SOUTHERN AFRICA GLOBAL COMPETITIVENESS HUB

Regulation for Practitioners
Building Capacity through Participation

Tariffs and Tariff Design

Promoting Access to the Poor

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Overview

- Definitions and background
  - Reform Rationale
  - Poverty
- Rationale for Pro poor regulation
  - Why pro poor regulation
  - Impacts of regulation
  - Low access levels
- Role of Regulation
- Key challenges to pro poor regulation
  - Regulatory mandate
  - Price regulation
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  - Protecting poor consumers
- Conclusions

Poverty

Poverty

- Poverty is the deprivation of common necessities such as food, clothing, shelter, modern energy services and safe drinking water, all of which determine our quality of life. It may also include the lack of access to opportunities such as education and employment which aid the escape from poverty and/or allow one to enjoy the respect of fellow citizens.

- The state of living on less than $2 a day, according to the World Bank. Poverty can also represent a lack of opportunity and empowerment, and bad quality of life in general.

Reform Rationale (Recap…)

Reform in the African Power Sector – Rationale

- The dissatisfaction over the poor technical, financial, and managerial performance of the state-owned electricity utilities.
- The inability of utilities and the Government to mobilize sufficient investment capital for the electricity sub-sector's development and expansion.

Rationale for Pro-Poor Regulation

- Poverty is complex and there is no single cause and key concern is lack of access/inadequate and unreliable supply resulting in the following impacts:

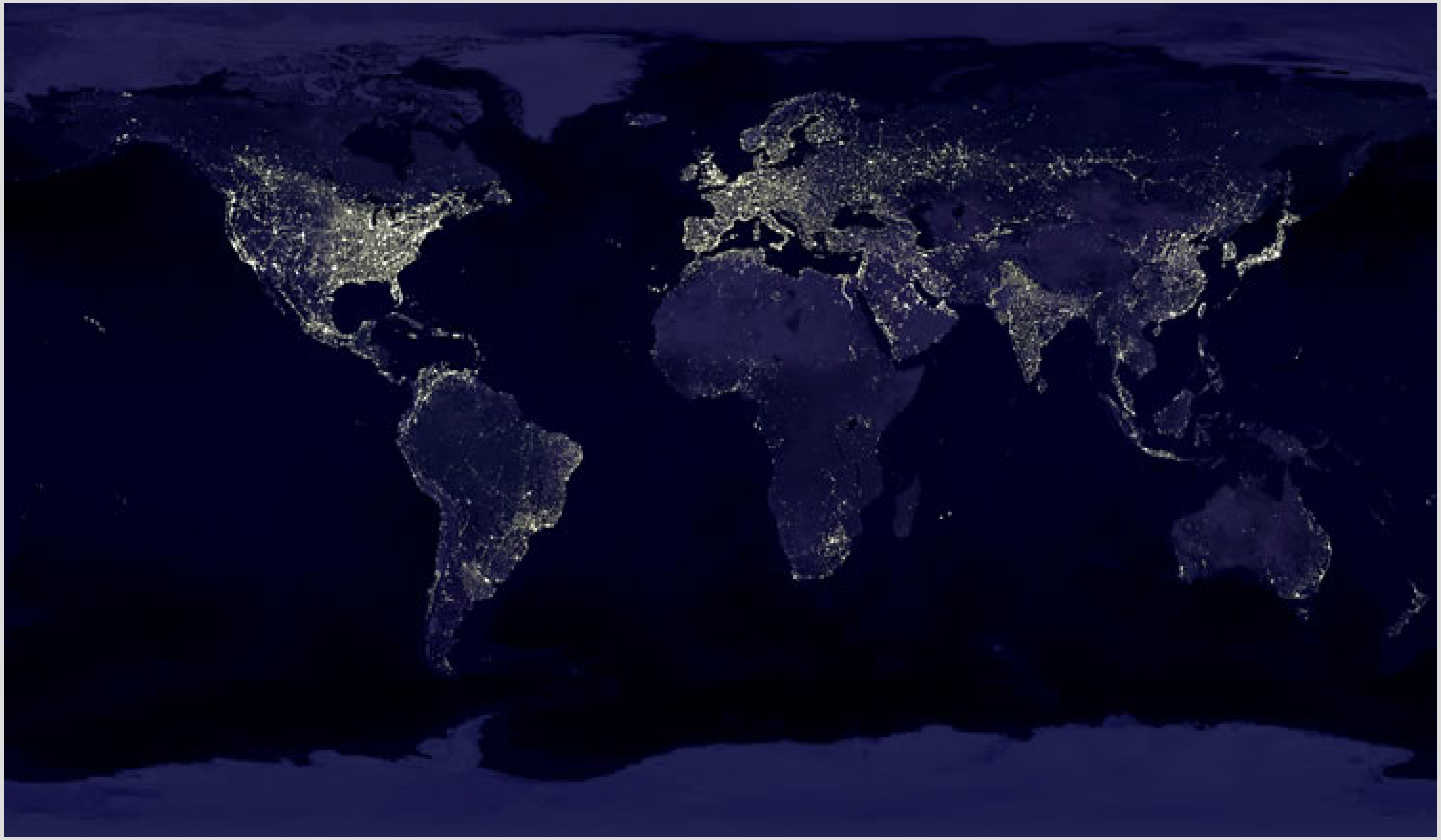
1. Economic
   - Livelihood – more opportunities
   - Productivity
2. Social
   - Health and well being
   - Education levels
   - Social standing and welfare
3. Environmental
   - Pressure on alternate resources -deforestation

Regulatory Impacts

- How can regulation contribute to poverty reduction?
  - Direct
    - Price regulation
    - Assess impact of policy on poor
    - Designing regulatory mechanisms and methods that improve service provision for poor
    - Understand the needs of poor / who / where located / what are the barriers to access?
  - Indirect
    - Being efficient (least resource cost) and effective (achieving intended goals)
    - Promote economic growth policies- infrastructure investments

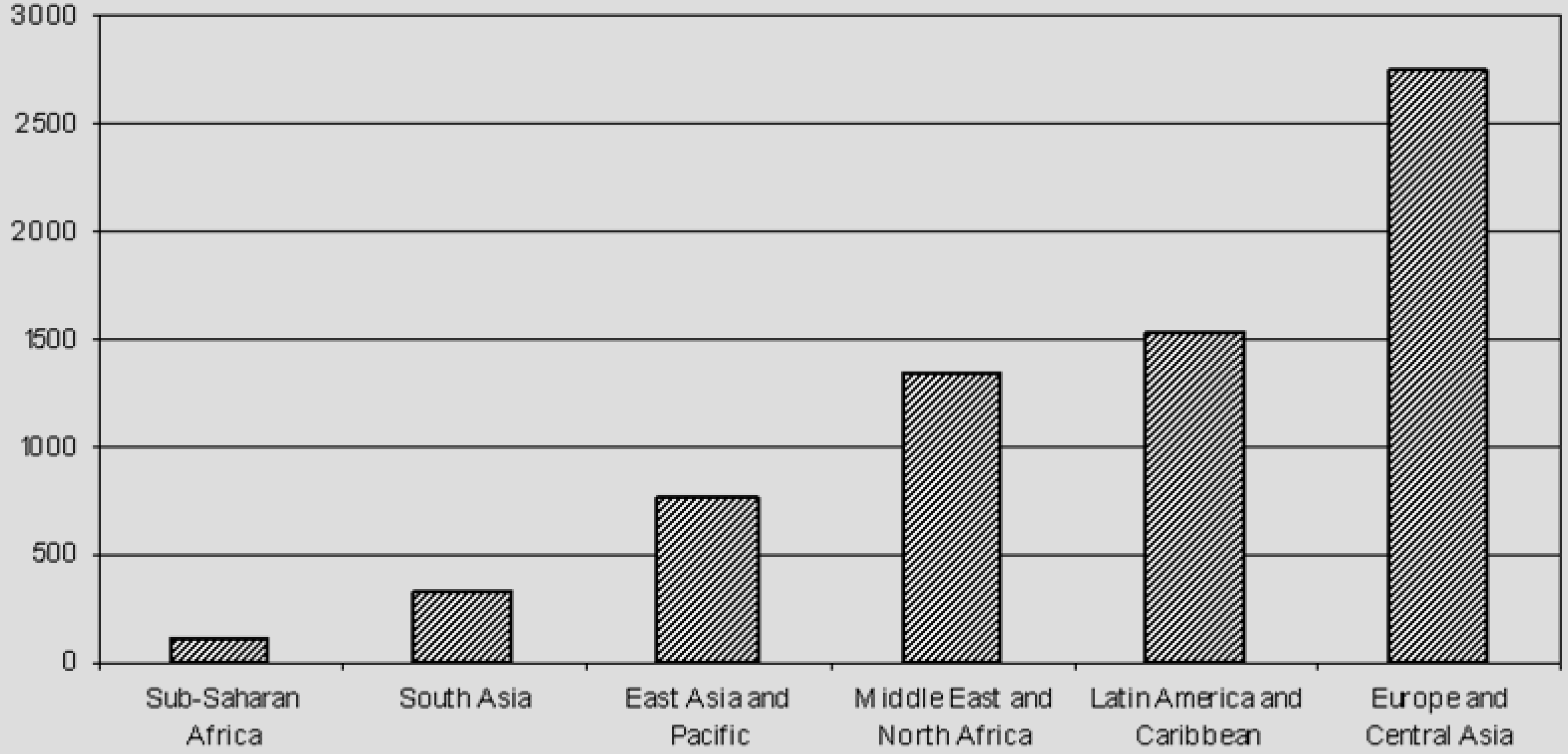
Expanding Access levels is priority for the poor

Satellite photo of world at night



Access Levels

- Electricity Consumption by Region in 2000

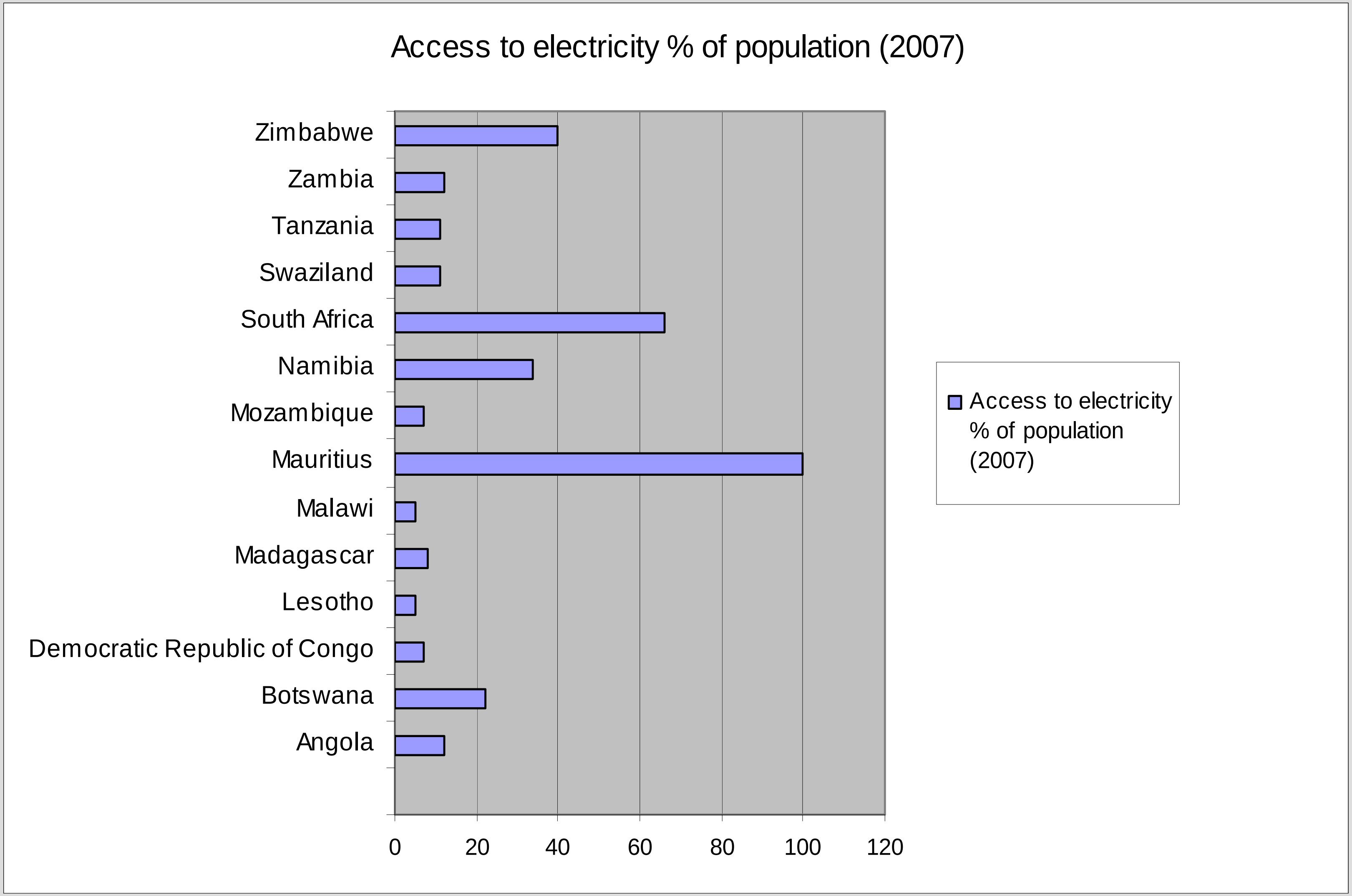


Access Levels (continued)

- **Rural and Urban Electrification levels (2000)**

Country	Urban	Rural
Mozambique	<20%	<2%
Malawi	<40% (38)	<2%
United Rep of Tanzania	<40% (39%)	<4%
Zambia	<50% (48%)	<5%
Zimbabwe	<85% (83%)	<20 %(19%)
South Africa	<80% (78)	50%

Access levels 2007



Source: World Bank (PPIR)

Stakeholder roles

- Government role (ministry)- Defines policy objectives
  - E.g. Social development objectives e.g. target levels of access for rural and marginalized communities
- Utility or private service provider – provide quality service and make profit (viability)
- Regulator – Develops regulations to implement and enforce government policies
- Regulatory Roles
  - Set service standards
  - Define tariff setting processes/principles
  - Customer rights and obligations

Key Role-Balancing the interests of government/service provider or investor/customer

Key Challenges to Pro- Poor Regulation

- Evaluating objectives /mandate of the existing Regulator
- Regulating Prices
- Regulating the Service Quality
- Regulating Informal Service Providers
- Protecting Consumers

The Mandate of the Regulator

Existing regulatory arrangements

- Regulators are entrusted with regulating utility service providers yet in most countries the poor fall outside these services
- Regulation of access expansion
  - Targets too ambitious
- Creation of conducive environment to remove barriers to entry into the sector
- Key issues
  - Are they sufficient incentives to increase access to sector by other players and hence increase access by poor to service?
  - Is there adequate funding in place?
  - Does the regulator have tools and instruments to regulate access targets?

If not -how does the regulator protect the poor ?

Regulatory Objectives (priorities for the group)

		A	B	C	D	E	F	ALL
1	Strong incentives for utility costs to be minimized	1						
2	Tariffs are cost-reflective (cost causality)		2	1	1	1	1	
3	Financial sustainability: utility earns adequate return on capital	2						
4	Tariffs are affordable by the poor	4		4		3		
5	Earnings stability and predictability for the utility							
6	Price stability and predictability for consumers		4		4			
7	Price risk is shifted away from consumers						3	
8	High Technical supply and customer service standards are maintained		1		2	4		
9	Customer complaints are resolved in a timely manner			2	3			
10	Regulatory decisions are politically acceptable							
11	Rural and urban poor electrification is encouraged						4	
12	Public or Private Investment is attracted into the sector	3	3	3		2	2	
13	Flexibility to adjust to changing circumstances							

Regulating Pricing

- Common belief among stakeholders that charging the lowest tariff is the more direct way to benefit the poor
- Common problems -low tariffs/too high tariffs (rare) / subsidies (inadequately targeted)
- Impact of high tariffs
  - Limited access by poor
  - Lowers competitiveness of customers (business)
- Impact of Low tariffs
  - Insufficient revenues to cover costs
  - Poor service quality
  - Failure to expand service/increase access
  - Alternatives often too expensive

Regulating Pricing cont'

- **Traditional Approach to Affordability**

Policy	Problem
Government subsidizes utility to make service affordable	Many poor people are not connected so they do not benefit
Tariffs are kept below cost	Utility can not provide good service or finance expansion- poor people do not get access
Service to poor is provided by cross subsidy	Utilities avoid serving poor or other services are not affordable to poor

Regulating Pricing (cont)

- Key questions

1. How are the tariff principles defined- do you have access for poor or equity or cost recovery as part of key objective?
2. Do tariff structures target subsidies to poor consumers?
   - Are subsidies available to all?
   - What is size of first block- if inclined block tariff is used?
3. Can poor customers afford new connections?
   - Social connection policy does it benefit the poor?
4. Policy – what is the current policy on improving access to the poor? What are your recommendations as a regulatory practitioner?

Tariff Principles

- **Key principles**
  - Cost reflectivity
  - Fairness/Equity –all consumers pay for the cost they impose on system
  - Elimination or reduction of subsidies
  - Reliability- price remains stable over time
  - Simplicity and adaptability (tariff design)
- **Consistency in application of sound principles**
  - Encourage competition
  - Efficiency- incentive mechanisms
  - Optimum investment

Consumption Subsidies

- Untargeted – given to all consumers
  - Sub-economic tariff
  - Low collection and no disconnection policy
  - Illegal connections – no enforcement of rules or prosecutions

- Targeted
  - Quantity targeting
    - Increasing block tariff (IBT)
    - Decreasing block tariff (DBT)
    - Volume differential tariff (VDT) or disappearing 1st block (use consumption with IBT – <100kwh pay 3c/kWh & >100kWh pay 4.5c/kWh
  - Service level
    - Free water from public taps/ free electricity to the poor households
    - Low rates for rural consumers (geographic)
    - Low tariffs for agricultural consumers
    - Low tariffs for mining industry – Copper Mines
    - Social tariff for special class- vulnerable or poor
    - Discounts for pensioners

Connection Subsidies & Source of funding

- Untargeted
  - No connection fee –free connection for all new customers
  - Subsidised funding for connection fees
  - Flat connection or part subsidy
- Targeted
  - Reduced fee for household –through contributions in labour or materials
  - Social connections
- Source of funding
  - Government – grants to utility/ take over of debt/ loan guarantees
  - Other customers- cross subsidies
  - Not funded at all- results in poor service

How to Improve pro poor price regulation

1. Improve subsidy design to include cost recovery
   - Cross subsidy by service provider (between customer categories)
   - Direct subsidies to service provider by government
   - Targeted subsidies
   - Effective Residential Tariffs by Level of Consumption.doc

2. Use connection rather consumption subsidies
   - Subsidize connections and charge correct prices for consumption to encourage efficient use

3. Identify the poor deserving consumers
   - Know who are the poor and what are their needs
   - Are the poor willing to pay?

How to Improve pro poor price regulation cont’

4. Improve targeting- reduce size of first block
   - Price other blocks correctly
   - Existing subsidies Subsidy Types.xls
5. Match income cycles of the poor with payment for services
   - Know your customers income cycles e.g. farmers adjust to their income cycle
6. Improve metering system
   - Prepayment – self regulating
   - Load limiters –punish poor and reward the rich
7. Policy Interventions
   - Continuously evaluate your impact – are the current mechanisms improving the access of the poor? if not what needs to be done and consult the poor??

Smart subsidies (SS) and other interventions

- Smart subsidies are a process used to provide the minimum required subsidy to bridge a defined access gap using a comprehensive bidding process known as least cost subsidy auction.
- Success of SS is in telecoms due to good regulatory practices include good price regulation, flexible licenses, allows for innovation. For the power sector this can be done through non grid options:
  - Dealer model (solar pv)
  - Concession model – use RESCOs
  - Retailer model

- Other interventions
  - Improved operational efficiency of utilities
  - Cost reduction
  - Reduced capital costs through better planning and project management
  - Increased revenue collection
  - Use of alternate technologies

Regulating Service Quality

- One of the key role of regulator is to set service standards that customers want
- Key issues:

1. Are quality of supply standards well defined?
2. What is the cost of meeting these standards?
   - Best practices adopted from developed world
   - Is the cost of meeting standards a barrier for poor consumers?
3. Is this quality defined by customers?
   - Example from the water sector in Jakarta
     - ✓ Surveys found main complaints were supply interruptions and low pressure
     - ✓ What did the customer want?- reliable clean water not necessarily portable

How to Improve service quality regulation for poor

- Adapt standards and encourage innovation
  - Consider cost versus benefits
  - Light handed regulation
- Use penalties (for failure to meet standards) when appropriate
  - Use benchmarking
  - Self regulation
- Key questions
  - Are quality standards set at appropriate levels to meet needs of poor?
  - Are appropriate quality monitoring mechanisms in place?

Adopt flexible approach to service quality in order to give incentives to service providers to cut costs and innovate whilst meeting minimum standards

Regulating the ‘other market’

- Regulators usually have challenges of regulating other formal or informal service providers of alternate services (especially in water sector or Rural Electricity Service Companies (RESCOs)
- Key issues:

1. Allow other players- recognize the role of informal or small formal service providers (RESCOs)
2. Decide on what critical aspects to regulate
3. Do the existing rules give incentives to alternate service providers to fill in the access gap?
4. Consider the role of main service provider – partly regulatory/provider of last resort

Develop competition framework which allows a wide range of service providers

Protecting Consumers

- Poor customers often lack a formal mechanism to relay their complaints and obtain redress (lots of people claim to be advocates of the poor do not necessarily address poor concerns)
- Key issues:

1. Organize consumer groups –poor customer’s voice
2. Feedback mechanisms
3. Critical to develop localized regulation especially for informal sector

Develop mechanisms to address complaints from all customers including the most marginalized

Pro Poor Regulation –European measures

Presentation by Eric Dyevre at the AFUR Conference

- Legal Framework-2003 EU Directive provided for universal access and public service obligations including customer protection
- French Case- In 2000 introduced a social electricity tariff which benefited over 720000 vulnerable customers by 2008 funded through the solidarity fund financed by electricity suppliers
- EU customer service charter in 2007
  - Define special needs customers
  - Address energy poverty
- Role of the Energy Regulators
  - Community legislation states that the energy regulators will contribute to ‘ensuring high standards of universal access and public service, to the protection of vulnerable consumers, and to the full effectiveness of consumer protection measures’
  - To this effect EU regulators have done the following:
    - Status review on the definition of vulnerable consumer
    - Identify their share of population
    - Reviewed definitions of suppliers of last resort

Conclusion

1. New regulators have problems in setting own priorities in terms of pro-poor regulation
   - Overwhelmed by scale of challenge
2. Regulators need to develop relay mechanisms that allow them ability to perform regulatory tasks on the ground
   - Need to gather information on where the poor are, how do they get service and preferences
3. Regulators need to promote relationships between various stakeholders to develop pro poor regulatory arrangements
   - Improving service delivery for poor might mean change in regulatory frameworks, policy etc.
   - Impartiality -Arbitrate fairly in conflicts
4. Regulators need to create partnerships as a way of dealing with regulatory constraints- regulators can not resolve issues alone
   - Avoid regulatory capture
   - Neutral arbiters within sector

Conclusion cont'd

5. The subsidies alone do not remove the barriers to access by poor
6. Improving the utility efficiency is critical
   - Increasing revenue collection
7. Removal of regulatory barriers like:
   - Poor pricing policy- sub economic tariffs
   - Poor subsidy design
   - Lack of incentives for entrepreneurial solutions
   - Avoid top-down approach to stakeholder engagement
   - Look at **citizen** issues not **customer** (this will include the un-serviced majority) – use RESCOs

Rethinking the Classic Independent Regulatory Model

- *THEN*
- *"A requirement of all power lending will be explicit movement toward the establishment of a legal framework and regulatory processes satisfactory to the Bank…………this requires countries to set up transparent regulatory processes that are clearly independent ….."*

- Source: The WB's Role in the Electric Power Sector
- World Bank Policy Paper 1993

NOW

".. a credible regulatory system requires more than a formally independent regulatory entity……other transitional arrangements may need to be established…. including limiting the amount of discretion that regulatory bodies have in setting prices and key parameters.."

Public and private sector roles in the supply of electricity services

Operational Guidance for World Bank Group Staff 2004

Thank you for your attention!!

Discussion Questions?

What are the pro poor pricing mechanisms in your countries?

Include some policy interventions which you would like to propose to government ?