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Resources, Services and Risks

How Can Data Observatories Bridge The Science-Policy Divide in Environmental Governance?

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Preface

Data, its generation, collection, sharing and analysis, and its power to influence decision making and support-coordinated action in support of policy goals are what drives the functionality of the Nexus Observatory. The potential applicability of the Nexus Observatory as a tool for agenda setting and monitoring progress in sustainable management of environmental resources provided the rationale for establishing the Africa Consortium on Drought Risk Monitoring. Through a focus on risk, it was possible to convince relevant ministries, nongovernmental organizations (NGOs), and donor agencies of the need to address issues of infrastructure operation and maintenance to support the delivery of critical public services such as water supply and irrigation. By collaborating with European universities, it also becomes possible to combine in situ data collection by regional partners with the power of remote sensing and earth observations to enable data analytics employing multiple mediums including mobile and GIS. In addition to supporting the development of robust feedback loops between science and policy, we hope such an endeavor will also identify opportunities for strategic engagement with the policy process based on analysis of cases of "success" and "failure" in international development.

UNU-FLORES, in its role as a think tank of the United Nations system, recently established the Nexus Observatory initiative to inform discussions on feedback loops and knowledge translation. The Nexus Observatory is an online platform that hosts *inter alia* databases, an online learning portal and dedicated data sets that rely on a consortium comprising UN agencies, member states, and regional universities and training institutes. The Nexus Observatory consortia demonstrate that feedback loops are important in highlighting the relationship between individual behavior, resource allocation by public agencies, and environmental outcomes. The scientific robustness of the initiative can be gauged by the extent to which regional consortia can calibrate their response to the impact of global changes such as urbanization, climate, and demography while accommodating for trends such as decentralization and the emergence of information and communication technologies (ICTs) that have had a discernible impact on governance structures and processes.

This volume provides the theoretical basis for pursuing the idea of a Web-based observatory that addresses the science-policy divide in environmental governance. We posit that the absence of disaggregate, reliable, and frequent information at appropriate scales makes it difficult to predict the environmental outcomes of infrastructure construction. Moreover, the absence of regional capacity to collect, analyze, and transmit information to decision makers curtails the ability of governments to respond to disaster risks effectively. As a consequence, the possibility of establishing a robust system for monitoring international development goals (e.g., sustainable development goals) is curtailed.

We have organized the volume into four chapters that demonstrate the need for a perspective that treats environmental resources, the services they support, and the risks that disasters pose to effective delivery of services in a holistic manner. This would enable us to reflect critically upon the strength of the poverty–environment nexus while guiding us with the design of programs and projects focused on addressing the challenges of environmental sustainability. In constructing our argument, we draw upon five cases from Philippines, India, Laos, and Honduras to elaborate upon five divides that characterize environmental governance today: (1) infrastructure versus services, (2) centralized versus decentralized government, (3) public versus private management models, (4) short-term versus reliance on long-term planning perspectives, and (5) efficiency versus equity. The cases we draw upon cover water, soil, and waste resources; services; and associated disaster risks.

Mathew Kurian

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