Using scenarios to support resilient community-based natural resource management

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Introduction

COMET-LA (COmmunity-based Management of EnvironmenTal challenges in Latin America) (2011-2014) aims to identify community-based governance models for the management of natural resources that could be used in different socio-ecological systems in the context of climate change and increasing competition over resources.

Key to the project is a learning arena between civil society and scientists: the ethos of the project is very much about working with and for communities to co-construct understandings of local natural resource management, likely future challenges and potential responses. This project works with partners in sites across three countries: Colombia, Mexico and Argentina.

Case studies

MEXICO: The indigenous community of Santiago Comaltepec -Oaxaca collectively own 19,000 ha of forest based resources using a unique governance system consisting of a general assembly and 'usos y costumbres'. The community faces issues of depopulation and rural poverty.

COLOMBIA: The Community Councils of the Upper and Middle Dagua, and the Lower Rio Calima are being empowered to deal with conflicts related to the access to and use of natural resources, such as: access (e.g. illegal timber extraction, mining and hunting), overexploitation (particularly forest and fisheries), infrastructure development affecting ecosystems and local communities, access to and forms of use of water, presence of illicit crops and illegal armed groups.

ARGENTINA: The estuary of Bahia Blanca faces potential damage by urban and port development, affecting the fishing and recreational use. The objective is to develop an integrated coastal management program with the active participation of users.

Stakeholder workshops in Mexico, Colombia and Argentina. Summer 2012

References
Carter, T. R., Jones, R. N., Lu, X., Bhadwal, S., Conde, C., Mearns, L. O., et al. (2007). New assessment methods and the characterisation of future conditions. In M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden & C. E. Hanson (Eds.), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 133-137). Cambridge, UK: Cambridge University Press; Godet, M. (1994). *From Anticipation to Action: A Handbook of Strategic Prospective*. United Nations Educational, Paris; Godet, M. (2001). *Creating futures. Scenario planning as a strategic management tool*. Economica, London; Millennium Project (2010). Future Studies around the World, 7.1 Latin America 2030. In J. C. Glenn, T. J. Gordon, & E. Florescu (Eds.), *The Millennium Project: 2010 State of the Future*. Washington, DC.

Methods and plan of work

Our contribution to COMET-LA is exploring if and how scenarios of future change can provide a shared and reflexive space of knowledge and debate to enable creative solutions to acute problems in times of potential future crisis. Scenarios are but one part of a range of methods or ways of characterising the future, see Carter et al., 2007. In COMET-LA we will analyse future scenarios using Prospective Structural Analysis (PSA) (Godet, 1994, 2001), this method can help describe any system by identifying its most important influence relationships (instead of just focussing on cause-effect relations). The PSA is done iteratively throughout the course of the project.

- The project members will evaluate and adopt the most suitable scenario development methodologies for working with communities. These will include researchers, Civil Society Organisations (CSOs) and local community representatives.
- The scenarios will adapt existing global storylines of change (e.g. Millennium Project, 2010) and supplement them with variables identified via the PSA's Characterization and Structural Analysis undertaken in each of the case studies. These storylines will focus on plausible drivers most likely to generate the greatest environmental challenges in each of the case studies. This will help these local communities to identify locally-owned solutions to future resource management challenges.
- COMET-LA will contribute to the literature on community-based natural resource management (CBNRM): we acknowledge that although there are no 'silver bullet' solutions our experiences can provide some insights into useful strategies for resource governance and management.
- These narratives will be used to explore how local communities-based management systems might respond to future shocks.