Using adaptive co-management principles to stimulate development: Preliminary findings from the GLEAN project (A Global Survey of Learning, Participation and Ecosystem Management) at the Stockholm Resilience Centre

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Abstract

Theories of adaptive co-management – emphasizing stakeholder participation and a learning-based approach to ecosystem management – represent a promising tool for development practitioners seeking a participatory and capacity-building approach to natural resource management. The principles of adaptive co-management are based on strong but, however, mostly untested assumptions. GLEAN (A Global Survey of Learning, Participation and Ecosystem Management) is a five-year interdisciplinary research project which seeks to put these assumptions to the test in a multi-tiered and multi-method research design. Using the UN-ESCO World Network of Biosphere Reserves (WNBR) as units of study, GLEAN asks three interlinked research questions: (1) Does stakeholder participation lead to better management of ecosystems? (2) Does stakeholder participation lead to processes of learning among stakeholders about ecosystems? (3) What types of learning processes are effective for improving management of ecosystems? A combination of large-N survey, medium-N comparative study, and small-N case studies will provide a diverse range of qualitative and quantitative data across 55 countries. Furthermore, the variety of developmental contexts will enable a range of conclusions to be made about the efficacy of adaptive co-management for enhancing and unlocking development. This paper will present preliminary findings from five in-depth case studies conducted throughout 2012 and 2013, including cases from Southern Africa, Southern Europe and Australia. Of critical interest will be how practitioners are using adaptive co-management principles to fulfill the WNBR mission of integrating biodiversity conservation with economic development and on-going learning amongst participants. For instance, in the Kruger to Canyons Biosphere Region (South Africa), a wildlife monitoring scheme seeks to train communities in scientific data collection methods – creating jobs and opportunities while also providing the knowledge-base essential for effective conservation. At the same time, Kruger to Canyons is facilitating a process where traditional healers from the town of Bushbuckridge (declared a Presidential poverty node by the South African government) are negotiating with game rangers to gain access to medicinal plants within the Kruger National Park. This process is designed to support traditional livelihoods, contribute to conservation (e.g. by training healers to monitor rare species), while also stimulating knowledge exchange.
and learning between participants. In all five cases, barriers and bridges of ACM for development will be examined – including the critical issues of knowledge politics (combining scientific and traditional knowledge), power relations (facilitating equal collaboration between participants with very different capacities), and trade-offs between development and conservation. Using these in-depth case studies to feed into a global survey of 146 Biosphere Reserves in 55 countries, GLEAN is well-placed to build integrative theories about adaptive co-management which should prove invaluable to development practitioners working to help manage natural resources.

**Keywords:** Adaptive (co), management, Community engagement, Conservation, Cross, scale, Development, Learning, Livelihood, Local knowledge, Participation, Protected area, Sustainable development