



Dictating participation? Rethinking the adaptive co-management of socio-ecological systems in West Africa

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In the face of environmental change, enhancing adaptive capacity relies on stakeholder engagement. But the participatory process, while critical to the translation, transfer, and application of scientific knowledge to society, is not without its own contradictions. These include the asymmetrical relations of power that prevail between environmental scientists, managers, and local users; discrepant understandings of knowledge and its appropriate uses; and conflicting social, economic, and ecological values, to name only a few. Our research examines five major transboundary river basin organizations in West Africa and their efforts to improve adaptive basin management via stakeholder collaboration. In particular, we evaluate the participatory strategies of these organizations to measure non-linear, multi-directional feedbacks between the social and biophysical factors of land use/land cover change, as well as the impacts of this change on basins and their dependent populations. Our research suggests that oftentimes, these methods paradoxically produce a hierarchical and marginalizing effect on local stakeholders in relation to the scientists that study them. In seeking to address these limitations, we assess the potential costs and benefits of integrating select components of a Participatory Action Research (PAR) framework (see, for example, Reason & Bradbury-Huang, 2007) into studies of complex socio-ecological problems. This approach, used widely in the social sciences, promotes critical reflection on and minimization of the power inequities inherent in science-society collaborations. It instead favors more horizontal forms of knowledge co-production that support and foster the expansion of local, existing movements for social and environmental justice. A PAR framework may therefore improve the efficiency, sustainability, and equitability of land-based adaptation to environmental change; further research is thus recommended to test this hypothesis.

References: Reason, P. & Bradbury-Huang, H. (2007). *Handbook of Action Research: Participative Inquiry and Practice*, London, Sage.