Research Spotlight: Lessons Learned on MPAs, Conservation, and Customary Sea Tenure in the Western Solomon Islands

Shankar Aswani has spent more than a dozen years researching marine ecosystems and coastal communities in the Solomon Islands in the southwestern Pacific. An anthropologist at the University of California at Santa Barbara (US), Aswani is now leading a project to establish a network of community-based MPAs and seasonal no-take zones in the Solomons, to be managed under customary sea tenure in the nation's Western Province. More than 25 MPAs have been designated so far as part of the project, mostly in two lagoons (Roviana and Vonavona). Site selection has been based on a combination of marine and social science and traditional ecological knowledge. In addition to the goal of conservation, the project is working to empower rural communities by establishing long-term business enterprises and infrastructural initiatives such as clinics and schools. The project is funded by Conservation International, the David and Lucile Packard Foundation, the National Science Foundation, the John D. and Catherine T. MacArthur Foundation, and the Pew Charitable Trusts.

Consistent with the lead article in this edition of MPA News, the project's approach is one of ecosystem-based management, says Aswani, given the integration of a number of social and biological parameters at various temporal and spatial scales. It builds on his previous research on the ecological, economic, political, and socio-cultural processes that pattern the region.

In light of Aswani's experience with MPAs in the Solomon Islands, MPA News asked him what advice he could draw from it. His answer below is an expansion of remarks from his 2004 paper "The value of many small vs. few large marine protected areas in the Western Solomon Islands", co-authored with Richard Hamilton of the University of Otago (New Zealand), and available at http://www.anth.ucsb.edu/faculty/aswani/articles/traditional_bull.pdf.

MPA News: In your research, what lessons have you learned that are most important to your current project to create and consolidate an MPA network in the Western Solomon Islands?

Shankar Aswani: In general, we have learned a number of lessons:

Lesson 1. In the Western Solomons (and for Melanesia in general), fishery scientists and coastal managers will rarely achieve ecological sustainability and the protection of marine biodiversity unless they seriously consider local forms of sea tenure and their adaptability to introduced management regimes. Our social impact assessment surveys indicate that between 70% and 90% of Roviana and Vonavona lagoon inhabitants approve of the MPA initiatives. Their confidence in the program derives partly from the fact that it includes customary authority and practices. That is, it represents an extension and revitalization of traditional sea tenure practices in ways that the people can relate to and articulate in the local cultural idiom. Indeed, we can raise a number of issues concerning the integration of sea tenure institutions into fisheries co-management policies. These include issues regarding the differences between Western and indigenous forms of knowledge and questions of equity, empowerment, jurisprudence, and conflict resolution among local, state, and international players. However, the absence of any binding and enforceable legislative or regulatory tools in the Solomon Islands necessitates the use of sea tenure as a framework for establishing any form of fisheries regulations.

Note that not all customary sea tenure systems work. In the Roviana region, various historical processes have produced different marine territorial arrangements, and some communities can better manage their marine resources than others. Understanding asymmetries in territorial strategies, therefore, has been important in our selection of MPA sites. It would be pointless to implement a no-take marine reserve in a village - no matter how rich in marine biodiversity - if harvest restriction rules could not be enforced efficiently there.

Lesson 2. It is unrealistic to expect a community-based conservation project to succeed with only short-term expert guidance and financial support. Solomon Islanders have developmental aspirations that cannot be ignored. Hence, if local communities are to forfeit exploiting their resources, some form of alternative livelihood has to be furnished. While we provide infrastructural assistance to various communities (e.g., clinics and schools) and they contribute free labor and local materials, we believe that continued environmental education is vital if we are to move beyond the capital dependency created by financial incentives as components of conservation projects. There is an issue here of importance. The goodwill generated by small development projects creates social capital that cannot be accrucd through other means. Communities in the Solomons that have had logging and have seen few public benefits from such operations are beginning to realize that conservation programs can do what capital extraction initiatives have not. While this may not be the best conceptual start in terms of people's attitudes towards marine conservation, it is the right framework to foster socially a conservation ethic among participants, and to have the MPAs readily accepted. Note that "fly-by" approaches, in which short-term development programs are offered in return for MPAs, do not work in this region. Long-term presence is necessary if development is to be used as an incentive for conservation.

Lesson 3. Outside project leaders and funding agencies have to be prepared to accept that local interest in marine resource management may wax and wane over time, particularly in places like Melanesia. For instance, local peoples may have diverse conceptions of a marine protected area's time horizon, and stakeholders' commitment to protecting a site indefinitely may vary widely. Therefore, MPAs have to be flexible enough to accommodate this attitudinal dynamism. In the Roviana case, for instance, the local resource management committees have determined that opening and closing of parts of their MPAs should follow the ritual cycles of the village (e.g., opening the shell beds for a mortuary feast) rather than relying on biological data (e.g., spawning periodicity of various mollusk species) for determining the management regime. This kind of adaptiveness is seldom found in MPAs designed by science-driven programs implemented by national agencies, which tend to be more inflexible managerially and statutorily.

Lesson 4. The marine protected areas and their resulting biological outcomes are tangible means of demonstrating the significance of resource management. The witnessing of actual management results, whether real or perceived, is the most effective means of environmental education - i.e., "seeing is believing." Concurrently, the results of scientific monitoring become of critical importance. Scientific results can be a catalyst for reinforcing the local perception that the MPAs are having positive biological results.

Lesson 5. The participation of local church leaders is of paramount importance. The sanction of our project by the head of the Christian Fellowship Church, whose members hold customary control over huge areas of the Western Solomons, will help to ensure the long-term sustainability of the conservation and development initiatives.

Lesson 6. It is possible for MPAs to meet their social and biological goals. From the perspective of the social sciences, however, we need to move beyond programmatic statements (e.g., promoting the value of social science for MPA design) and overemphasizing social critique (e.g., deconstructing colonial histories and analyzing NGO discourses and intentions) and take leadership roles by designing stakeholder-driven programs in partnership with natural scientists. These programs should consider not only key biological and ecological parameters but also the characteristics and behaviors of all the stakeholders involved, the desires of different stakeholders, and the stakeholders' knowledge. Only then will we completely realize the true value of social science research in MPA design and implementation. Stated another way, skeptical natural scientists need to "see" theoretically and methodologically informed applied social science in action.

For more information:
Shankar Aswani, Department of Anthropology and Interdepartmental Graduate Program in Marine Science, University of California, Santa Barbara, CA 93106, USA. Tel: +1 805 893 5285; E-mail: aswani@anth.ucsb.edu; Web: www.anth.ucsb.edu/faculty/aswani