires. The filled in questionnaires were finalised only after the nodal person was satisfied.

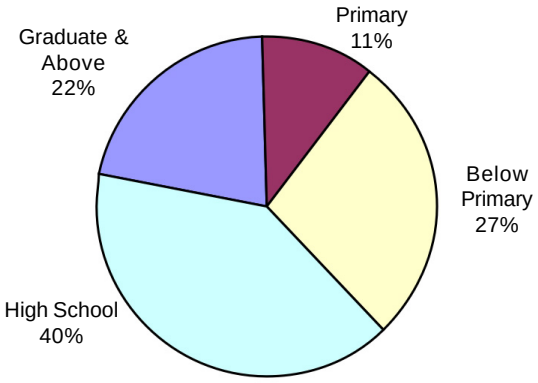
In order to identify and address specific gender concerns, attempts were made to ensure maximum representation of women.

2.4 Background Information about the Respondents

2.4.1 Educational Level of Respondents

Out of a sample of 700 respondents, 22 percent were graduates; 40 percent were high school pass outs but not graduates; 11 percent were primary school pass outs and the rest (27 percent) had even lower education. It can, therefore, be inferred that the education level of a majority of the respondents was 'secondary or below' (Figure 47).

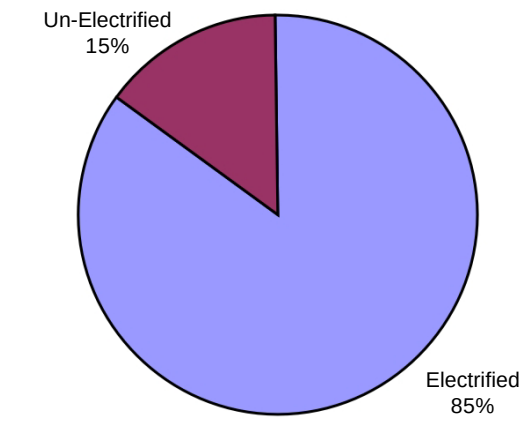
Figure 47: Educational Level of the Respondents



2.4.2 Respondents Classified by Access

The survey also tried to elicit the views and concerns of non consumers in order to find out the causes for absence of access. Out of the 700 respondents, only 85 percent had access. An important reason for the lack of access to electricity was inadequacy in infrastructure and high cost of electricity supply.

Figure 48: Respondents Classified by Access



Within the sub-sample of non-electrified respondents, 62 percent identified unavailability of electricity poles / posts in the vicinity of their residence as the main reason for lack of access. Such lack of availability is a very common characteristic of rural *mouzas* in West Bengal.

While 27 percent of the mentioned sub sample did not apply for new connections because they could not afford to pay for electricity, 8 percent of non-electrified respondents reported that new connections had not been provided even though the required amount had been paid to the distribution licensee and the limitation period of six months had expired. Only 3 percent actually confessed to a lack of need for electricity.

Thus, near universality of the need for electricity but poor access to its supply are major findings of the survey.

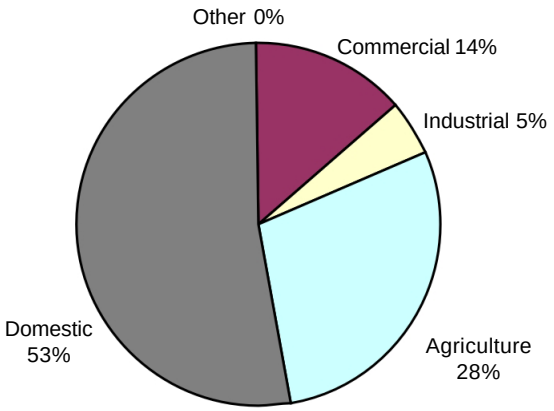
2.4.3 Composition by Category of Electrified Consumers

Out of all consumers interviewed, 14 percent belonged to the commercial sector whereas 5, 28 and 53 percent belonged to the industrial, agricultural and domestic sectors respectively (Figure 49).

2.4.4 Common Consumer Problems Experienced during the Last Year

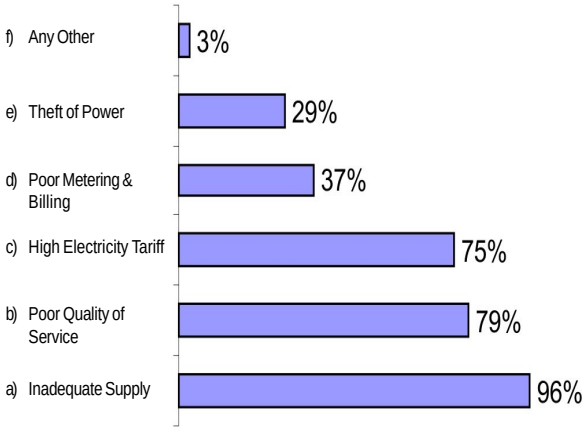
96 percent of consumers reported inadequate supply of power. This was expected given that large parts of the state face an acute power crisis. It was also found that villagers suffered more than urban and semi-urban consumers (Figure 50).

Figure 49: Composition by Category of Electrified Consumers



79 percent reported that they did not get the required voltage to carry on their work smoothly. In many parts of the state, agricultural pump sets get burnt due to voltage fluctuations.

Figure 50: Incidence of Consumer Problems



Though most of the respondents were not aware of the frequency of electricity tariff hikes, 75 percent felt that the tariff being charged was very high. While 37 percent complained of poor metering and billing, very few complaints of irregularities were reported. The survey revealed that consumers of Calcutta Electricity Supply Corporation (CESC) were billed on a monthly basis whereas those of WBSEB received bills every quarter.

The consumer survey revealed that consumers in all areas of West Bengal, whether urban, semi-urban and rural, faced difficulty in comprehending the information provided on their billing statements in English. Thus, it is important to issue these in Bengali, the vernacular language.

Electricity theft was reported as being widespread but in general, further comments were not available. 29 percent of the respondents described it as an unfortunate phenomenon and were aware that it is a crime. The handful of respondents willing to express their views further said that it was committed at an individual as well as an organisational level and was more common in rural areas. According to them, much of it took place through 'hooking' and the magnitude varied across localities. Further, local residents do not dare to complain to the WBSEDCL officials because of fear of intimidation by local political party workers (Figure 50).

Many of the consumers were not aware of the process for registration of complaints against power theft. Respondents recommended reduction in power theft through increased vigilance by government officials and the electricity department, stricter enforcement of anti-theft laws and heavy punishment for arrested wrongdoers.

Only three percent of the respondents reported other kinds of problems *viz*. rude behaviour of the employees of the distribution company, insufficient patrolling arrangement at night, etc.

2.4.5 Registration of Complaints

Though the majority of responding consumers faced different kinds of problems, yet only 27 percent had ever registered complaints with their respective electricity suppliers (Figure 51).

The main reasons for not registering complaints as revealed by the survey were as follows:

- 41 percent did not complain because they did not have much faith in the grievance redressal mechanisms.
- For 24 percent, the time consuming nature of the process was the main reason.
- 39 percent did not register complaints because they had no reason to complain.

4 percent did not register a complaint because of reasons other than the ones listed above (Figure 52).

Figure 51: Percentage of Consumers Who Had Ever Registered Complaints

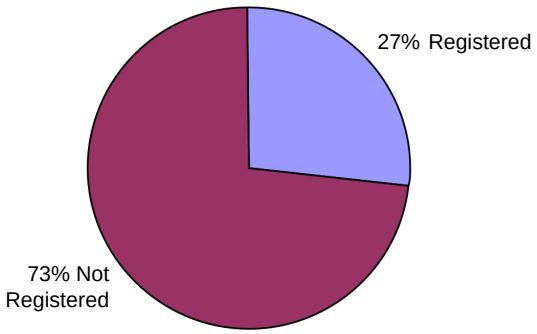
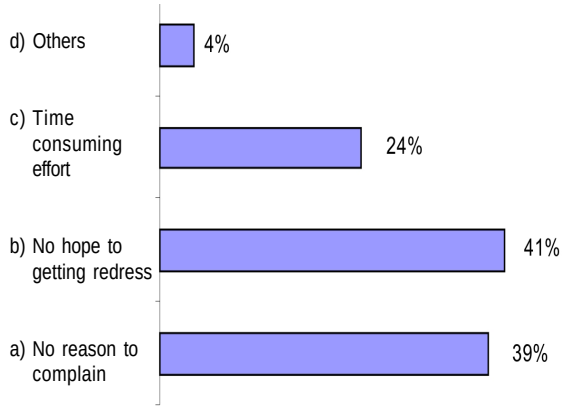


Figure 52: Reasons for not Registering Complaints: Percentage Incidence among Consumers



Two respondents of Medinipur reported that threats of physical harm or damage prevented them from filing complaints. In stark contrast, one resident of Hooghly remarked that the promptness with which his telephonic complaint was attended implied that a written complaint was not needed.

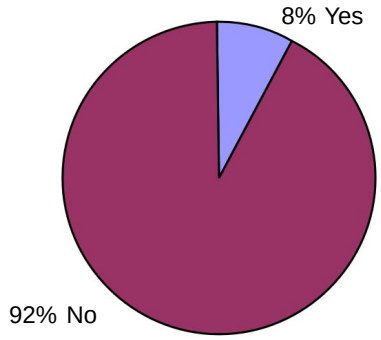
2.5 Awareness on the Changes in the Ownership and Regulation of the Electricity Sector

2.5.1 Awareness of the Ongoing Reform Process

As mentioned at the outset of this paper, since 1999 a number of reforms have been introduced in the electricity sector *viz.* unbundling of generation, transmission and distribution of electricity; establishment of a Central Electricity Authority; introduction of pro-consumer regulations etc. However not many respondents were aware of the ongoing reform process.

Out of 700 sampled respondents, only eight percent were aware of the reform process (Figure 53).

Figure 53: Awareness of the Ongoing Reform Process



According to the respondents of Murshidabad, new distribution mains, transformers and power production houses have been established. People have witnessed privatisation in the power sector and computerisation of billing. One of the respondents was aware of the formation of three new entities – WBSEDCL, WBSETCL, and West Bengal Power Distribution Company Ltd. (WBPDCL).

The respondents of North 24 Parganas felt that there has been considerable improvement in the electricity sector due to the introduction of new laws. They felt that these laws have proved effective in making the distribution licensees more efficient in providing services. The respondents have also appreciated the creation of a centralised grid system for supply of electricity to the nation.

The people of Purulia seemed to be aware of the unbundling process and creation of three new entities. New developments like regular meter reading, increased number of consumers, timely receipt of electricity bills etc. have reportedly been facilitated through SHGs.

2.5.2 Awareness About the Role of the Electricity Regulatory Commission

Very few respondents (2 percent) were aware of the electricity regulatory commission's responsibilities and functions. This there is a urgent need to create awareness about the need for promoting consumer participation in deriving benefits from existing institutions (Figure 54).

2.5.3 Respondent Perceptions About Awareness Regarding Electricity Reforms

The universal perception was that people were not adequately aware about the reform process. Thus, they expressed a desire to be informed about the important issues related to the electricity sector and the reform agenda (Figure 55).

Figure 54: Awareness about the Role of the ERC

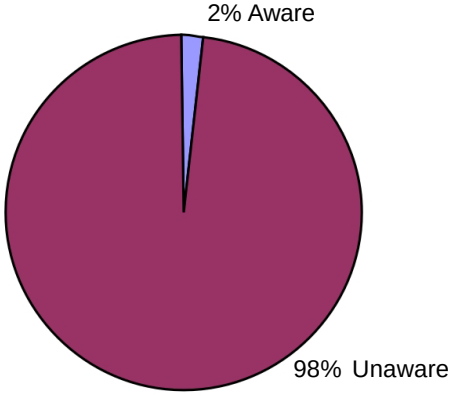
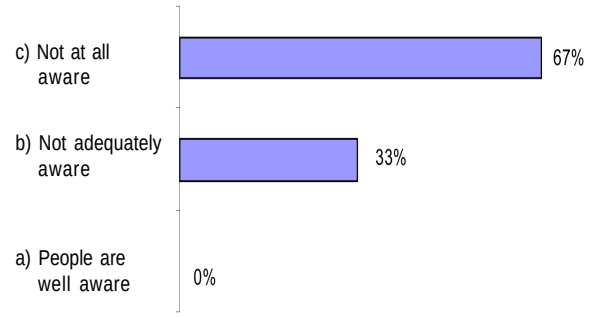


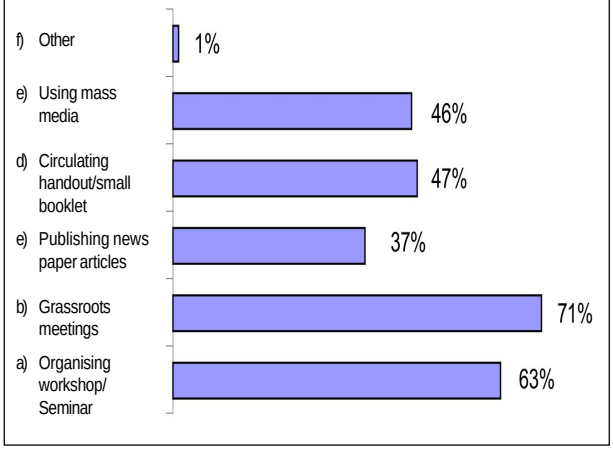
Figure 55: Respondent Perceptions About Awareness Regarding Electricity Reforms



2.5.4 Suggestions to Enhance Level of Consumer Awareness

An important objective of this study was not only to gauge the level of awareness of the electricity consumers about their rights but also to capture their views on effective ways of information dissemination. According to a large number of respondents (71 percent) grassroots meetings constituted an effective tool for enhancing consumer awareness while 63 percent attested to the effectiveness of workshops/seminars. *Circulation of handouts* and *use of mass media* scored 47 and 46 percent respectively. 37 percent of respondents expressed support for the publication of articles in local newspapers (Figure 56).

Figure 56: Relative Support for Alternative Means to Enhance Consumer Awareness



2.5.5 Consumer Consultations

99 percent respondents were of the opinion that the government or the electricity regulatory body should consult consumers in the process of framing laws, policies and other regulations. This implies that consumer consultation on relevant issues should be encouraged more vigorously and effectively, thus justifying the main objective of the project (Figure 57).

2.5.6 Important Areas for Public Consultation

A majority of respondents – 78 and 69 percent respectively – identified the tariff formulation process and enforcement of electricity laws as important areas for consumer consultation. According to 41 percent, such consultation was important before issuing policy guidelines while 32 percent felt the same about the issue of licenses. Only 21 percent felt that public consultation should precede the formulation/modification of rules governing electricity companies (Figure 58).

2.5.7 Methods for Public Consultation

Having identified the important areas for public consultation, the next objective of the survey was to identify effective mechanism/s for consumer consultation as viewed by the electricity consumers themselves.

Figure 57: Respondent Support for Consumer Consultations

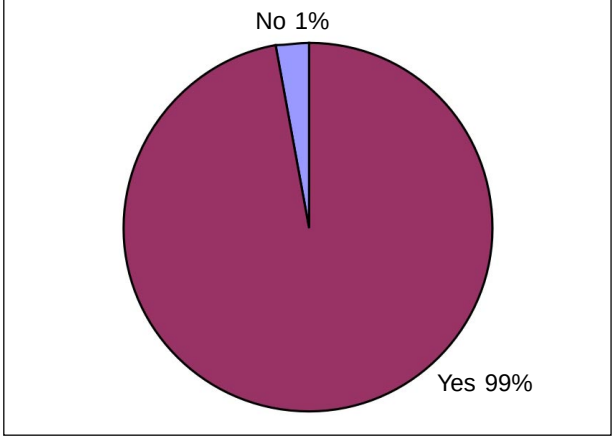


Figure 58: Percentages of Respondents Identifying Listed Areas for Consultation as Important

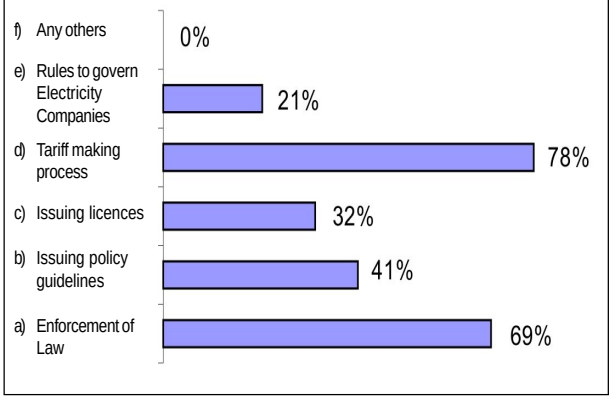
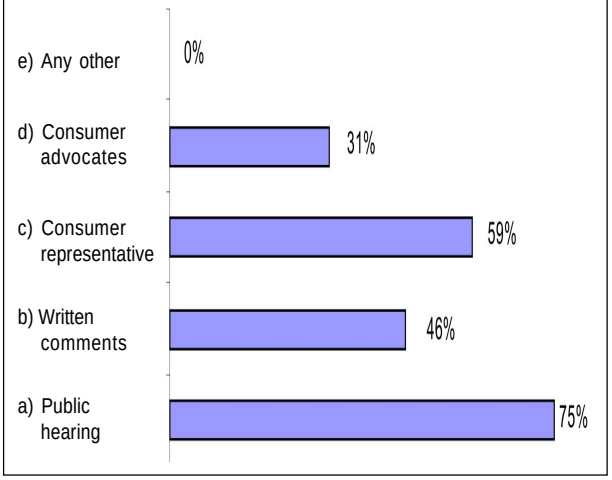


Figure 59: Relative Support for Methods for Public Consultation



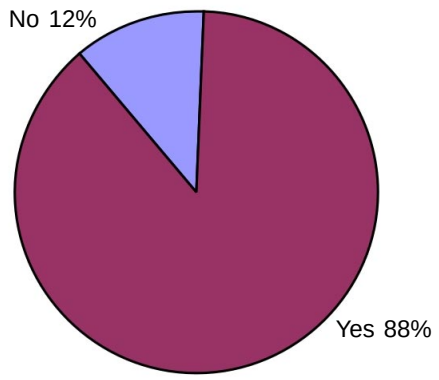
75 percent expressed support for public hearings while *59* percent were in favour of nominating consumer representatives to advisory committees / bodies. *46* percent respondents opined that inviting written comments from consumers is a desirable method for facilitating public consultation while 31 percent supported the use of consumer advocates for representing public opinion (Figure 59).

2.5.8 Participation in Consumer Consultation Process

Only five respondents participated in the consultation process or public hearing conducted by the government or the energy / electricity regulatory agency. This finding *clearly* depicts the absence of effective consumer participation in the electricity reform process in West Bengal.

Therefore, implementation of the RESA project is very timely and will go a long way in creating consumer awareness and capacity to participate in the electricity reform process.

Figure 60: Proportion of Respondents Interested in Training Programmes



2.5.9 Participation in Training Programmes

Out of the 700 respondents, 88 percent expressed interest in participating in training programmes / seminars on electricity reforms. For those not interested paucity of time and lack of funds were major reasons (Figure 60).

2.6 Recommendations

Major recommendations emerging from the findings of the consumer baseline survey are as follows:

2.6.1 The criteria laid down for a *mouza* to be considered 'electrified' needs to be revised. Electrification of just 10 percent of the households in each *mouza* is not sufficient. When the administration tries to meet this criterion the infrastructure developed is often not sufficient to ensure electrification of all households and results in access becoming expensive and unaffordable for many potential consumers..

2.6.2 There is an urgent need to improve the quality and quantity of electricity supply in rural West Bengal.

2.6.3 Electricity bills should be published in Bengali, the vernacular language, at least for the rural consumers.

2.6.4 Enforcement of anti-theft laws needs to be stricter and people's participation in reducing theft should be secured through innovative and effective methods. Access to electricity at affordable prices to all was also identified as an important means for reducing theft. As one of the respondents opined, "Why will people steal power if the government ensures electricity for all at reasonable tariff rates?"

2.6.5. The grievance redressal mechanism needs to be simplified and made more transparent and efficient so that consumer complaints are redressed quickly.

2.6.6 Large scale consumer education programmes (including grassroots meetings, training workshops, write ups and talk shows in media) should be conducted at regular intervals at the district level by the regulatory commission to make consumers aware of the reform process and thus encourage and enhance their effective participation.

2.6.7 Public hearings should be reintroduced to strengthen public consultation.

2.6.8 The regulatory commissions should also collaborate with local CSOs to undertake activities at the grassroots level.

3. Consumer Participation and Role of the CSOs in the Reform Process

3.1 The Need for Consumer Participation

The universal acceptance of consumer sovereignty by market economies should encourage consumers to come forward and be proactive in the enforcement of their rights and promotion of their interests. Consumers not only should have the right to satisfaction from goods and services paid for but also the prerogative to intimate the service providers about the kind of services they want to avail. The same is true of electricity consumers.

Thus, consumers of electricity need to be proactive in order to make the distribution licensees more efficient in their performance. In the event of infringement of rights or receipt of inadequate and irregular supply, consumers should complain to the appropriate authorities on their own. Though no provision for public hearing has been provided for in the Electricity Act, 2003, there is no reason why consumers should not voice their objections and suggestions for consideration. It is active consumer participation that will make the whole process of power reforms more effective.

3.2 Role of Consumers and CSOs

Now that the necessity of consumer participation has been analysed, it is important to understand the actual role that can be played by consumers and CSOs.

At the outset, it is important for consumers to understand that they have the right to judge the kind of services they are provided with and in case of any deficiency complain to the relevant authorities for redressal.

The consumers need to question the concerned authorities through valid queries on issues such as establishment of new electric connections, delay or irregularity of electricity supply etc. This can easily be done by consumers using the *Right to Information (RTI) Act, 2005* or through the process laid out in detail by the regulations brought out by the ERC. Consumers can also enforce their rights regarding electricity consumption with the help of the Consumer Protection Act, 1986.

The main problem in this regard is the ignorance of consumers regarding procedures and the authorities that need to be approached. Such information gaps can be alleviated by CSOs. While consumers need to be educated about the existence of acts relating to RTI, electricity supply and consumer protection issues, there is a need for CSOs and the other voluntary organisations to play an active role in informing consumers in simple language about the services they deserve to receive and dispute settlement procedures. It is only then that consumers would be able to optimise their participation in the regulatory process.

However, consumer welfare gains do not follow from the actions of consumers alone. CSOs will have to take proactive steps to make the government authorities aware of their responsibilities and liabilities towards the people. If the distribution licensee does not perform his duty of displaying details about the complaint redressal procedure, the CSOs should obtain such required information and intimate the same to the public.

3.3 Implications of Power Theft and the Role of Consumers and CSOs

Power theft (or illegal access to electricity) from either the service line or the main cable by hooking is a growing problem and imposes costs on the paying consumer by causing recorded consumption of such consumers to exceed actual consumption or inadequate collection of tariff revenue.

Moreover, power thefts impose unanticipated pressure on infrastructure – cables designed to supply a certain amount of power are subjected to unmanageable load leading to permanent faults, irregular supply of power, shortage of supply or voltage fluctuations.

The consumers themselves have to find ways to check power theft using existing legal provisions. Such use by consumers is pre-conditioned on awareness. However, mere awareness often is not associated with use because of intimidation by certain elements, lack of faith in authorities etc. CSOs can intervene meaningfully by preventing intimidation and acting as a bridge between the authorities and the consumers to facilitate effective redress of complaints and thus restore the faith of all consumers in the system.

Thus, CSOs themselves would have to be aware of the mentioned legal procedures and should then inform consumers of the same by conducting meetings and awareness campaigns. Furthermore, a CSO representing a consumer group can itself file a complaint to the concerned authorities regarding power theft.

3.4 Present Status and Hurdles in Effective Consumer Participation

West Bengal has witnessed minimal consumer participation. Consumer complaints against licensees made so far include those alleging the charging of excessive security deposits, excessive billing, use of faulty disconnection procedures, malfunctioning meters etc. (Figure 51).

The commission so far has received only 720 complaints (39 in 2006-07). Out of 720 complaints, 554 were disposed of (67 in 2006-07), 51 cases were referred to ombudsman and the remaining 115 complaints were in the process of disposal at the end of the period being reported.

It is true that the Electricity Act, 2003 has not provided for any provision for public hearings. But people have shown minimal participation even in the submission of their complaints and suggestions to the local distributors and the regulatory commission.

As mentioned above, information gaps, lack of faith in the system and fear of intimidation inhibit participation. Moreover, there is also a paucity of CSOs which can take up education and awareness building of consumers as well as tackle elements posing a threat to consumer participation.

4. Suggestions for Effective Public Participation

Some suggestions that follow from the findings of the survey and their analysis are as follows:

Participatory research on consumer demands and opinions expressed through surveys, interviews, and workshops facilitated by cooperation among distribution licensees and voluntary organisations will be helpful. The results of these surveys when made public will prompt remedial action.

The distribution licensees should be persuaded to publish the reasons for tariff hikes and respond to subsequent public feedback.

Public appeals need to be made to the State Legislature for amendments to the Electricity Act and the Electricity Regulations so that suitable provisions for including needed measures of public participation can be incorporated.

The **RTI** Act, 2005 should be utilised to make appropriate queries and follow up action to ensure response should be taken.

5. Conclusion and the Way Forward

5.1. Conclusion

This paper brings to light the findings of the baseline consumer survey which was an effort to assess and capture the ground realities (i.e. achievements and deferred achievements) of the reform process introduced in the power sector of West Bengal as well as gauge the awareness and participation of the public in regard to the same. Ascertaining public opinion on vital issues to identify needs for capacity building at the grassroots was another objective. This paper is not only targeted at consumers and CSOs working at the grassroots but also attempts to make policymakers and local legislators cognisant of the key areas of grassroots concern and bring about suitable policy change.

The project has been reasonably successful in sensitising consumers about the state of electricity supply and empowering them to identify their own problems and come up with suggestions. They have also come to understand the importance of public participation and are willing and eager to participate in training programmes to enhance their own knowledge.

The baseline consumer survey has revealed that though the reform process is ongoing, the fruits are yet to reach the grassroots stakeholders. The West Bengal Electricity Regulatory Commission has enforced many pro-consumer regulations, but the consumers are completely ignorant about these. There is therefore an urgent need to educate the people about electricity reforms and their own responsibilities and rights in making the reform process more meaningful. CSOs and the Regulatory Commission must join hands to play a pro-active role in educating the masses.

5.2. Way Forward

This paper has successfully identified the way forward for different stakeholders. Grassroots efforts to educate electricity consumers and people in general on ongoing reforms in the electricity sector as well as enhancement of the capacity of local CSOs to work in this sector are the need of the hour. Only then can effective and meaningful consumer participation be ensured.

To achieve these two ends –

- The regulatory commission and the government should initiate new and extensive awareness generation programmes.

- CUTS on its part will immediately come up with a 'training manual' to train local grassroots trainers who in association with CUTS resource persons will educate the masses on their responsibilities and rights through grassroots meetings.

- CUTS and the local partners will jointly try to activate the Beneficiary Committees (BCs) at the *panchayat* level to prevent theft of power. These BCs would be comprised of *Gram Panchayat* members, local teachers, youth etc. During the base line consumer survey, it was observed that though there is a regulatory provision for BCs at the *Gram Panchayat* level no such committees are operational.

- The utilities should set up efficient redressal mechanisms to stimulate back consumer confidence as well as take up awareness and educational initiatives.

- The policymakers should amend laws to reintroduce effective procedures of consumer consultation.

- A joint initiative of government, CSOs and public should be launched to reduce and stop theft of electricity.

Annexure A

The Consumer Rights Statement and the Regulations in West Bengal

The Consumer Rights Statement under the Electricity Act 2003 is a synopsis of rights available to the individuals regarding the supply of electricity. It is basically a step to create awareness among the consumers regarding their own rights and responsibilities towards deserving quality supply of electricity.

- As far as the first basic right mentioned in the synopsis is concerned, the regulations brought out by the Electricity Regulatory Commission have dealt with it quite effectively. **Regulation 24 elaborates on the release of a new connection to any interested consumer and the requirements thereof.**

A customer intending to seek inspection of his premises by the distribution licensee or a distributor (holding a proper license for the purpose) for provision of electricity supply , can obtain an estimate of the expenditure to be incurred as well as deposits to be made to the distributor in the specified form by filing a request to the distributor in writing, and sending him the required earnest money. This earnest money is later adjusted against the amount payable to the distribution licensee for the availed connection.

The distribution licensee on receipt of the request from the intending customer for electricity supply shall authorise its representative to conduct an inspection of his / her premises and would thereafter provide an estimate of the expenditure likely to be incurred as well as the deposits to be made by the customer to the distributor. The distributor has to perform this task within specified time limits.

- The second issue dealt with in the synopsis is **Standards of performance regarding quality and services to be provided by Distribution Licensees.**

In this regard, the consumers have been guaranteed uninterrupted transmission of low cost but good quality power or electricity. The Regulations brought out by the ERC have also guaranteed the same. Regulation 24 again deals with the rights of the consumers and the responsibilities of the distribution licensee to complain against planned and unplanned interrupted power supply, low voltage power supply, prolonged power cuts, faulty meter reading etc.

In case of unplanned interruptions caused by natural calamities in electricity supply, consumers are entitled to get their supply restored by the distribution licensee for stipulated types of faults. When there is planned interruption of supply lasting more than 6 hours at a stretch for planned maintenance but not emergency repair, the distribution licensee shall notify the consumers at least 3 days before the supply is cut off through announcements.

For complaints regarding voltage, voltage fluctuations, meter and meter equipment, and modifications to existing connections, there exists a provision for customers to apply to the distribution licensee with proper details of the problem. In the event of non-performance of functions by the distribution licensee, customers are also entitled to seek corrective action and compensation for the inconvenience caused by applying to the grievance officers.

- The third issue is **the code of practice relating to payment of bills** and has also been dealt by Regulation 36.

The specified time periods for the receipt and the acceptance of bills, steps to be taken in the event of non-receipt of bills, manner of payment of bills, and redress of any dispute regarding the payment of bills etc. have been discussed at length by the regulation.

The bill should be sent to the customer by the licensee at least seven days before the due date of payment. If the consumer does not receive the bill in time he may request the licensee to send him a copy of the bill or relevant portions from the original bill from the concerned area office by fax or courier or the speediest means possible.

The consumers can normally pay their bills at designated collection centres and also by cheque or bank draft to the concerned authority, as mentioned in the details given in the bill.

- The fourth issue that has been addressed by the synopsis is the **Complaint handling procedures and grievance redressal.**

This issue has been effectively dealt with by Regulation 27 which elaborates on the process of filing a complaint to the distribution licensee; then approaching the Grievance Officers for fair adjudication; and finally appealing to the Ombudsman for final resolution of the problem.

The customer is required to submit his / her grievance to the Grievance Officer at the lower level in writing. The officer then has to take up the complaint and take action for its redressal. The customer should be provided the written acknowledgment of the receipt of complaint by the Grievance Officer within seven working days. Every complaint is assigned a number which is communicated to the petitioner.

A consumer has to approach at least one Grievance Redressal Officer or one Central Grievance Redressal Officer before representing his case to the Ombudsman. If a consumer is not satisfied with an order from a Grievance Redressal Officer or if he does not receive any order from the Grievance Redressal Officer approached by him within 60 days of the lodging of his grievance, he may submit a written representation to the Ombudsman.

- The **tariff rates and the Schedule of Charges** are under the purview of the ERC. It is the commission, which fixes the tariffs. This has also been clearly been stated by Regulation 38 which mentions explicitly that that the authority to fix the tariff rates should not be in the hands of either the producers or distributors of electricity under any circumstances. Only the ERC has got the authority to determine the tariff rates and issue the tariff schedule

- To check the **correctness of meter,** the regulations have provided for some instructions and principles:

Consumers can purchase the meter from the electricity distribution company or any supplier of meters as per the specifications of the Central Electricity Authority.

Consumers have the right to get the meter tested for accuracy upon making a request to the electricity distribution company and paying testing charges as well as receive a copy of the test report which has to be provided within two months of the request for testing.

- Finally, the **Open Access Mechanism**, to be brought in force from 2009, will grant the consumers of electricity the choice of choosing their distributors and suppliers of electricity. Such choice is provided by Regulations 30 and 35. There are certain rules and regulations which the consumers will have to refer to while selecting an alternative supplier.

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Annexure B

The Redressal Mechanism

In order to protect consumer interest, the Commission took action as per Electricity Act 2003. The related regulations came into force with effect from October 08, 2003 and specified the manner in which grievances of the public should be redressed at three successive tiers within the organisational structures of the licensees. The licensees were required to put such mechanisms in place within 6 months of the appointed date (June 10, 2003).

Thereafter, the aforesaid Regulations have since been replaced by West Bengal Electricity Regulatory Commission (Guidelines for Establishment of Forum for Redressal of Grievances of Consumers and Time and Manner of Dealing with such Grievances by the Ombudsman) Regulations, 2006.

The customers need to submit their grievances to the Grievance Officers at the lower level, in writing. The officers are then required to take up the complaint and take suitable action for its redressal. The officers might request inspection by experts, etc, consult the authorities concerned regarding alleged deficiency in services, and communicate the results of their actions to the petitioners. The grievance officers also collect relevant information regarding the records and documents relating to the individual's complaint. The final disposal of a consumer's grievance is in the hands of the Ombudsman.

The details pertaining to grievance redressal forums and officers are communicated to customers by prominently displaying these on billing statements, near the main entrances of offices and sub-offices, and on the website.

Working Procedure for the Grievance Redressal Officers

An aggrieved consumer may approach the Grievance Redressal Officer of his area only through a written petition, submitting in the same as much concrete and detailed information about the grievance as possible. If his grievance is the subject matter of any court case, he should furnish a copy of his plaint and indicate the status of the court case; in case, the court case has already resulted in an order, he should submit a copy of that order.

The customer should receive the written acknowledgment of filing of the complaint from the grievance officers within seven working days. Every complaint is given a plaint number which should be communicated to the petitioner.

If the complaint does not require consultation with a technical expert, the petitioner can expect his complaint to be redressed within 21 working days. However, if inspection or decision from an expert is required, the redressal procedure can last for 45 working days

If the complainant is dissatisfied with the redressal decision, he is at liberty to approach the Ombudsman, who has the final authority to dispose off the grievance.

A consumer must approach at least one Grievance Redressal Officer or one Central Grievance Redressal Officer before representing his case to the Ombudsman. If a consumer is not satisfied with the order of a Grievance Redressal Officer or if he does not receive an order from the Grievance Redressal Officer approached by him for redressal of his grievance (s) within 60 days from the date of lodging of his grievance, he may submit a written representation to the Ombudsman.

A consumer can at will move to any other authority or a court of law or a consumer forum for redressal of his grievances. However, after doing so, he should disclose the same with all necessary details while filing a representation to the Ombudsman.

Chapter 4
Power Sector Reforms in Nepal

1. Electricity Reforms in Nepal

1.1 Introduction

Energy is considered as a vital input in the process of economic and social development of a nation. Its consumption reflects the level of economic development. In Nepal, energy demand is met for traditional, commercial and renewable sources. According to the *Economic Survey 2006/07*, the traditional source meets the bulk of total energy consumption with an 85.5 percent share, followed by commercial and renewable energy sources at 13.5 percent and 0.6 percent, respectively. Fuel wood, agriculture residue and animal residue provide 88.7 percent, 4.8 percent and 6.5 percent of the total traditional energy consumption, respectively. As far as consumption of commercial energy is concerned, petroleum products have a predominant share (58.5 percent), followed by coal (22.7 percent) and electricity (18.8 percent). This shows high dependence of the Nepalese economy on traditional sources of energy, with electricity consumption at a minimum level.

However, the hydropower generation potential of Nepal is estimated at 83,000 Mega Watts (MW) and the commercially viable capacity is estimated to be 42,000 MW. Nepal presently utilises a mere 0.7 percent (i.e., 556.4 MW) of its total generation capacity and only one percent of commercially viable capacity. Electricity is also generated from thermal power plants and solar plants, which presently produce 55.028 MW and 100 KW, respectively. This takes the total electricity generation in Nepal to 611 MW.

Based on government data for 2007, only 45 percent of Nepali households have access to electricity. This is in spite of the huge electricity production potential of Nepal. The prevailing irregularities and malpractices like those that come to the surface during power purchase agreements and government procurements are often held responsible for the sluggish development of Nepal's power sector. Large power losses and unreliability of the system characterise Nepal's power sector. The investment required for expanding electricity services is beyond government's resources. International lending agencies urge private sector involvement in the business. Such a situation calls for sweeping reforms in the electricity sector.

1.2 Regulatory Framework Governing Power Sector

The Department of Electricity Development (DoED) under the Ministry of Water Resources regulates the electricity sector in Nepal. Apart from other functions, it also facilitates and promotes private sector involvement in power development. In addition, it provides technical support for developing power plants. The Electricity Tariff Fixation Commission (ETFC) reviews and approves retail electricity tariff structures. The ETFC is constituted as a six-member commission with the Director General of the DoED serving as Secretary to the Commission, as per the Electricity Tariff Fixation Regulation, 1993. The ETFC is envisioned as an independent agency under the chairmanship of a full-time chairman with the members representing the line ministry, private sector, regulated entities, industry and consumers. The function of the Commission is to review and approve retail electricity tariff rates and other charges. The regulation provides the basis for tariff fixation. The Nepal Electricity Authority (NEA), a government-owned and controlled utility, dominates Nepal's electricity sector. NEA is the sole actor in transmission, distributes about 99 percent and generates about 75 percent of the public power supply in Nepal. There are also 38 private sector independent power producers (IPPs) that generate about 25 percent and distribute about one percent of Nepal's public power supply.

1.3 Power Sector Reforms

Power-sector restructuring is underway in most of the countries around the world. The basic objective of the reforms is to eliminate monopoly power of the utility and introduce competition through private sector participation. Competition in the power sector is expected to enhance the quality of service and lead to significant cuts in tariff rates. The reforms and consequent restructuring being attempted in the power sector is itself a sequel to globalisation and liberalisation of the economy. Restructuring is resulting in independent power production and competition in generation; decentralisation, privatisation and unbundling of generation and transmission; and even competition in distribution. A broad variety of new institutional and contractual forms within the power sector have evolved along with these changes.

To implement the power sector reforms and create a competitive electricity market, where none existed before, the country needs to implement a wide range of structural and regulatory reforms along with enabling legislation. Such reforms are aimed at protecting the interests of the consumer, investor, government, and other stakeholders. The challenge is to balance the interest of the stakeholders in a manner where the utility's rights can be protected while also protecting the interest of the consumers.

1.3.1 The Initiative

Nepal's power sector is undergoing reforms through different policy and legal measures. The reform process in Nepal started in 1992 when a newly elected democratic government paved the way for the private sector's entry into electricity generation, transmission and distribution. The government introduced policy instruments such as the Hydropower Development Policy (HDP), 1992 and legislations such as the Electricity Act, 1992 and the Water Resources Act, 1992.

The widely sought reform process was accelerated by the introduction of the HDP, 2001, replacing the one introduced in 1992. The policy envisions, *inter alia*, restructuring the power sector through establishment of a regulatory commission to regulate the purchase and supply of power, oversee tariff rationalisation, and issue and approve licences. The policy has paved way for the promotion of competitiveness and efficiency in the electricity sector through environmentally sound power sector development.

1.3.2 The Need

Despite the reform initiatives, Nepal's power sector lacked effective competition due to low level of private sector participation. Factors such as lack of conducive environment owing to the prolonged political instability and conflicting motives among political actors are impeding private sector participation in the sector. Inconsistencies in legal and regulatory frameworks coupled with lack of transparency and accountability in the licensing process causes difficulties for the private sector. The lack of transparency of buy-back rates for hydropower projects and inadequate transmission and distribution networks make the sector non-lucrative for the private players. Hence, the legal and technical monopoly of NEA continues although the ability of NEA to supply adequate and cost-effective electricity has long been questioned.

Against this backdrop, Nepal's power sector is in dire need of effective reforms. Reforms are needed basically to:

- establish a strong, independent and well-resourced regulatory framework;
- create market structures and rules supporting the emergence of efficient wholesale and retail markets;
- create a conducive environment for timely and efficient new investment;
- attract more production and distributing companies;
- put an end to the legal and technical monopoly of NEA;
- safeguard consumer rights by including consumers in the regulatory mechanism; and
- facilitate competition.

The need for a strong and well-resourced regulatory mechanism to improve Nepal's under-developed power sector has been stressed. Such a regulatory body is sought to:

- coordinate and integrate the production, transmission and distribution functions while checking the prevailing malpractices;
- formulate policies and set out priorities to balance the demand for and supply of electricity in the domestic market;
- regulate the electricity tariff rate and reduce it through competitive market practices; and
- reliable, good quality and safe electricity supply that is accessible to all.

1.3.3 Legislative Undertakings

Government's initiative in the reform process led to drafting of two electricity bills with the objective of consolidating laws relating to generation, transmission and distribution of electricity. The Electricity Development and Management Bill contains measures conducive for the development of the electricity industry and promotion of competition through active private sector participation. The bill has provisions for electricity tariff rationalisation. Provisions for acquisition, compensation and resettlement are particularly aimed at protecting the interests of consumers. The proposed law also contains provisions for rural electrification programmes. Its thrust on expanding rural electrification and provisions for management of rural distribution by cooperatives and non-governmental organisations (NGOs) are consumer-friendly. The promotion of the private sector and formation of public-private partnerships in generation as well as distribution is a noteworthy reform agenda item. The bill particularly focuses on ensuring quality and regularity of electricity supply, and consumer safety.

The National Electricity Regulatory Commission Establishment and Management Bill aims to establish an independent regulatory body. The provision for unbundling NEA with time-bound reforms is its salient feature. The bill envisages that restructuring of NEA will take effect only after two years of preparatory work initiated after the enforcement of the Act. The perceived set up consists of separate public companies for generation, transmission and distribution. The government after further consultation may initially opt to have a single distribution company or may choose to have distribution companies statewise.

A single buyer market model in which a transmission company acts as a buyer or a multi-buyer-multi-seller model or any other suitable modification shall be adopted. The trading of electricity shall be permitted through 'Trading License'. Provision of non-discriminatory open access to the national transmission grid subject to available capacity at hand will be facilitated. Similar access shall be provided by the distribution companies as required, given the free play of competitive forces. It is noteworthy that a study has been completed in this regard for setting up a transmission company to own and operate the national transmission grid through technical assistance from the Asian Development Bank's (ADB).

1.3.4 Government's Priority

The latest of the five-year periodic plans – Three Year Interim Plan (2007-10) – addresses the hydropower policy with due recognition of private sector participation, cooperatives, and local bodies in the generation, consumption and export of electricity. It aims at affordable tariffs for agriculture and productive sectors. The plan envisions integration of Nepal's power system with the regional power grid / networks.

Following the recent political changes in the country, the need for high and sustainable economic growth has been emphasised by major political parties and the business community. The development of power sector remains instrumental in realising this goal. Given Nepal's compulsion to import all its fossil fuel needs, the country's potential in electricity generation is the best available option for meeting the increased demand for energy required to fuel rapid economic growth. This requires that the changed political regime gives top priority to reforming the institutional and legal framework that governs Nepal's power sector.

1.4 Proposed Regulatory Framework

1.4.1 Regulatory Framework Envisioned by HDP

The HDP, 2001 identified the following institutions – existing and new – as responsible for regulating the power sector in Nepal:

- ETFC to act as the apex regulatory body with a wider authority;
- Water and Energy Commission to be responsible for load forecasting, system planning, and preliminary study of projects;
- Energy Management Institution to be responsible for training and research in the fields of management, technical, and environmental issues related to electricity; and
- DoED assigned with the functions of issuing licences on a competitive basis, providing services conveniently to stimulate private sector development of hydropower and undertaking hydropower project feasibility studies and studies of multi-purpose projects.

The institutional set up for regulating the Nepal power sector as envisioned by the HDP, 2001 is yet to

materialise. Absence of political will for effective implementation of HDP, 2001 is one of the key reasons.

1.4.2 Provisions in the Proposed Electricity Law

The National Electricity Regulatory Commission Establishment and Management Bill has a provision for establishment of a robust and autonomous commission for overall regulation of the electricity sector. The commission shall be responsible for regulation and monitoring of technical management, fixation of price and tariff competition, and consumer rights protection. The commission shall also be responsible for monitoring the licensees and for enhancement of their organisational capabilities. The commission is also vested with the right to settle disputes related to the electricity sector.

1.5 Involvement of Consumer

Electricity Act, 1992 defines consumer as a person who obtains electricity from the licencee. The Electricity Development and Management Bill identifies consumer as a person or institution that consumes electricity. Consumer involvement is mandatory for ensuring good governance, and introducing checks and balances into the system. However, electricity is a little talked-about issue among civil society organisations (CSOs), academia and the general public in Nepal. People at large do not pay much attention to electricity sector reform and they have had little or no involvement in it. The only issue in the electricity sector that draws public attention is that of persistent load shedding. Consumer rights related to the electricity sector are almost unrecognised in Nepal.

The organisational structure at the policy-making level indicates little consumer participation. Of the six members of ETFC, one is supposed to be a consumer representative. However, a consumer representative is rarely nominated. Devoid of officials, the commission itself is non-functional at present. Likewise, although the Board of Directors of NEA have four independent members, they are not consumer representatives per se. Policymaking in the electricity sector is a top-down process, with government taking all the decisions without seeking inputs from consumers.

Protection of consumer interest is new to Nepal. It was since 1990, only after the restoration of democracy in 1990 that the consumer movement gained momentum. Democratic constitution of Nepal and laws related to consumer protection have been guaranteeing the rights outlined by the United Nations (UN) guidelines for consumer protection. Consumer Protection Act (1998) has been legislated as an umbrella act using all the consumer protection acts. But the Act does not explicitly define consumer rights regarding electricity service. However, it does provide for quality control and checking improper practices in the sector in general.

Notwithstanding the lack of consumer participation in decision-making process, it is the responsibility of consumers to assert their rights and discharge their responsibilities.

2. Baseline Consumer Survey: Methodology and Findings

2.1 Scope

A baseline consumer survey was undertaken in ten select districts: **Ilam, Parsa, Morang, Sunsari, Kathmandu, Lalitpur, Palpa, Rupandehi, Banke and Dailekh** to gauge the level of understanding and awareness of consumers regarding the scope for their engagement in the process of electricity reforms. A sample size of 700 respondents was surveyed.

2.2 Methodology

The survey was carried out in five to ten wards in every district and it was also evident that the local CSOs did not have much outreach to cover their whole district. So it was decided that these CSOs would cover at least 60 percent of the total wards of their home districts.

One person, preferably head of the family or some other adult member in case of non-availability of the head of the family was interviewed from each household.

The survey was supervised by the nodal person who periodically met the survey teams and crosschecked the filled-up questionnaires. The filled up questionnaires were finalised only after the nodal person was satisfied.

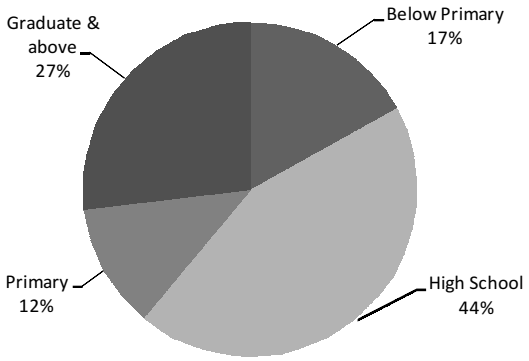
In order to identify and address specific gender concerns, attempts were made to ensure maximum female representation not only among the respondents but in the survey team.

2.3 Findings

2.3.1 Education Level of Respondents

Out of a sample of 700 respondents, 27 percent were graduates; 44 percent were high school pass outs but not graduates; 12 percent were primary school pass outs and the rest 17 percent had even lower education (Figure 61). The survey covered a wide range of respondents in terms of education level. Overall, the education levels in the select districts was quite satisfactory and therefore adequate for ensuring effective participation in grassroot interface meetings.

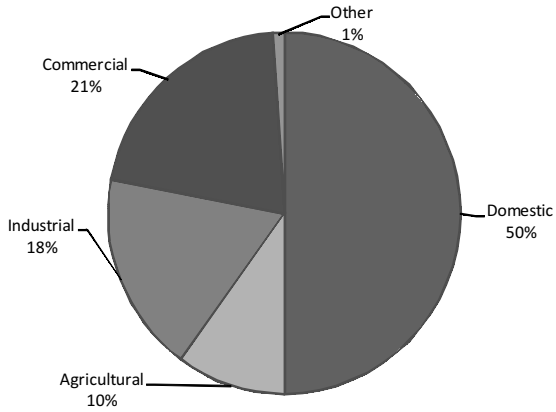
Figure 61: Education Levels of Respondents: Sample Shares



2.3.2 Electricity Consumers

Out of all consumers interviewed (700), 21 percent belonged to the commercial sector whereas 18, 10 and 50 percent belonged to the industrial, agricultural and domestic sectors respectively (Figure 62).

Figure 62: Categories of Respondents: Sample Shares



Out of the four percent non-electricity consumers, 33 percent mentioned that electricity was too expensive for them to afford. Non-availability of infrastructure was cited by 57 percent as an impediment to electricity access. Furthermore, 10 percent of the electricity non-users cited other reasons such as access difficulties in managing infrastructure, lack of time and resources for managing electricity lines, remoteness of residential locations and government apathy for not having access to electricity.

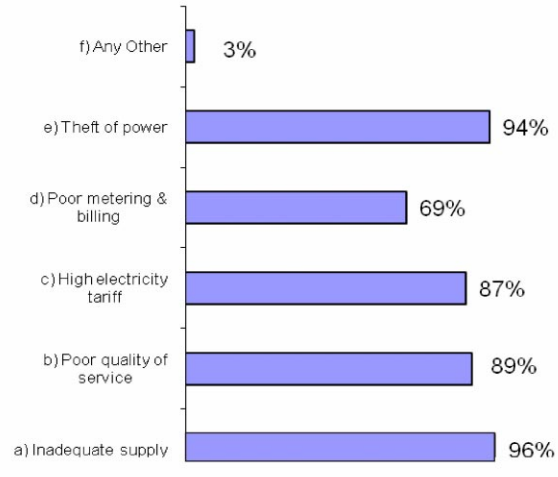
2.3.3 Common Consumer Problems

In order to understand the experiences of electricity consumers in project areas, consumers were asked about the common problems that they came across in the previous year. 96 percent consumers cited lengthy power cuts as the most pressing problem. Power theft, cited by 94 percent, is seen as another major problem for the consumers. For 89 percent of consumers, poor quality of supply with frequent voltage fluctuations was another major problem. Likewise, 87 percent of consumers perceived tariff to be too high and one of the key problems (Figure 63).

69 percent considered poor metering and billing as a problem. Three percent of consumers also cited problems such as lack of protection from electricity-induced hazards, low rate of electrification, high deposit amount, and high minimum unit ceiling.

Despite so many problems, it was found that only 12 percent of the consumers had ever registered a complaint. The reasons for not registering any complaints ever: 55 percent cited lack of hope in

Figure 63: Problems of Electricity Consumers



regard to getting complaints redressed, 22 percent attributed non-registration to the large amount of time involved in registering and then following up on a complaint, while seven percent gave some other reasons. Surprisingly, 34 percent gave no reasons for registering their complaints.

Figure 64: Awareness Regarding Ongoing Electricity Reform Process

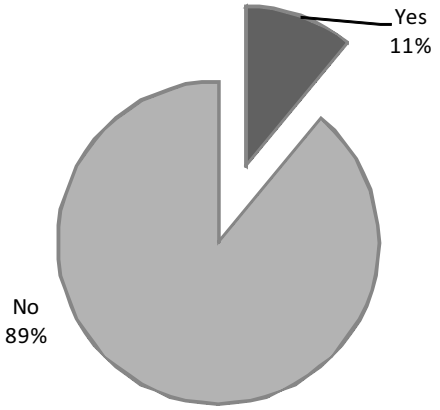


Figure 65: Awareness About the Existence of the Electricity/Energy Regulatory Commission

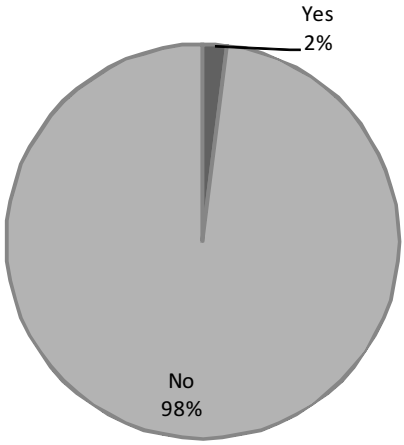
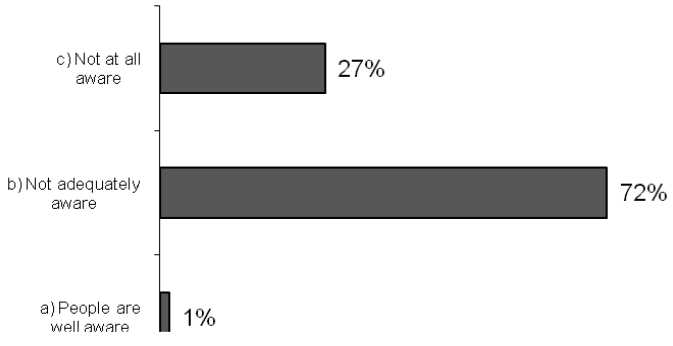


Figure 66: Percentage Incidence of Consumer Awareness



2.3.4 Awareness on the Ongoing Electricity Reform Process

As mentioned at the beginning of this paper, the reform process in Nepal started in 1992 when a newly elected democratic government paved way for the private sector's entry into electricity generation, transmission and distribution. However, not many respondents were aware of the ongoing reform process. Out of 700 respondents, only 11 percent were aware of the reform process while 89 percent of the respondents were unaware about it (Figure 64).

Similarly, very few respondents (2 percent) were aware of the electricity regulatory commission's responsibilities and functions (Figure 65).

2.3.5 Consumer Awareness

The universal perception was that consumers were not adequately aware about the reform process. Thus, they expressed a desire to be informed about important issues related to the electricity sector and the reform agenda (Figure 66).

An important objective of this study was not only to gauge the level of awareness of the electricity consumers about their rights but also to capture their views on effective ways of information dissemination.

In order to enhance awareness among consumers at large, 75 percent suggested the use of mass media like radio, television and street plays, 70 percent suggested holding grassroots meetings and 47 percent suggested organising workshops/seminars. Similarly, 34 percent of the respondents suggested publication of newspaper articles while 22 percent suggested circulation of handouts/small booklets. Two percent of the respondents also suggested other ways of raising awareness, such as by NEA itself, by delivering public lectures on electricity reform issues, providing training to local organisations, posting pamphlets and forming electricity user groups (Figure 67).

2.3.6 Consultation with Consumers

98 percent respondents were of the opinion that consumers should be consulted by the government or the electricity regulatory body in the process of framing laws and policies, tariff-fixation and formation of other regulations.

The respondents identified different areas for consultation with consumers by the government or regulatory body: 82 percent suggested consumer consultation in fixing

Figure 67: Suggestions to Enhance Consumer Awareness Level: Percentage Support for Sampled Consumers

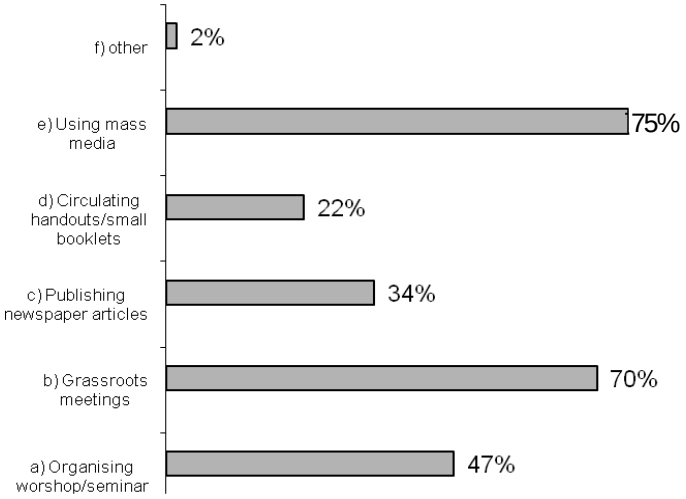


Figure 68: Important Areas for Consumer Consultation: Percentage Support for Sampled Consumers

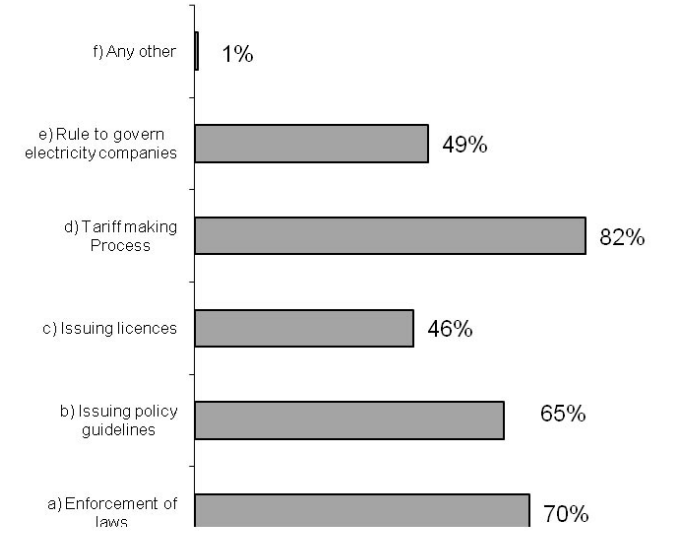
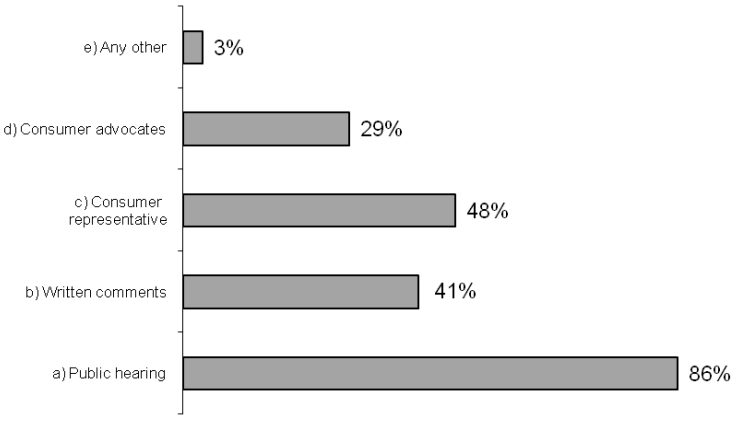


Figure 69: Desirable Methods for Public Consultation: Percentage Support for Sampled Consumers



tariffs, 70 percent suggested consumer consultation in the process of enforcement of electricity-related laws – potential and useful, 65 percent suggested such consultation while issuing policy guidelines, 49 percent suggested consumer consultation while formulating rules to govern the way electricity companies behave, while 46 percent suggested consultations while issuing licences to public / private companies. One percent of consumers identified the need for consultation with them in other areas such as exploring mechanisms for consumer participation and, more importantly, all matters related to electricity reform besides technical ones (Figure 68).

Having identified important areas for public consultation, the next objective of the survey was to identify effective mechanism / s for consumer consultation as viewed by the electricity consumers themselves. 86 percent expressed support for public hearings while 48 percent were in favour of nominating consumer representatives to advisory committees / bodies. 41 percent recommended inviting written comments from consumers on proposed reforms, and 29 percent suggested appointing consumer advocates to government / regulatory bodies. Three percent of them suggested other methods of consumer consultation such as television / radio programmes (Figure 69).

The survey revealed that only one percent of the respondents had ever participated in policy and regulatory decision-making processes in the electricity sector. 92 percent of the respondents were keen to attend a training programme on electricity reform issues.

2.4 Recommendations

The survey findings indicate that Nepal's electricity sector needs reforms. Consumers are facing a wide range of problems, including power theft, poor metering and billing, poor service quality, high tariff and power inadequacy. However, their voice goes unheard by policymakers. The majority of consumers are unaware of the reforms under way in the electricity sector. In general, people do not pay attention to the electricity sector and the government does not take any step to disseminate information on the reform process. The involvement of NGO's

in making consumers aware of the electricity reform process and the role of consumers in it is almost absent. Even well-educated consumers are unfamiliar with the overall energy sector reform process. People seldom register any complaint despite facing a plethora of problems. To summarise, consumer awareness regarding electricity-related issues has not been given due priority by the public at large. Further, effective legal provision for consumer participation in decision-making level is lacking, thus impeding consumer participation in the electricity sector reform process.

On the positive side, consumers are keen on participating in the reform process as revealed in the baseline consumer survey. They feel that they need more knowledge towards that end. There is a need to enhance consumers' understanding of electricity-related issues so as to enable them to participate in the electricity sector reform process. As an overwhelming majority of consumers are not adequately aware of electricity reform issues, mobilising the mass media and holding grassroots meetings, among other measures, can help raise consumer awareness. There is also a need for constituting an effective and efficient complaint-handling mechanism within the institutional set up of the electricity sector.

3. Consumer Participation and their Role in Regulatory Decision Making

3.1 Present Status of Consumer Participation

Three institutions – DoED, ETFC and NEA – are involved in regulatory decision making in Nepal's electricity sector. DoED, under the Ministry of Water Resources, stands out as the major regulatory body in that it issues licences to power projects. Its decision-making process lacks consumer participation. As regards ETFC, a consumer representative is rarely nominated to the commission despite a provision for it. Similarly, although the Board of Directors of NEA has four independent members, none of them are consumer representatives *per se*. This shows that consumer consultation in the decision-making process is almost non-existent.

3.2 Grievance Redressal Mechanism

At the central level, NEA has a Public Relation and Grievance Handling Department led by the managing director. Besides, NEA has technical, administrative and financial sections in each of its offices in 75 districts. As most of the complaints are regarding short circuits, voltage fluctuations and the like, the technical section handles most of the consumer complaints while complaints of a non-technical nature are handled by the administrative section.

3.3 Consumer-friendly Provisions in the Proposed Electricity Law

The proposed electricity law has a number of consumer-friendly provisions. The regulatory body, while issuing licence, is obliged to ask local stakeholders to submit in writing their concerns regarding the expected impacts during generation, transmission or distribution of electricity. There are also provisions for compensation and rehabilitation of people whose land is used for power generation, transmission or distribution. The proposed law delegates the responsibility of operation and maintenance of the generation plants to local cooperative organisations in areas not connected to the national grid.

3.4 Role of Consumers in Regulatory Decision Making

3.4.1 The Need

Nepal's power sector is characterised by lack of transparency in power purchase agreements and fixation of tariff rates, political interference in the award of licences, imposition of conditions by donors, rampant corruption, and resistance by NEA to reforms, including the sector's unbundling. As a result, electricity consumers face a wide range of problems, as indicated in the outcomes of the survey, including high tariffs, power theft, inadequacy and poor quality of power supply. In the absence of consumer awareness and participation in the decision-making process as also an effective regulatory mechanism, these problems persist. Hence, there is huge scope for enhanced consumer participation in regulatory decision making.

3.4.2 The Role

A majority of consumers are not aware of their basic rights and obligations as consumers. Goods and service providers take advantage of this ignorance to make undue profit. Anti-competitive practices like cartelisation, artificial shortage and unjustifiably high prices are common in Nepal. The electricity sector is also characterised by sub-standard quality of service and high tariff rates as well as other practices that adversely impact consumer interests. The principal reason for the continuation of such practices despite the existence of laws prohibiting them is the dismal state of consumer awareness and the lack of consumers to take initiatives to protect their rights. This very lack of awareness is responsible for the weak enforcement of laws aimed at protecting consumer interest.

Consumers, therefore, need to take initiatives on their own to safeguard their rights. The onus is on them to file complaints whenever they encounter any problem, follow up on their complaints with determination, explore available legal options for redressal, and keep themselves abreast of the issues in the electricity sector, including reforms. Another viable option is to voice their grievances and concerns in the mass media.

Lack of unity among consumers in Nepal has prevented them from voicing their concerns and grievances strongly. They must form a pressure group with the assistance of CSOs, to push for regulatory reforms in the electricity sector. By joining forces, they can serve as a watchdog to end the prevailing malpractices in the sector.

3.5 Ways to Ensure Consumer Participation in Regulatory Decision Making

Given that real consumer representatives are not being nominated for decision-making bodies even when there are clear provisions for the same, nominating them would be the first step towards ensuring consumer participation. This should be followed by expanding and deepening consumer representation and participation in such bodies. The existing top-down approach to decision making process should be changed into a bottom-up approach involving wide stakeholder consultations. It is worth noting that such consultation should be *ex-ante* in nature, so that decisions having a bearing on consumers are taken only after receiving inputs from consumers themselves, and consultations are not turned into exercises for securing support for decisions already taken.

Public hearings also contribute to enhancing the role of consumers in regulatory decision making. They are an effective means for getting the views, concerns and grievances of consumers across to policy makers and decision makers.

4. Rights and Responsibilities of Consumers

The universal principle of the rule of law states that it is the right of an individual to participate in the formulation of laws that affect him/her. The basic consumer rights included in the UN guidelines for consumer protection, adopted by the UN General Assembly in April 1985, and updated in 1999 are particularly important in protecting the rights of the consumers. They are as follows:

i. The Right to be Informed

This right stresses provision of facts needed for an informed choice, and protection against dishonest or misleading advertising or labelling. In this context, consumers in Nepal frequently face power cuts without prior notice, i.e. they are not provided the full benefit of this right.

ii. The Right to Choose

Given that the NEA exists as the sole provider of electricity in Nepal, consumers cannot make use of this right which allows consumers to be able to select from a range of products and/or services offered at competitive prices with an assurance of satisfactory quality.

iii. The Right to be Heard

This right to have consumer interests represented in the making and execution of government policy, and in the development of products and/or services is also not implemented in Nepal's case despite legal provisions.

iv. The Right to Redress

This right ensures that consumers receive fair settlement of their claims, including compensation for mis-representation, shoddy goods or unsatisfactory services. As with other rights its enforcement in Nepal is also poor.

v. The Right to Consumer Education

This right empowers consumers to acquire knowledge and skills needed to make informed, correct and confident choices about goods and services while being aware of basic consumer rights and responsibilities and act on them. However, consumer education is seldom provided in Nepal. Electricity sector is no exception.

In addition, Nepal's Consumer Protection Act does not explicitly define consumer rights regarding electricity service. However, it does provide for quality control and checks against improper practices in the service sector in general.

Consumers have the following responsibilities:

- Lodging complaints when they face problems in the supply of electricity and seeking all possible legal remedies.
- Updating themselves on the issues related to the electricity sector, such as cost of generation, power purchase agreements and pricing, and the situation in other countries.

- Serving as a watchdog and making policies and decision makers transparent and accountable.
- Cooperating with the service provider by agreeing to provide land for putting up transmission lines[1].
- Uniting to strengthen bargaining power so as to pressurise the authorities to address their concerns more effectively.
- Reporting malpractices such as power theft to the authorities concerned[2].
- Using energy-efficient appliances and refraining from wasting energy.

Role of CSOs

CSOs have an important role in informing consumers about their rights, roles and responsibilities in regard to the electricity sector.

- Raising awareness of consumers on various issues in the electricity sector, including their responsibility to check power theft.
- Bringing together consumers by, holding public hearings and forming consumer groups so that they can voice their concerns and grievances.
- Providing free counselling services to consumers regarding their rights as electricity consumers and the procedures for redressing their problems[3].
- Serving as a bridge between consumers and authorities.
- Advocating consumer rights, including participation in the decision-making process, and lobbying lawmakers and policymakers on behalf of consumers.
- Suggesting and pressurising the government to set up an office of the Electricity Consumer Advocate that can give voice to the concerns of electricity consumers and protect their interests, provide grievance redressal and represent them wherever the need arises.
- Given the limitations of means and resources, assist the government in training and capacity development of policymakers and lawmakers.

5. Conclusion and Recommendations

On the basis of the baseline consumer survey and an assessment of the existing regulatory mechanism of the electricity sector, it can be concluded that the level of consumer awareness is dismal and consumer participation in the regulatory decision-making process is almost non-existent. Though there are provisions for consumer representation in the policymaking process and in the structure of the regulatory bodies, consumer representatives have not yet been nominated to relevant bodies.

It was also found that consumers, despite facing a host of problems such as power theft, poor metering and billing, high tariff, lengthy power cuts, and quality of service of seldom seek legal remedy by lodging complaints. There is, therefore, an urgent need to raise consumer awareness.

Consumers want to be consulted on various issues in the electricity sector that have a bearing on them: tariff fixation, enforcement of electricity-related laws, issuance of policy guidelines and formulation of laws governing the way electricity companies behave. The authorities concerned should start consulting consumers in these areas.

As an overwhelming majority of consumers consider public hearings to be an effective means of consultation, such hearings should be held. Other ways of ensuring consumer participation are nominating consumer representatives to advisory committees / bodies, inviting written comments from consumers on proposed reforms, and appointing consumer advocates to government / regulatory bodies. Last but not least, there is a need for constituting an effective and efficient complaint-handling mechanism within the institutional set up.

CSOs have an important role to play in raising consumer awareness and increasing consumer participation in the regulatory decision-making process in the electricity sector. Likewise, the proposed electricity law containing consumer friendly provisions should be enacted and enforced at the earliest.

In this context, the RESA project is a timely endeavour. Given the dismal consumer awareness level and sluggish reform process in Nepal, the project is expected to contribute to changing the status quo. It will help raise consumer awareness about their rights, roles and responsibilities, and exert pressure on the concerned authorities and relevant decision and policy makers to consult consumers while reforming the power sector and then will provide improved quality of services. It will also bring together consumers and enable them to articulate their concerns and grievances.

1. The state should increase relevant compensation to a reasonable level. The proposed electricity law is expected to address this problem.
2. This requires awareness and unity among consumers at the ward level.
3. They can encourage consumers to lodge complaints and seek legal redressal of their problems.

Reflections on the Project

"Everyone knows that sustainable development in South Asia requires major reform of the power sector. Too often, however, reform has failed to take into account the needs and views of ordinary consumers nor has it provided skills and opportunities for community workers or academics to play a role. The RESA project is an outstanding exception. From the beginning grassroots capacity building and active involvement of consumer advocates has been blended with best practices from other countries. Baseline surveys have allowed clear measurement of what has been achieved while training and feedback will ensure ensuring capacity. RESA is a great model for other projects".

Allan Asher
Chief Executive Officer, Australian Communications Consumer Action Network

"Consumer participation in regulatory process is the key to protect their interests and making the process accountable and transparent. The initiative taken by CUTS under RESA Project to build the capacity of consumers / CSOs to enable them to effectively participate in the regulatory process is indeed a commendable step. Considering the commitment and involvement of CUTS in protecting and furthering consumers interest, a representative of this organisation has been inducted as a member of the State Advisory Committee of the Commission".

D C Samant
Chairman, Rajasthan Electricity Regulatory Commission

"The RESA Project undertaken by CUTS along with its project partners in Nepal and Bangladesh adds significant value to the body of knowledge currently available on consumer issues in the regulatory and policy issues in the electricity sector. The findings reflect that consumers are keen to get involved in the process and this should be noted by the concerned organizations as an immediate action point. I hope that the Policymakers will utilise this Report in improving the electricity regulatory scenario in India".

J L Bajaj
Distinguished Fellow, The Energy and Resources Institute, India

"CUTS International has undertaken a pilot project for Capacity Building on Power Sector Reform in Bangladesh, India and Nepal. The Power Sector Reform Programme in Bangladesh is unplanned and non-transparent. Besides, in absence of government investment, reform activities have been seriously suffering with lack of coordination and consistency. Under these circumstances, RESA project undoubtedly is significant and valuable in context of capacity building on the power sector reform in Bangladesh".

M. Shamsul Alam
Professor, Electrical & Electronic Engineering Department
Chittagong University of Engineering & Technology
Bangladesh

"The RESA project implemented by CUTS is a unique effort to build the capacity of electricity consumers in Rajasthan. Infact, CUTS has been active in Rajasthan in the area of electricity since many years and I happened to be a witness of few such programmes, when I was Supdtt. and Chief Engineer in the erstwhile RSEB. Like always, the efforts through RESA has not only contributed in raising the consumer awareness level on rights but also their responsibilities and it has been able to provide a better platform to improve relations among consumers and utilities".

R.G. Gupta
Chairman and Managing Director, Ajmer, Jaipur and Jodhpur Discoms, Rajasthan

"...a valuable study produced by CUTS International on electricity reforms and regulation in Nepal, Bangladesh and two states of India. It makes a point that around 50 percent of their population have no access to electricity due to rampant theft, poor metering, billing and collection, unaffordable tariffs, poor quality of electricity service and frequent shortages. To overcome this situation, one of the solutions is to induce the private sector to enter the sector and for that policies have to change. These lessons come clearly from this study".

S L Rao
Chairman, Institute for Social and Economic Change, India

"The Regulatory Reforms in South Asia (RESA) project being carried out under the direction of CUTS is an ambitious and important project. The past two decades have seen dramatic transformations in the electricity industry, including privatisation, introduction of competition and use of new forms of regulation. Too often the people that have suffered as countries 'experiment' to find workable structures are the poorest, most vulnerable consumers. The value of this project is that it seeks to build capacity in the vulnerable groups so that they have a voice in the process and can ensure that their interests are represented throughout the process".

Steve Thomas
Senior Research Fellow, Public Services International Research Unit

"I have observed and actively participated in events organised as part of RESA project in Nepal, which brought together consumers, service providers and other key stakeholders. This interaction has definitely helped improve the service and the relationship between the utility and its consumers. The project has been successful in creating short-term linkages among key stakeholders, such as service providers, consumers, lawmakers, special interest groups and pressure groups. I wish that SAWTEE and CUTS International will continue with the project, which deserves appreciation and compliments".

Sher Singh Bhat
Director System Operation, Nepal Electricity Authority

"Electricity Act 2003, opened up the avenues for Reform and Restructure of Power Sector to make it an efficient and self-propelling vehicle for economic advancement. One of the biggest stakeholders in the electricity market are the consumers. So it is essential that this section of stakeholders have a proper clarity about the electricity market. CUTS International has contributed reasonably in raising consumer awareness about reforms in electricity sector – thus making it effective. I have had the privelege of attending some workshops, seminars and conferences of the RESA Project conducted by CUTS for the state of West Bengal. I am sure that such efforts will help in developing a matured electricity market which will offer greater transparency for all stakeholders including consumers. Efforts such as RESA project need to be encouraged and continued".

Prititosh Ray
Former Member, West Bengal Electricity Regulatory Commission.

"I had the opportunity to associate with the operation of the RESA project in West Bengal during my tenure as the State Power Secretary over 2005-09. During this period, I was involved intensively, in conceptualising and design of programme for restructuring the state-owned power sector to achieve alignment with the requirements of the Electricity Act, 2003.The RESA project offered a welcome initiative to allow the proactive participation of electricity consumers in the complex but critical reform process through a holistic understanding of its different dimensions commencing with the requirements and process of its regulation to the nuances of its delivery to the homes of individual consumers. The project was, therefore, supported in all its spherers by the state-owned power companies that succeeded the erstwhile West Bengal State Electricity Board from April 2007. It was my experience that the efforts invested by CUTS were commendable. I believe that the increased awareness that this project has generated will allow civil society and other electricity consumers' fora to contribute meaningfully in improving the delivery levels of electricity – a vital component for sustaining economic growth in the State of West Bengal".

Sunil Mitra
Revenue Secretary

The RESA model: Empowering grassroots consumers

The unique approach adopted by RESA model is to create a platform for the grassroots consumer and policy makers to engage and to ensure that the views of the grassroots consumers are fed into the regulatory decision making process. Though consumer participation is the key to a representative, independent and balanced regulatory process, in South Asian countries, consumer participation has been sub-optimal, poorly informed and therefore of poor quality. Most consumer groups lack the capacity/ resources to comprehend/take up issues related to electricity regulation. Such sub-optimal representation undermines the popularity of regulatory reforms. This state of affairs needs to be remedied through capacity building of CSOs in regard to policy advocacy so that these organisations can then empower consumers.

Thus, with the aim to build their capacity and understanding, as part of the project activities, grassroots interface meetings (GIMs) were conducted in the respective project territories. The GIMs involved engaging consumers, CSO's and equipping them with necessary information, knowledge (on process and contents, both) and skills so that they are able to perform the role of an effective watchdog and effective facilitator of regulatory reforms. The GIMs proved to be useful not only for consumers, but also for regulators as well as utility representatives who participated in the event as resource persons.

> *"The biggest advantage of the grassroots interface meetings was that they were able to make the consumer aware of their responsibilities and rights. Further, the service providers (utility companies), will also benefit as consumers will be more vigilant about electricity problems, including power theft".* Suresh Singh Jadon, Asst. Engineer, Jaipur Discom, Dholpur, Rajasthan, India

The project has presented a unique opportunity for meaningful interaction between the service providers (utilities) and clients (consumers). The same has been well documented in a video documentary, "Powered to Grow". While creating opportunities of interface between the utilities and the consumers, the project has helped authorities understand the ground realities and consumers to understand the various limitations/problems faced by utilities.

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