

EarthTrends Featured Topic: The Power of Choice: Governance and Outcomes in Electricity Sector Reforms

Source: *Power Politics: Equity and Environment in Electricity Reform*

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During the 1990s, conventional wisdom about the electricity sector was turned on its head. Previously, electricity had been considered a “natural monopoly,” and the electricity sector in most countries was either owned or strictly regulated by the government. Particularly in developing countries, government leadership in the development and use of electricity was part of a broader “social compact” (World Bank 1988).

Then, with astonishing speed, a revolution in thinking swept the sector. Several countries undertook major reforms, ranging from opening their electricity markets to independent power generators to broad-based reforms remaking the entire sector around the objective of promoting competition (*Figure 1*). A 1998 survey of 115 developing countries found that nearly two thirds had taken at least minimal steps toward market-oriented reforms in the electricity sector (Bacon 1999). Due in part to these

and Eastern Europe between 1990 and 1999 (World Bank 2000).

Debate continues as to the viability, applicability, and feasibility of these market-led electricity reforms. More certain, however, is the realization that decisions made now about the institutional structure and functioning of the electricity sector in emerging economies will shape patterns of development, including social and environmental outcomes, for decades to come. A sector designed to ensure access to electricity for all could bring considerable social benefits to developing countries, including opportunities for education, better health and nutrition, and entrepreneurship. A sector designed with environmental considerations in mind could significantly reduce environmental damage from power plant emissions, both locally and globally. Failure to

How are developing countries managing the complex, often contentious process of electricity sector reform? Whether and how various interest groups participate in shaping the electricity sector depends on the governance structure under which reforms are carried out (*Figure 2*). An examination of the process and politics of electricity sector reform in six countries—Argentina, Bulgaria, Ghana, India, Indonesia, and South Africa—sheds light on how the process of reform can support or hinder sustainable development outcomes.

Electricity Sector Reform and a Sustainable Development Agenda

The electricity sector has long been an integral part of the engine of economic growth and a central component of sustainable development. Yet more than half (56 percent) of the world’s rural

population does not have access to electricity (World Energy Assessment 2000:374). In many African countries, only 5 to 20 percent of the population has access to electricity, with much of this access restricted

to urban populations (Bhagavan 1999). Besides its role in economic development, the electricity sector is responsible for a substantial share

changes, \$187 billion was invested in energy and electricity projects in developing countries and the economies in transition in Central

address these social and environmental concerns could undermine progress toward sustainable development.

Different Approaches to Reform

Figure 1: Countries Taking Key Reform Steps in the Power Subsector, 1998 (Sample of 115)

Corporatize	Law	Establish Regulator	Independent Power Producers	Restructure	Privatize Generation	Privatize Distribution
51 (44%)	38 (33%)	33 (29%)	46 (40%)	40 (35%)	24 (21%)	21 (18%)

Source: Bacon, Robert. 1999. *Global Energy Sector Reform in Developing Countries: A Scorecard*. Report 219/99. Washington D.C.: ESMAP

of local air pollution as well as 38 percent of worldwide emissions of carbon dioxide, a contributor to global climate change (Dubash 2002:1).

With the exception of South Africa, the case studies mentioned above reveal little commitment to promoting sustainable development through electricity sector reforms. Instead, electricity reforms have been driven to a very large degree by economic and financial concerns, and have been designed and implemented via closed-door decision-making processes in which sustainable development concerns were unrepresented. In the absence of adequate attention to issues of public interest at stake in these reforms, socially and environmentally undesirable trajectories can be locked in through technological, institutional, and financial decisions that restrict future choices.

The case of Argentina is telling. Against a backdrop of economic crisis in the late 1980s, a small group of politically powerful bureaucrats—supported by international agencies such as the World Bank—designed reforms with little outside debate or input.

While these reforms did lead to improved quality of service in urban areas, they also undermined incentives to increase the efficiency of electrical appliances and equipment, limited expansion of electricity service to isolated rural areas, and placed a disproportionate burden of electricity price increases on low-income consumers. (A second generation of reforms in the late 1990s attempted to address these deficiencies.)

Patterns and Trends Across the Six Case Studies

A comparison of the six case studies suggests several common themes.

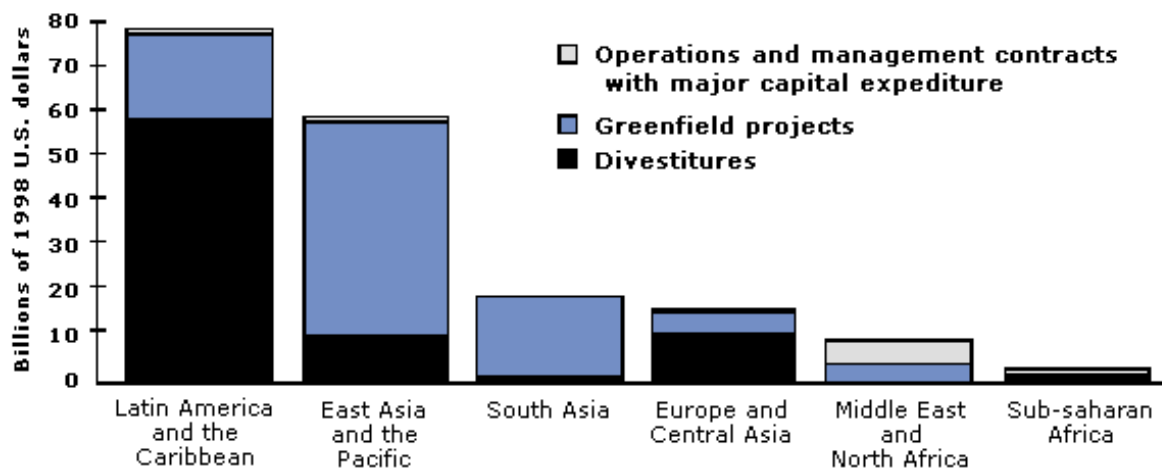
- Electricity sector reforms in several countries (Argentina, Bulgaria, Ghana, India, and Indonesia) were undertaken either in an atmosphere of economic crisis or as a condition imposed by donor agencies. Consequently, the design of the reforms was often driven by an urgent

need to attract investment capital, and the focus on financial issues has crowded out attention to other important issues, such as social and environmental impacts.

- By and large, reforms were designed by government bureaucrats in the energy and finance ministries, with little evidence of involvement in the design of reforms by other key ministries, including environment and rural development. An exception was South Africa, which featured a more open process of designing reforms, greater engagement by a range of relevant government ministries, and more participation by outside experts.
- Donor agencies such as the World Bank have been central to cutting through domestic political morass to initiate reforms. However, in some cases, a continued heavy hand in steering reforms undermined developing-country ownership, with negative consequences for sustainability. At the same time, donor agencies have often taken the lead in

Institutional Reforms Around the World

Figure 2: Trends in Investment in Energy Projects with Private Participation in Developing Countries, 1990-99



Source: World Bank, PPI Database, reproduced with permission from Energy Sector Management Assistance Program (2000).

preparing studies on the environmental impacts of restructuring (e.g., World Bank studies in Bulgaria) and in projects related to the environmental dimensions of electricity reform (the Danish government's promotion of renewable energy in Ghana).

- In several countries, the shift to a decentralized, market-oriented approach has contributed to the absence of a broad vision for the electricity sector. In India and Indonesia, independent power producers locked those countries into large generation plants, undermining energy efficiency efforts and committing utilities to buy electricity at uncompetitive prices. In Bulgaria, a vision for the future was initially based on an unworkable export strategy. In India and Ghana, the process of institutional reform was not coordinated with ongoing (and ineffective) rural electrification programs.

Toward A Progressive Politics of Electricity Sector Reform

Integrating environmental and social benefits into electricity sector reforms in developing countries and economies in transition will continue to be a daunting challenge. However, these country studies offer insights into how reforms are currently shaped and how attention to concerns of social equity and environmental sustainability can be reinserted into the reform process.

The process by which goals are defined and decisions made must change to embrace a more open, consensus-driven design of electricity sector reform. Environmental and social goals to be achieved in the electricity sector must be integrated in the framework of reform from the very start, rather than grafted on to it at a later stage. Finance must be

structured around reform goals rather than vice versa. While this may seem to be a far-fetched notion in capital-constrained developing countries, lowered risks of popular unrest may persuade sources of private capital to accept more realistic financial returns.

Another imperative is to embed public debate over electricity sector reforms in a system of sound governance, featuring transparent, open, participatory decision-making processes. Reforms that exclude voices that deserve to be heard have not proven to be sustainable—financially, socially, or environmentally. Reforms that are supported by a robust process of discussion and debate are much more likely to produce the social consensus needed to consolidate a better, more sustainable electricity future.

BOX 1**Recommendations for Integrating Equity and Environment in Electricity Sector Reform**

Integrating environmental and social benefits into electricity sector reforms in developing and transition economies will continue to be a daunting challenge. Not only are reforms technically complex, but the combination of macroeconomic crisis, entrenched political interests, and centrality of costs often crowd out attention to environmental and social factors. However, the country studies do offer insights into how reforms are currently shaped, and therefore into how attention to concerns of equity and sustainability can be reinserted into the reform process.

1. Frame reforms around the goals to be achieved in the sector. A narrow focus on institutional restructuring driven by financial concerns is too restrictive to accommodate a public benefits agenda. To build a framework that includes such an agenda requires an articulation of the services that a reformed sector is intended to provide and the means by which it should do so. While donor agencies often play a central role in initiating reform, they must step back during the process of defining goals to allow a nationally-driven vision of reform to emerge.

2. Structure finance around reform goals, rather than reform goals around finance. Reform processes have catered to a need to attract private capital. Since sustainable development may not always be aligned with short-term profit motives, reform processes must move beyond the imperative of attracting capital. While this may seem a far-fetched notion in capital-constrained developing countries, the time may now be opportune to change the terms on which private capital enters a country. Efforts to attract capital through risk mitigation and tariff increases have not won popular backing, and as a result have not been politically sustainable. A broader vision of reform and a public consensus supporting that vision could lower these risks. Private capital may be willing to accept more realistic financial returns, if they are combined with less risk. Political legitimacy in a reform program, tied to some innovation in mechanisms for raising finance, may be a more promising route than tailoring reforms to short-term profit horizons.

3. Support reform processes with a system of sound governance. An open-ended framing of reforms will reflect public concerns only if it is supported by a robust process of debate and discussion. Hence, a third imperative is to embed debate over electricity sector reforms in a sound process of decisionmaking guided by transparency, openness, and participation. Such an approach is more likely to provide the political space for articulation of a range of public concerns than have the closed processes prevalent thus far. It is also more likely to build public consensus in support of reforms, making for a more politically sustainable process.

4. Build political strategies to support attention to a public benefits agenda. It is important that public benefits advocates strengthen political coalitions supporting sustainable development and counter those favoring parochial interests. In particular, the case studies suggest that social concerns carry far more political weight in a national context than do either local or international environmental issues. Efforts to exploit links between social and environmental agendas would likely be a useful political approach.

By focusing on financial health, reforms in the electricity sector have excluded a range of broader concerns also relevant to the public interest. In this study, we have examined the social and environmental concerns at stake in these reforms. We have found that not only are they inadequately addressed, but that socially and environmentally undesirable trajectories can be locked-in through technological, institutional, and financial decisions that constrain future choices. Consequently, social and environmental benefits need to be internalized early in reform decisionmaking. To do so, the process by which reform goals are defined and reform decisionmaking must change to embrace a more consensus-driven design of reforms. More complex processes bring with them greater risks of capture by special interests and failure due to a cacophony of voices. Yet exclusive reforms of the electricity sector have not incorporated the breadth of interests that deserve a voice and have not yet shown themselves to be sustainable—financially, socially, or environmentally. This study has suggested several reasons to believe that a modified approach guided by a vision of a socially and environmentally sustainable electricity future may yield more satisfying outcomes.

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