

The Bunaken National Marine Park Co-Management Initiative

Mark V Erdmann¹, Peter R Merrill¹, Meity Mongdong¹, Maxi Wowiling², Roy Pangalila¹
and Idham Arsyad¹

¹USAID's Natural Resources Management Program, Indonesia

²Bunaken National Park Management Advisory Board (presenting author)

Abstract

Bunaken National Park in Indonesia is a medium-sized (89,000 hectare), developing country MPA that has suffered a history of insufficient stakeholder involvement, leading to frequent conflicts and ineffectual park management. Since 1998, USAID's Natural Resources Management Program (NRM) has been working actively to implement a co-management initiative in the park and instill a sense of pride and ownership in the primary park stakeholders. The following executive summary outlines the primary components of the Bunaken co-management initiative and presents select achievements to date. Moreover, it lists a number of important lessons learned over the course of the co-management initiative that may prove useful to other MPA managers currently utilizing or considering a co-management approach.

Background on Bunaken National Park

Bunaken National Park (BNP) in North Sulawesi was formally established as a marine national park in October, 1991, and has since become one of Indonesia's most well-known marine ecotourism destinations. The park encompasses 89,056 hectares of land and sea area, divided into a southern mainland section (the Arakan-Wowontulap coast, set aside primarily for its old-growth mangrove forests and dugong population) and a northern island and mainland section (with five islands famous for their dramatic drop-off fringing coral reefs). Co-located within the park are 22 villages with over 30,000 inhabitants, most of whom make their living from a combination of fishing and farming.

Since 1998, USAID's Natural Resources Management Program (NRM) has been working actively to implement a co-management initiative in the park. Prior to this initiative, the management of BNP was centralistic and legally under the authority of the Ministry of Forestry's Bunaken National Park Office (BTNB). Local park users (particularly the fisherfolk and the dive tourism industry) were not effectively involved in park management, and local government agencies were highly resentful of the management authority vested in the BTNB. Funding for conservation and management activities in the park was minimal, the enforcement system ineffectual, and the park zonation system was largely misunderstood and ignored by the local populace. In most respects, Bunaken National Park qualified as a "paper park".

Objective of Initiative

The goal of the Bunaken National Park co-management initiative is to develop an effective and sustainably-financed Indonesian model of multistakeholder co-management of a national marine park which will thereby serve as a marine protected area (MPA) center of excellence for Indonesia and SE Asia. The key to achieving this goal has been a massive socialization effort to draw the various stakeholders from the park (including 30,000 villagers, an active marine tourism industry, local conservation NGO's, academia, and three tiers of government agencies) into a single "community" with a strong sense of awareness and ownership of the valuable but threatened marine resources in the park.

Components of the Co-Management Initiative

- **Participatory zonation revision of BNP.** NRM is assisting the BNP Office (BTNB) to work with the two primary park user groups (local villagers and the marine tourism sector) to revise the

park's zonation system, realizing that a well-designed, easy to understand and thoroughly socialized zonation system is the foundation for effective management of the park.

- **Improved villager involvement in BNP management decisions through institutional development of the BNP Concerned Citizen's Forum (FMPTNB).** The FMPTNB is now active in all 22 villages in BNP and serves to represent the aspirations of ~30,000 villagers in management decisions, as well as serving to socialize management policy to its constituents.
- **Fostering private sector involvement in BNP management.** NRM provides technical assistance to the North Sulawesi Watersports Association (NSWA) and actively fosters the involvement of other private sector groups (cottage owners, traditional fishers' association, and charter boat operators) in BNP management.
- **Facilitation of multistakeholder co-management of BNP via institutional development of the BNP Management Advisory Board (DPTNB).** NRM provides development support to the executive secretariat of the DPTNB, which consists of representatives from national, provincial and local government agencies, village stakeholders, the private tourism sector, academia, and environmental NGO's. The "crown jewel" of the Bunaken co-management initiative, the DPTNB represents a drastic departure from the traditional Indonesian model of top-down management of MPAs, and strives to make decentralized, participatory, transparent and accountable MPA management a reality.
- **Development of a portfolio of sustainable conservation financing mechanisms for BNP.** A ground-breaking decentralized park entrance fee system has now placed the DPTNB on the road to financial self-reliance. Other components in the developing financing portfolio include an international volunteers system to lower management costs, diversified government agency support, in-kind support from the local dive tourism sector, national and international grant support, visitor center merchandising and a possible endowment fund.
- **Development of an effective 24-hour patrol system for BNP.** An experimental joint patrol system involving park rangers, water police officers and local villagers has proven highly effective in decreasing destructive fishing practices in the park.
- **Institutionalization of a scientific monitoring program to monitor effects of management activities on park resources.** In conjunction with WWF Wallacea, NRM is supporting park stakeholders in monitoring coral condition (using manta tows and line intercept transects) and reef fish stocks (visual census of select reef species and monitoring of grouper and Napoleon wrasse spawning aggregation sites).

Select Accomplishments to Date

- Participatory zonation revision completed for Bunaken, Manado Tua, Mantehage and Siladen Islands and ongoing in 14 remaining villages.
- Institutionalization of the 15 seat multistakeholder BNP Management Board (DPTNB) and the 22 village BNP Concerned Citizen's Forum (FMPTNB) and widespread socialization of these two institutions.
- Strong participation of private sector in management via the NSWA, which has instituted a program of "3 E's" (employment, education and enforcement) within the park
- Development of a decentralized park entrance fee system whereby 80% of the revenues are earmarked for BNP management programs. The system succeeded in raising US\$42,000 in its first year of operation (2001) and US\$109,000 in 2002, and is eventually targeting up to US\$250,000/year.
- Implementation of a joint patrol system that includes villagers and that has virtually eradicated blast and cyanide fishing from the park and greatly limited illegal coral mining and mangrove cutting.
- Multimedia park socialization campaign to instill a sense of BNP community using posters, zonation calendars, townhall meetings, community information billboards, a 30 base station VHF community radio network, local television shows and local, national and international newspaper and magazine articles.

- Sharing of lessons learned from Bunaken with MPA managers from Bali Barat NP, Komodo NP, Wakatobi NP, Cenderawasih NP, Berau Islands and Tomini Bay in Indonesia and Hon Mun Marine Reserve in Vietnam.
- Recorded an 11% increase in live coral cover in a one and a half year period on the reefs which have already completed zonation revision and are protected by patrol system
- Selection as the Asian MPA ecotourism demonstration site for the International Coral Reef Action Network (ICRAN).

Selected Lessons Learned

Over the past five years, a number of important lessons have been learned in attempts to strengthen decentralized co-management of Bunaken National Park. While it is beyond the scope of this executive summary to discuss these in detail, we list the most important of these lessons learned in the hopes that they may be of interest to other tropical MPA managers currently utilizing or considering a co-management approach:

- **It is necessary to balance ecological values with socio-economic values to generate essential stakeholder political support for conservation** of protected areas in regions with population pressures and/or priorities on economic growth and development.
- **Building informed participation is a long-term process, requiring extensive capacity building and facilitation.** Villagers, government and non-government stakeholders with long-term involvement in conservation management provide more innovative solutions and productive support for conservation management.
- **Park managers and the rangers tasked with field management of the park commonly lack the community facilitation skills critical to ensuring broad stakeholder support and understanding of park management objectives.** Training in facilitation skills for these park management personnel is an essential capacity-building measure before co-management can be effectively implemented.
- **Co-management starts with the development of constituency-based partnerships, and then evolves to true co-management when the constituency-based partnerships then start working with each other.** The evolution to co-management results in collaboration among often competing constituencies. Strong constituency partnerships provide a solid foundation for co-management.
- **Community conservation campaigns through schools, mosques and churches can build effective local support for and pride in conservation initiatives.** People will support conservation of their environment if they take pride in it. Of course, pride alone will not achieve conservation. Also important are economic incentives and enforcement of rules and regulations.
- **Decentralization of conservation management works when roles and responsibilities are clear, and when there is a shared vision of goals and objectives.** Decentralization does not work when there is competition over management authority or significant divergence in goals and objectives. Decentralization also stimulates stronger grass-roots democracy and principles of good governance.
- **Co-management requires active involvement of all relevant stakeholders.** This is site-specific in nature. In Bunaken it includes dive operators, communities, different levels of government, universities and NGOs. Co-management must be inclusive, and must provide for reasonably equal voices for relevant stakeholder groups.

- **The composition of multistakeholder co-management boards is absolutely critical to their success.** The optimal ratio of governmental to non-governmental representatives and those advocating different functions of the protected area (economic development, conservation, sustainable resource use) will vary from site to site, but will have profound consequences for the effectiveness of these multistakeholder boards. There must be a balance between the competing interests represented, and this will not always entail equal numerical representation; in many cases the stakeholder group(s) that are the most hesitant to advocate strong positions may require a larger allocation of seats on a multi-stakeholder board to achieve truly equal representation.
- **Community stakeholders support patrol and enforcement programs, as they are directly linked to increased livelihoods.** Many illegal activities within protected areas come from outsiders. Communities with a stake in conservation management or sustainable utilization of park resources have a strong and rational interest in seeing rules and regulations enforced so natural resources are sustained.
- **“Alternative livelihood programs” aimed at stakeholders currently involved in destructive activities in the coastal zone are ineffective and largely rejected by local communities.** Community conservation/improvement programs should focus on rewarding those that have chosen sustainable livelihoods, while those that persevere with destructive activities should be dealt with by a strong enforcement system.
- **Local self-financing mechanisms are key to providing local stakeholders with the fuel to manage local conservation interventions.** Decentralized co-management requires the capacity to generate and then manage finances locally.
- **Development-oriented stakeholders, particularly from government, support conservation when it can be linked to regional economic development.** Conservation of protected areas is better described within the context of regional economic development than altruism.
- **Involvement of the private sector in co-management of MPAs can be highly beneficial.** Once potential business competitors focus upon the benefits of cooperating to protect the resources in the MPA upon which their income depends, they become one of the strongest proponents of good management and bring considerable financial and human resources to the table.
- **Tourists are willing to pay reasonably high entrance fees as long as they see their money is resulting in visible conservation management.** Willingness-to-pay for effective conservation management is high, but can only be sustained when tourists see results from their payments.
- **Funding for conservation management needs to be diverse. Reliance on a single source like user fees is dangerous.** This is demonstrated by the sudden drop-off in revenues from the Bunaken entrance fee system after September 11 and the Bali Bombing. Long-term sustainability requires significant financial diversification.
- **Monitoring and evaluation are key to ensuring on-going success of conservation management interventions.** This is important for convincing stakeholders that interventions are working and/or providing guidance on how to adapt interventions if they are not working well. This includes the use of both ecological as well as socio-economic indicators in an integrated management effectiveness monitoring system

- **Multiple-use MPA zonation plans are valuable management tools for mitigating conflict among stakeholders and balancing effective conservation with sustainable development in developing country MPAs with large population pressures.** These plans are most effective if based upon a combination of scientific/ecological considerations and input from a range of primary user groups who have received facilitation in understanding and accepting compromise.
- **Zonation schemes should use a minimal number of zone types, with names that clearly indicate their purpose, explicit rules for allowed and disallowed activities, and clearly demarcated borders** that utilize natural or otherwise well-known landmarks whenever possible.
- **The use of focal interest group meetings instead of relying only on large village meetings is essential for ensuring broad-based community participation and equitable decision making.** This ensures the involvement of many of the more marginalized or traditionally quiet community members.
- **Representation of larger groups (villages, the private sector, etc) in marine resource management decision-making is a new and poorly-understood concept in Indonesia.** The individuals chosen to represent larger groups often neglect their responsibility to communicate actively with their constituents, while constituent groups often resent those chosen to represent them. This democratic principle needs continuous facilitation.
- **Decentralized co-management supports the principles of good governance.** Although it must be carefully managed (and well-designed at the outset in order to prevent dominance by any one stakeholder group), one of the greatest strengths of the co-management approach is in utilizing the diverse interests and motivations of various stakeholder groups to prevent corruption, collusion or nepotism.
- **Establishment of a sense of pride and ownership of local marine resources is a key step in generating strong support for conservation measures.** Even in the absence of traditional or legal marine tenure systems (where communities directly own resources), ownership of the *management* of those resources engenders strong conservation support.
- **Human resource development and institutional strengthening is best achieved through long-term, learning-by-doing mentoring processes rather than short-term, highly specific technical training programs.** Technical training can meet specific needs, but broad-based capacity building for conservation is best achieved through long-term, medium-input mentoring.

More information on the Bunaken National Park co-management initiative can be found at www.bunaken.or.id and www.bunaken.info.