

# Water, Electricity, and Telecommunications in the Caribbean: Benchmarking Sectors and Systems

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# I. Introduction

Survey our understanding of performance-drivers in infrastructure sectors

Focus on Benchmarking Service Provider Performance

- Information asymmetries limit pressures for reform and can contribute to dysfunctional social conflict

Four sources of conflict in the design and implementation of water policies: authority conflicts

- Jurisdictional disputes
- Cognitive conflicts
- Values conflicts
- Interest conflicts

Methodologies for evaluating regulatory systems

## 2. Water

- International Benchmarking Network for Water and Sanitation Utilities has data from 85 nations
- Inter-American Development Bank Project by PURC (Oct 2007)
- Key lessons from Central America:
  1. Data must be viewed as important and useful for the company
  2. Avoid Duplication of data storage files
  3. Formal Responsibilities: Data Position (rather than the person)
  4. Clear variable definitions
  5. Factors external to the company accounted for
  6. Data disaggregation improves decision-making
  7. Better operational data collection procedures are needed
  8. Information technology is necessary, but not sufficient
  9. Transparency: company information needs to be public
  10. Capacity building necessary in the area of metric benchmarking

# 3. Electricity

- “Benchmarking Data of the Electricity Distribution Sector in the Latin American and Caribbean Region 1995-2005”
- 249 private and state-owned utilities (in 25 countries)
- 26 variables indicating coverage, output, input, labor productivity, operating performance, quality and customer services, and prices

## Current Sample Includes

- Belize,
- Dominican Republic,
- Antigua and Barbuda,
- Dominica,
- Grenada,
- St. Kitts and Nevis,
- St. Lucia, and
- St. Vincent and the Grenadines

# 3. Electricity Studies

- Early Studies:
  - Domah, P. (2002). “Technical efficiency in electricity generation—the impact of smallness and isolation of island economies,”
  - Jamasb and Pollitt (2002). “Benchmarking and Regulation: International Electricity Experience, *Utilities Policy*.”
- Difficulty in interpreting relative rankings of public vs. private utilities
  - Berg, Lin, and Tsaplin, *Journal of Regulatory Economics* (2005)
  - Ukraine, same regulatory incentives for public and private
  - Good and bad incentives affect utility behavior and performance
- Potential for contributions by Regional Networks

# 4. Telecommunications

- Regulators often share information on interconnection, consumer prices, and other performance
- World Bank study compares cost of three minute local calls, cost of three minute off peak mobile calls, and cost of three minute calls to the U.S.
  - Public policy towards cross-subsidies
  - Extent of market liberalization
  - Interconnection prices
  - Cost containment
  - Innovation

# Regional Comparisons: Telecom

- Recent study ranks the OECD nations in the area of telecommunications
- Performance variables:
  - Number of access lines
  - Total staff
  - Number of internet hosts
  - Total number of subscribers
  - Total telecom revenue
- Analytic Hierarchy process (AHP) and data envelopment analysis (DEA)

# 5. Systems of Regulatory Governance

- Extensive rankings of agency have been prepared for states in both Brazil and India
- Comparisons
  - Legal systems
  - Regulatory autonomy
  - Capacity-building
  - Tariff design
  - Financial sustainability of the agency
  - Regulatory strategies towards key stakeholders



## 5.1 World Resources Institute Good Governance Indicators: Transparency, Participation, Accountability, and Capacity

- WRI: *The Electricity Governance Toolkit: Benchmarking Best Practice and Promoting Accountability in the Electricity Sector*
- Sixteen policy indicators & Fifteen regulatory indicators
- Social and environmental implications of processes
- For example, the “Effective functioning of the legislative committee”
  1. Disclosure of interests
  2. Active committee
  3. Reasoned reports
  4. Proactive committee
  5. Public consultations
  6. Transparency of submissions to committee
  7. Transparency of committee reports
  8. Reporting by executive
- Level of detail required for data collection seems excessive
- Applications to India: Elevating form over substance

## 5.2 Regulatory Governance: Autonomy, Decision Making, Decision Tools, Accountability—Assessment and Measurement of Brazilian Regulators

- Twenty-one regulatory agencies in Brazil
- Ranked based on agency design and regulatory processes
  1. Autonomy
  2. Decision-making
  3. Decision tools
  4. Accountability/control
- Total of 96 questions
- Information on processes
- Weights given the many factors
- Focus on process rather than substance or sector performance

*Regulatory Governance in Infrastructure Industries: Assessment and Measurement of Brazilian Regulators (April 2006), PPIAF-World Bank.*

# World Governance Assessment (WGA) - Surveying Local Stakeholders

- United Nations University in 1999 and Overseas Development Institute in London since 2004
- Sixteen countries are evaluated in their large study, focusing on six principles in six areas
- Country reporter who interviews leaders from ten stakeholder groups:
  1. Government
  2. Parliament Civil Service
  3. Business Media
  4. Religious Organizations
  5. Legal and judicial field
  6. Institutions of higher education
  7. Non-governmental Organizations
  8. International Organizations
- “Examines rules rather than results”
- Focuses on political morality rather than economic efficiency

# Actors, Arenas and Policies

- Inter-American Development Bank Research Department WP
- “Stories” that emerge from different perspectives
- Key socioeconomic interests:
  1. Political Actors (key socioeconomic interests)
  2. Mechanisms utilized by socioeconomic actors in their political demands (including campaign contributions and media campaigns)
  3. Venues: arenas of the policymaking process (including political institutions)
  4. Policy domains (policy areas—time frames, institutions, and historical context)
- “The Political Economy of Productivity”

## 5.4 Institutional Assessment: Sector Laws, Policies, Administration, and Performance

- World Bank-funded study by Saleth and Dinar
- Comprehensive questionnaire administered to country experts, specialists, and policymakers
  - Water Law, Water Policy, and Water Administration
- Link institutions to actual sector performance.
- Beyond issues of accountability, transparency, and inter-agency conflict resolution to outcomes
  - ***physical, financial, economic efficiency & equity performance & progressiveness of water institution*** (adaptive capacity, scope for innovation, openness for change, and the ability to handle future water challenges)
- “Evaluating Water Institutions and Water Performance”

## 5.5 Drivers of Change: Sector Governance and Political Economy

- UK Department for International Development funded the Overseas Development Institute
- Evaluating how donor groups can evaluate governance in the water sector, including: How can understanding be translated into strategies and actions?
- Importance of incentives in determining sector outcomes:
  1. Who determines who gets what, where, and how?
  2. What are the incentives that influence these actors?
  3. What are the external factors that interact with these incentives?
  4. How do these change over time?
- Key issues include government effectiveness, financial management, transparency, engagement of civil society, and pro-poor policies.

## 5.6 Infrastructure Regulatory Systems

- *Handbook for Evaluating Infrastructure Regulatory Systems*,
  - World Bank book by Brown, Stern, & Tenenbaum (2006)
  - The “Gold Standard”
- Three types of evaluations
- Institutional design, the regulatory process, market structure, and other features of the electricity industry
- Substance of rules and Incentives, as well as process
- Sector Performance
- “Regulatory Governance and Sector Performance: Methodology and Evaluation for Electricity Distribution in Latin America,” Andres, Guasch, Diop, and Azumendi (2007)

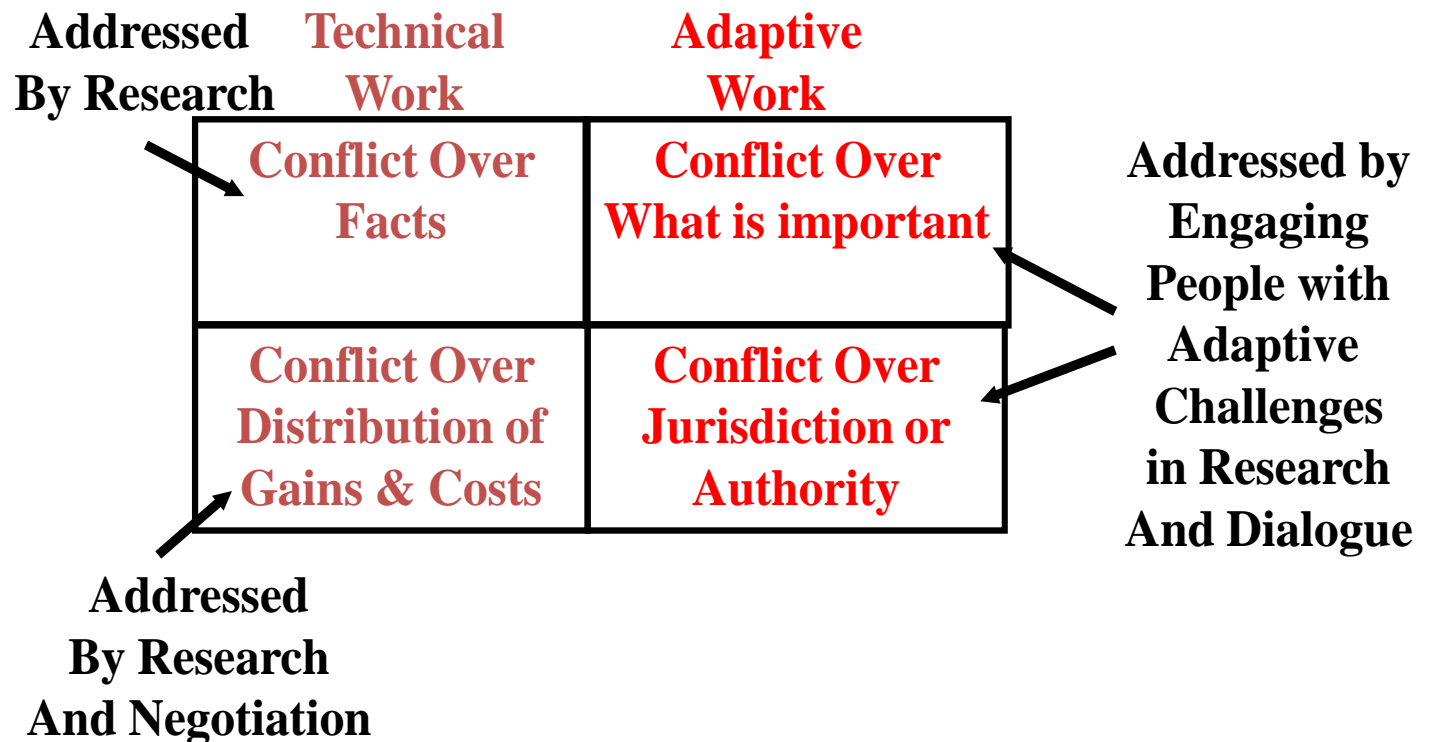
# 6. Concluding Observations - I

- Benchmarking helps regulators establish incentives
- Provides a technique for identifying the impacts of those incentives (and for evaluating regulatory systems)
  1. Document performance trends
  2. Establish baseline comparisons
  3. Determine reasonable targets
- Allows robust comparisons
- Requires strong technical capabilities
- Facilitates adaptive work that engages stakeholders in open dialogues



# 6. Concluding Observations - II

Figure 1. Conflict Resolution Matrix



From Mark Jamison

# 6. Concluding Observations - III

- **OOCUR** as catalyst: collection/analysis of benchmarking information: Potential for an OOCUR Benchmarking Task Force
- **Operators** can only manage what they measure
- **Regulators** can only provide incentives for good performance if trends are understood
  - Current performance has been quantified
  - Realistic targets are set
  - Benchmarking is necessary, but not sufficient, for sound regulatory decisions
- **Others:** Financial community, international donor agencies, and citizen groups—Regulatory Systems
  1. In Brazil, India, and the U.S.
  2. Initiate a self-assessment
- Identify the links between institutional constraints, regulatory policies and sector performance.