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Infrastructure Planning and Development: Environmental and Social Considerations of Sectoral Reform

USAID and other donors support infrastructure development as a means of stimulating economic growth, improving essential services for urban and rural populations, alleviating poverty, and increasing international competitiveness. Many developing and transitional economies are implementing far-reaching infrastructure reforms such as restructuring, privatizing, and establishing new approaches to regulation. Ensuring sound environmental policies and improving institutional governance minimizes environmental consequences and optimizes resource efficiency and sustainability, and should be incorporated into infrastructure development and reform.

How Environmental Policies Affect Infrastructure Planning and Development

- *Environmental assessments during infrastructure planning reveal the direct and indirect impacts of alternative development scenarios.* When applied early in the planning process, Environmental Impact Assessments (EIAs) can reveal public opposition, analyze the positive and negative impacts of alternative technologies and development strategies, as well as identify mitigating measures for negative environmental and social impacts.
- *Demand-side management results in greater overall efficiency in resource utilization and reduced environmental impacts.* Demand-side management is a cost-effective means of meeting or complementing new capacity requirements. The analysis of end use conservation and efficiency improvements is often driven by environmental policies.
- *Minimizing the environmental consequences of infrastructure requires on-going monitoring activities.* The construction and operation phases of infrastructure development can result in significant, and sometimes unanticipated, environmental consequences. For this reason, environmental policies should require regular monitoring of changes in baseline environmental quality (air, water, soils), and effectiveness of pollution control technologies prior to release into the environment.
- *Effective pricing of infrastructure services ensures efficient use of resources and proper maintenance of facilities.* Subsidized prices for energy and water result in overuse of resources. If system revenues do not cover operating and maintenance costs, then adequate funds are not reinvested and the system performance suffers. The environmental implications of poor system performance are reduced quality of service and ineffective controls of emissions and effluent.
- *Environmental policies and governance must extend to public sector and private sector infrastructure organizations.* These organizations operate outside the enforcement regime of environmental agencies. Infrastructure organizations need to have internal environmental policies and institutional capacity to incorporate environmental management into the siting, design, construction and operation of infrastructure facilities.

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.