

## Charting A New Course for Co-Management of Bunaken National Park

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### I. Name of Site

Bunaken National Park (BNP) encompasses 89,056 hectares of land and sea area, divided into a southern mainland section (the Arakan-Wowontulap coast, protected primarily for its old-growth mangrove forests and dugong population) and a northern island section (including five islands with its fringing coral reefs and a mainland section).

Figure 1. Location of Bunaken National Park.



### II. History and Objectives

In 1980, the coastal area of Bunaken was declared as a Manado Marine Park Tourism Destination with North Sulawesi Governor Decree No.224. In 1984, this tourism destination was expanded to include the area of Arakan-Wawontulap (Governor Decree No.201 / 1984). The management of the park at that time was under the provincial Government (Provincial Tourism Agency).

In 1986, with Forestry Ministerial Decree No.328/Kpts-II/1986, the status of this area was changed into two Marine Nature Reserves: 1) Bunaken Manado-Tua Marine Nature Reserve (75,265 Ha), and 2) Arakan-Wawontulap Marine Nature Reserve (13,800 Ha).

Then, in 1991, with Ministerial Decree 730/Kpts-II/1991, these nature reserves had a new status and function as Bunaken National Park (BNP). The objectives of the establishment of Bunaken National Park are:

1. Conservation of marine biodiversity;
2. Supporting the livelihood of about 30,000 villagers inside and on the boundaries of the Park; and
3. Development of marine ecotourism within the park.

The total area of the park is 89,065 hectares including 5 islands (Bunaken, Manado Tua, Siladen, Mantehage, Nain), northern mainland (Molas, Meras, Tongkeina, Tiwoho), and southern mainland (Arakan-Wawontulap area from Poopoh to Popareng). There are 22 villages located in these five islands and on the mainland with ~30,000 inhabitants, mostly farmers and fishers.

BNP has become a famous marine park in Indonesia and a primary tourist destination in the province of North Sulawesi. There are about 25 land-based dive operators operating daytrips to the Park, and a wide range of accommodation from 5 stars resorts to rustic backpacker cottages have been developed. Approximately 25,000 guests/year visit BNP, supported by direct international airline access.

### **III. Management Authority**

The responsibility for the management of national parks in Indonesia is with the central government (PHKA or General Directorate of Nature Conservation). In the case of BNP, the management authority of the park is carried out by Bunaken National Park Office (BNPO).

After the establishment of Bunaken National Park, the park was threatened by certain “damaging” activities. Considering the need for better management of tourism, local planning and facilitating coordination between government institutions and all stakeholders, in 1992 the Governor had made a request to central government (Ministry of Forestry) to have an authority to manage the park.

However, according to legislation (PP No.64/1957, UU No.5/1990, and UU No.41/ 1999) nature reserves and conservation areas in Indonesia, including national parks, still rest with the central government. Nevertheless, some coordination problems with local government agencies that also have authority in the park still exist.

### **IV. Successful Management Schemes**

Since the establishment of the park, it has been realized that there is a need to form a coordination body. In the period of 1991-2000, the effort to form the umbrella organization always stumbled on legislation problems. However, BNPO itself was not able to cope with the whole range of problems and conflict in managing the park. A collaborative management is important between local government agencies (such as Tourism Agency, Fishery Agency, Environmental Agency, City Planning Agency, Water Police), tourism private sectors, non-government organization, University, and local villagers who have been living and using the park resources for hundreds of years.

BNP has suffered a slow but continuous degradation of its marine resources, in large part due to ineffective management and enforcement. Two primary factors behind the management shortcomings have been a problematic zonation system and an increasingly fractious relationship between the park management authority (BNPO) and the local government. Besides this management situation, there has been a vocal call from the private sector (primarily diving tourism operators) for better protection of the park’s reef resources.

Since mid-1998, the Natural Resources Management Program (NRM / EPIQ) has been involved in efforts to strengthen the BNPO and improve the management of BNP. Collaborative management has been adopted as a strategy that includes:

- Participatory zonation revision process;
- Creation of a multistakeholder advisory board;
- Implementation of an innovative entrance fee system for sustainable conservation financing;
- Inclusion of local communities and private sector in management; and
- Joint ranger-villager patrol system.

#### **a. Zonation Revision**

As set forth in the 1990 Biodiversity Conservation Act (UU No. 5/1990), management of Indonesia’s national parks is based upon a zonation system. Under this system, a national park area is divided into various zones (eg, core conservation zone, community use zone, etc), with specific regulations on activities within each zone. The BNP management plan completed in 1996 includes a proposed zonation system that was designed through a participatory process with villagers, dive operators and government officials. Unfortunately, the “official” BNP zonation system (as set forth in the 1997 decree by the Director General of Forest Protection and Nature Conservation decree on BNP zonation) is

different from that proposed in the Management Plan, and does not specifically address what activities are allowed in each of the zones. The result of these two conflicting zonations (and the lack of detailed regulations for each zone) has caused great confusion amongst villagers, rangers and dive operators, as well as a paralyzed enforcement system.

To clarify this situation, BNPO with the assistance of NRM began a participatory zoning revision process. The process is focusing on the two main user groups of the park's resources: villagers and marine tourism private sector, on a village by village basis, island by island basis. It has been targeted that 20% of reef area will be "no-take" zones where no fishing is allowed. A series of community meetings includes open and focal group meetings to discuss villagers' concerns and suggestions on improving the zonation (including demarcation of zone boundaries) and setting regulations on activities to be allowed in each zone. Parallel meetings are also being conducted with North Sulawesi Watersports Association (NSWA), a group of environmentally-concerned marine tourism operators in the area. Results of meetings with each group (NSWA and villagers) are shared with each other, and with local and central government officials.

At the moment, the zonation revision of two islands (Bunaken and Manado Tua) has been completed, and a consensus has been made in another island (Mantehage). The process took time and patience. For instance, the process in Bunaken island required 8 months and 44 meetings. There are 3 primary zones in the revised zonation system: core zone, tourism zone and village use zone, widespread advertising with posters, billboards, etc. The target completion date for zonation revision is by 2004.

#### **b. Multistakeholder Management Advisory Board (DPTNB)**

The management of the Bunaken National Park will no longer rely solely upon the Bunaken National Park Office (BNPO), but will include inputs from all stakeholders. This includes villagers (via the Forum of Concerned Citizens of Bunaken National Park), the private tourism sector, environmental NGO's, academia, and government officials from the city of Manado, district of Minihasa and province of North Sulawesi. The Board has three functions:

- Instill a sense of pride and ownership by local stakeholders in the conservation of BNP.
- Coordination policies of the various government agencies with authority within the park. This is very important to avoid the possibility of conflicting policies and development within the park.
- Support the BNPO in formulating and funding conservation programs within the park. Examples of important priority programs include: conservation education for children in all 21 villages in the park, enforcement and patrols to stop destructive activities such as bomb and cyanide fishing that destroy the future of Bunaken, waste and trash management programs, and development programs aimed at villages within the park – to reward the citizens who protect the reefs.

According to Governor Decree No.233/2000, the DPTNB consists of 15 seats representing all stakeholders in the park as follows:

Chairman : Vice governor of North Sulawesi  
Vice Chairman : President of North Sulawesi Watersports Association  
Secretary : Chairman of Forum of Concerned Citizens of Bunaken  
Members :

- Dean of Faculty of Fisheries and Marine Science, Universitas Sam Ratulangi
- Head of Environmental Impact Assessment Department, North Sulawesi
- Head of Tourism Department, North Sulawesi
- Head of Fisheries Department, North Sulawesi
- Head of Bunaken National Park Management Office (BNPO)
- Head of Environmental Impact Assessment Department, Minihasa District
- Head of Environment Department, Manado City
- Secretary of Forum of Concerned Citizens of Bunaken
- Chairman, Southern District of Forum of Concerned Citizens of Bunaken
- Chairman, Island District of Forum of Concerned Citizens of Bunaken

- Chairman, Northern District of Forum of Concerned Citizens of Bunaken
- Chairman, North Sulawesi Branch of WALHI (the Indonesian Environmental Forum).

The first year priorities of the Board (DPTNB) are:

- Design and implement an effective entrance fee system
- Expand the joint patrol system involving BTNB, North Sulawesi Watersport Association (NSWA)
- Institutional development of DPTNB and secretariat
- Implement trash collection program on Bunaken Island

The five year priorities of DPTNB are:

- Alternative livelihood programs in 22 villages
- Conservation education in 22 villages
- Environmentally-friendly village development programs, such as village docks, sanitation systems, running water
- Alternative ecotourism development, such as dugong watching, mangroves and Manado Tua nature trail.

The activities and conservation programs of the DPTNB will be funded by the new Bunaken National Park entrance fee system, which will contribute 80% of the funds collected directly to the board. It is anticipated that this entrance fee system will cover the normal operating costs of the DPTNB and its conservation programs, while additional funding for conservation will also be obtained from grants from international and domestic donors, e.g. WWF, NRM.

### **c. Bunaken Entrance Fee System**

As mentioned previously, one of the obstacles to the management of BNP has been the antagonistic relationship between the local North Sulawesi government and the central government. One of the most common complaints from local government officials is that North Sulawesi receives no direct benefits from the Park.

As a matter of fact, the central government did not receive direct income from the Park. For the 10 years of its existence, not a single park entrance fee has been collected (resulting in an estimated loss of Rp 450 million to 2.3 billion in uncollected fees) from park visitors. Based upon ground-breaking provincial laws, with agreement of central government (PHKA- Dept. of Nature Conservation) following extensive discussions with government officials, villagers, tourists and dive operators, the Bunaken entrance fee system has been designed to be:

- Practical and efficient system that does not inconvenience visitors, operators or patrol team.
- No per dive / a la carte charges – one time fee. This system has been proven highly effective in Caribbean and Indian Ocean marine parks.
- Easily controlled by patrol team.
- Revenues must remain with the park for local conservation programs (not for general government use), such as conservation programs, education and awareness programs, enforcement activities, education sponsor for BNP villagers, local community development, research, promotion, rehabilitation programs, facility development, monitoring and evaluation, reef and beach clean-up activities, public works projects for BNP villages.

In accordance with North Sulawesi Provincial Law Number 14/2000 (passed in late December 2000), all visitors to Bunaken National Park will be required to pay an entrance fee. All foreign (non-Indonesian citizen) guests will be required to purchase an entrance tag for Rp 75,000 (approximately US\$8) before entering the park and local guests to purchase a ticket for Rp. 2500/trip. The allocation of entrance fee revenues is 80% for Bunaken conservation programs (managed by DPTNB) and 20% is for Local and central government. The entrance fee system was started on 15 March 2001, and widely publicized using FAQ sheets, publication in magazines and travel guides. In the first year, \$42,000 was been collected from 5194 foreign visitors and 9872 local visitors.

In 2002, the entrance fee was increased to Rp. 150,000/year (approximately \$15/year), with an added one-day ticket for foreigners (\$5/day). In the first 6 months, \$51,000 was collected, and it is targeted that over \$100,000 will be collected by year end.

The keys to success of the entrance fee are:

- Involving tourism community in the development of the system,
- Allocating the majority of funds collected to be used directly for programs in the park and not put in government coffers, and
- Full transparency of receipts and expenditures – published in papers, on website, and posted on community bulletin boards.

Figure 2. Entrance fee tags.



#### **d. Involvement of Private Sector in BNP Management**

As mentioned before, the zonation revision process has involved also marine tourism operators as represented by the North Sulawesi Watersports Association (NSWA). This is one of important factors of co-management of BNP.

NSWA was formed in 1997 by 7 dive operators. NSWA now involves 15 dive operators with good collaboration with government, villagers and local NGOs. In the first years, NSWA officially banned anchoring in the park by its members – backed up by a self-reporting scheme whereby violators of the ban faced the sanction of public exposure in the local newspaper. The campaign was very successful and anchoring by dive boats is no longer a threat to BNP's reefs.

Another concern of NSWA was to increase the benefits of tourism to local villagers. The initiatives include a commitment by each of the operators to hire more TNB villagers in their operations (as dive guides, boat captains, etc) and a local handicrafts program. Recently, the NSWA initiated a scholarship donation program, whereby diving guests are encouraged to donate towards any of five 3-year tourism vocational school scholarships and one 5-year marine sciences university scholarship to be awarded to promising young students from villages within the park. Some other education programs of NSWA include:

- Supporting printing of coral reef educational cartoon books for village schools,
- Mooring buoy design competition for villagers,
- Sponsored Earth Day Reef Cleanups (2000-2002) for Bunaken villagers and local schoolchildren, and
- Donated coral reef identification books/photos to community information centers.

#### **Joint Villager Patrol System**

A joint patrol system by the North Sulawesi Watersports Association, Balai Taman Nasional Bunaken and North Sulawesi Water Police has been actively patrolling the waters of Bunaken National Park since June 2000. Since March 2001, the entrance fee system has funded greatly expanded patrol system, involving park rangers, water police and 47 villagers with several patrol posts and boats, focusing on 5 main issues:

- Destructive fishing practices (bomb and cyanide fishing)
- Capture of protected species (dugongs and turtles)
- Illegal mangrove cutting
- Zonation system regulation enforcement
- Entrance fee enforcement
- Publicising BNP rules

Villagers recruited for the patrol system have already received training from BTNB rangers and NRM staff on the regulations of the new zonation system and ways of properly conducting patrols and approaching violators.

This system has greatly increased the enforcement in the park and has successfully arrested blast and cyanide fishermen and illegal mangrove cutters, and has been supported by the communities within the park. Involving villagers in the patrol system has the benefit of serving as a form of advertising the rules of the national park and especially the new zonation plan for Bunaken Island. Community awareness of the new zoning and the specific rules of the zonation system have increased rapidly. Bomb and cyanide fishing activities have been mostly shut down, and illegal mangrove cutting and turtle collection has decreased significantly.

### **Further Needs and Future Management Plans**

The successful co-management of the park has been achieved through the assistance of NRM-USAID such as facilitating zonation revision, providing secretariat of DPTNB, providing communication facilities (phone, facsimile and radio system for patrol), providing patrol boats. WWF-Wallacea also supports the operation of the joint patrol system. However, the indicators of success should be determined by all stakeholders with a comprehensive study.

Besides that, there is a need to undertake diver carrying capacity studies, with recommendations leading to strict limits on tourism development in the park. Possible leasing of tourism concession areas to DPTNB should be considered to allow more active local management of tourism development.

In the future, scientific monitoring programs (benthic, fish, spawning aggregation sites) should be developed to better inform local stakeholders of the effects of management initiatives. Likewise, the development of regular management performance assessment protocol will assist adaptive management. Finally, cooperation with ICRAN, TNC, WWF and CRMP is recommended to use Bunaken as a training center for improving management in other Indonesian and regional marine protected areas.

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