

Bombs, Fish and Zonation Schemes: A History of Collaborative Management of Bunaken National Park, Indonesia



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Overview of Presentation

Overview of NRM in Indonesia

Background on Bunaken National Park

Zonation Revision Process

Involvement of Private Sector and Local Communities in Mgmt (including patrol system)

Bunaken National Park Management Advisory Board

Park Entrance Fee System

A Look to the Future



Natural Resources Management in Indonesia

Indonesia is rich in natural resources, but recent history shows trends of rapid exploitation & degradation

- Rain forests disappearing fast: Sumatra & Kalimantan forests gone in 5 -10 years
- Fisheries & coral reefs facing similar fates
- Increased level of ecological problems & fewer resources to draw from

Indonesia's NRs have been centrally managed, inequitably distributed

- NR distribution & management determined in Jakarta, in a few powerful Ministries
- NR wealth inequitably distributed to Suharto family and cronies

1998 Reform Movement & 2000 Decentralization Laws create new opportunities for sustainable & equitable NRM

- Increased authority and responsibilities at the local level
- But capacity is low and the center is reluctant to give up control
- Time to develop win-win scenarios for effectively decentralized NRM

NRM/EPI Q's Approach to Strengthened & Decentralized NRM

Develop & Facilitate Responsible NRM & Clarify Roles

- Facilitate field-based, decentralized, co-mgmt partnerships
- Link results from field to national policy reforms & guidance

Strengthen Constituency for Improved NR Governance

- Empower citizens, build informed constituencies, promote participation
- Aim for sustainable, transparent, accountable, participatory NRM

Build Capacity for Decentralized NR Management

- Create institutional leadership/ownership on priority NR issues
- Hands-on training & experience with problem solving

Engage in a process of reform & improvement at all levels

NRM/EPI Q Protected Areas Management:

■ Bringing some management to Indonesia's Paper Park system

- Develop innovative, site-specific partnerships with local government, NGOs, universities and businesses
- Social marketing of conservation to build pride in local conservation initiatives
- Economic resource valuation to draw a financial link between conservation and ecological management interventions in regional development planning
- Support local legislation and policy to drive decentralized PA management
- Sustain work through self-financing systems for local conservation management initiatives through user fee systems, reforestation funds, etc.

■ Lessons learned from the field influence National Policy

- New Ministry of Forestry policy supports partnerships, self-financing and local legislation for decentralized protected areas management

■ And this makes a difference...

- People care about their parks, and Park Management is proud of their work
- Conservation value of parks like Bunaken on the rise

What is Co-Management?



- The sharing of specific political, fiscal and administrative powers among stakeholders representing different levels of government, civil society and the private sector.
- A blend of various aspects of *decentralization*, *deconcentration*, *democratization* and *privatization* to achieve an effective balance of rights and responsibilities essential to sustainable natural resources management.

Bunaken National Marine Park



- ◆ Established 1991, overseen by BTNB
- ◆ ~90,000 hectares, including 5 islands and North Sulawesi mainland (S and N sections)
- ◆ exceptionally diverse
- ◆ 22 villages inside park, ~30,000 residents

Bunaken National Park Tourism

Well-developed marine tourism industry - highly environmentally concerned

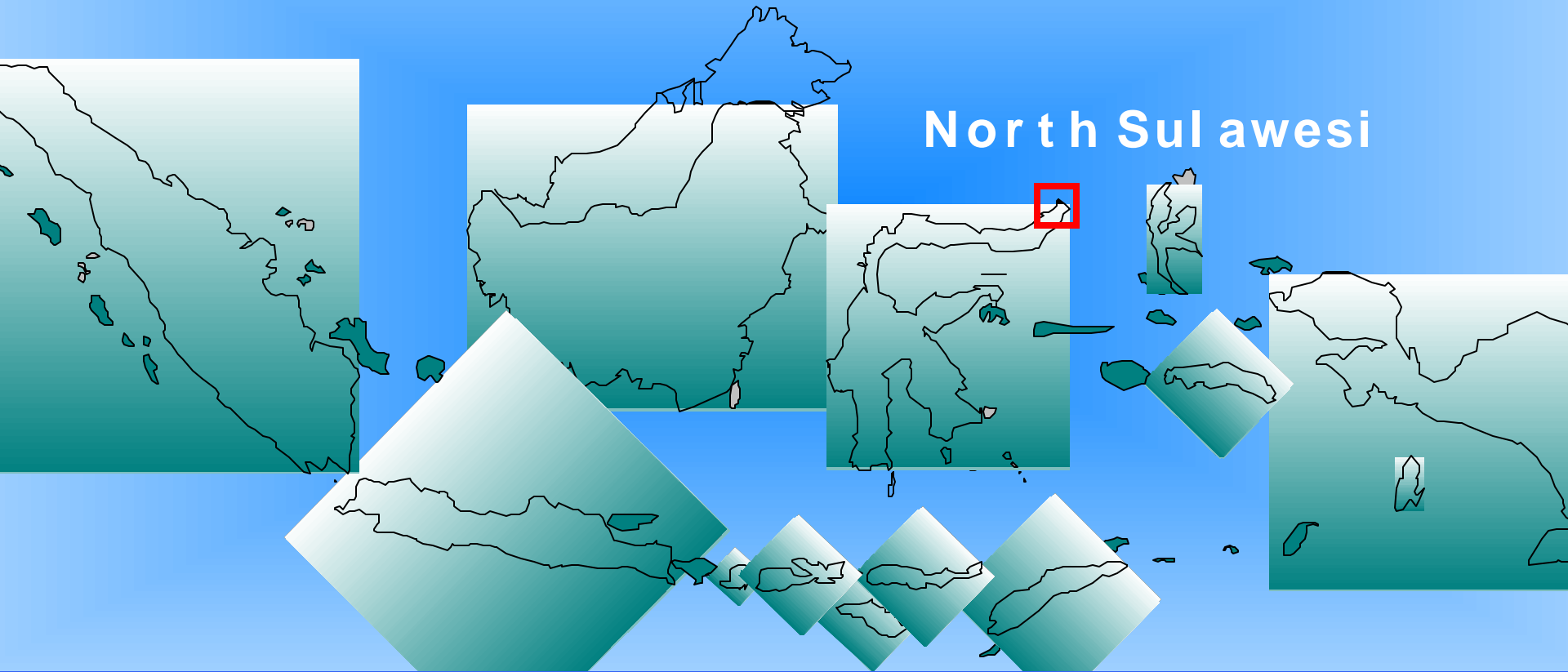
- ◆ ~20 dive operators – land-based and operating daytrips to park
- ◆ Accommodations ranging from 5* resorts to rustic backpacker cottages

Estimated 20,000 guests/year

Direct international airline access



Indonesia



North Sulawesi

Northern Section
Bunaken National Park

Nain Island

Mantehage Island

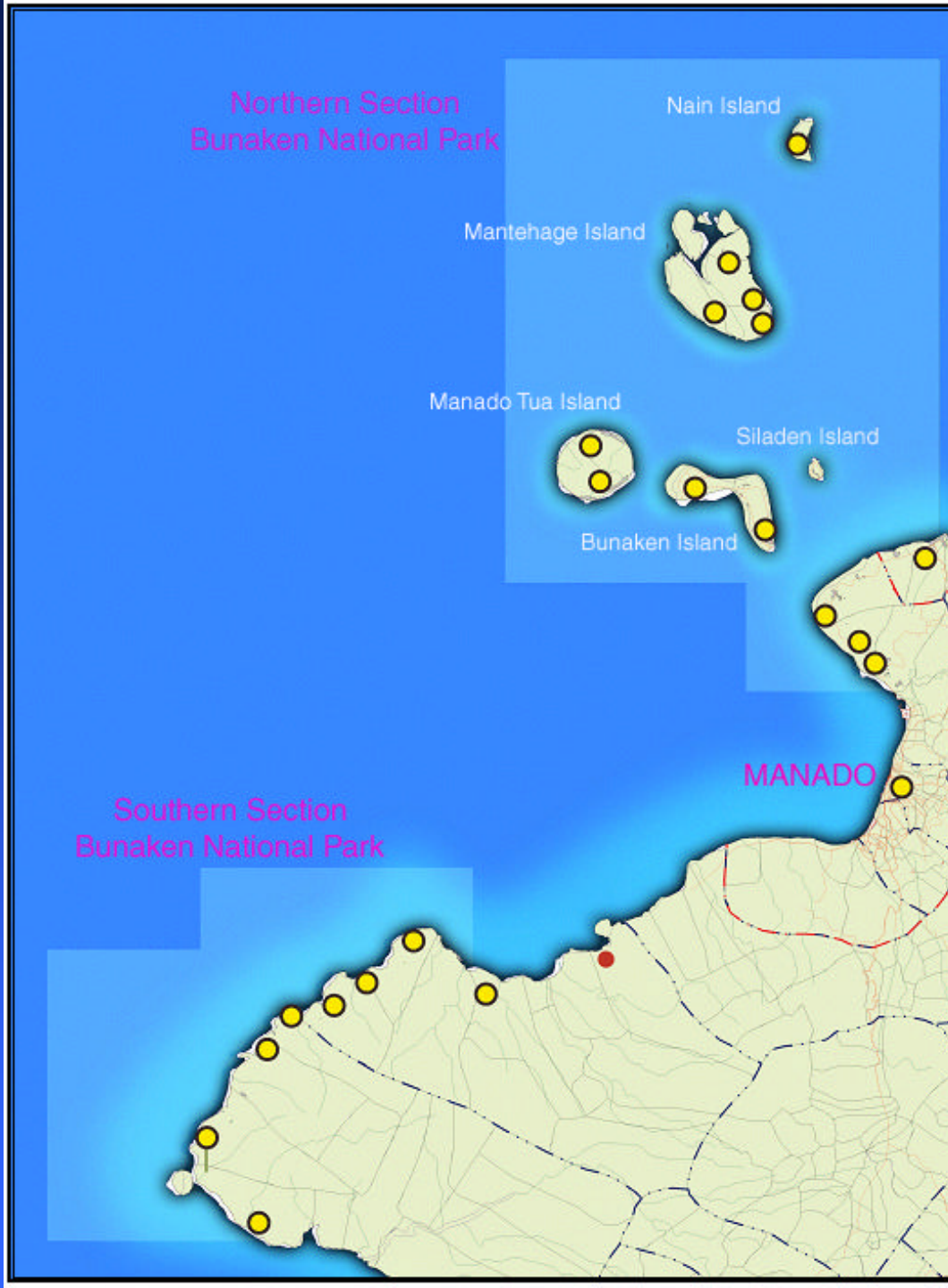
Manado Tua Island

Siladen Island

Bunaken Island

Southern Section
Bunaken National Park

MANADO





Despite national park status and significant funding inputs,

the park has suffered a slow, continuous degradation due to a number of threats....





Coral mining



Diver/anchor damage



Blast fishing

**AND
TRASH!!!!**



Cyanide fishing

BNP Management less than optimal over past decade due to a number of problems

Two conflicting and unclear zonation systems

Overlapping authorities (BTNB, local govt agencies)

Local communities and private sector not
constructively involved

Conservation funding levels continue to decline



Strategy for entering a new era of co-management of BNP

Participatory zonation revision process

Inclusion of local communities and private sector
management, particularly enforcement

Creation of a multistakeholder advisory board

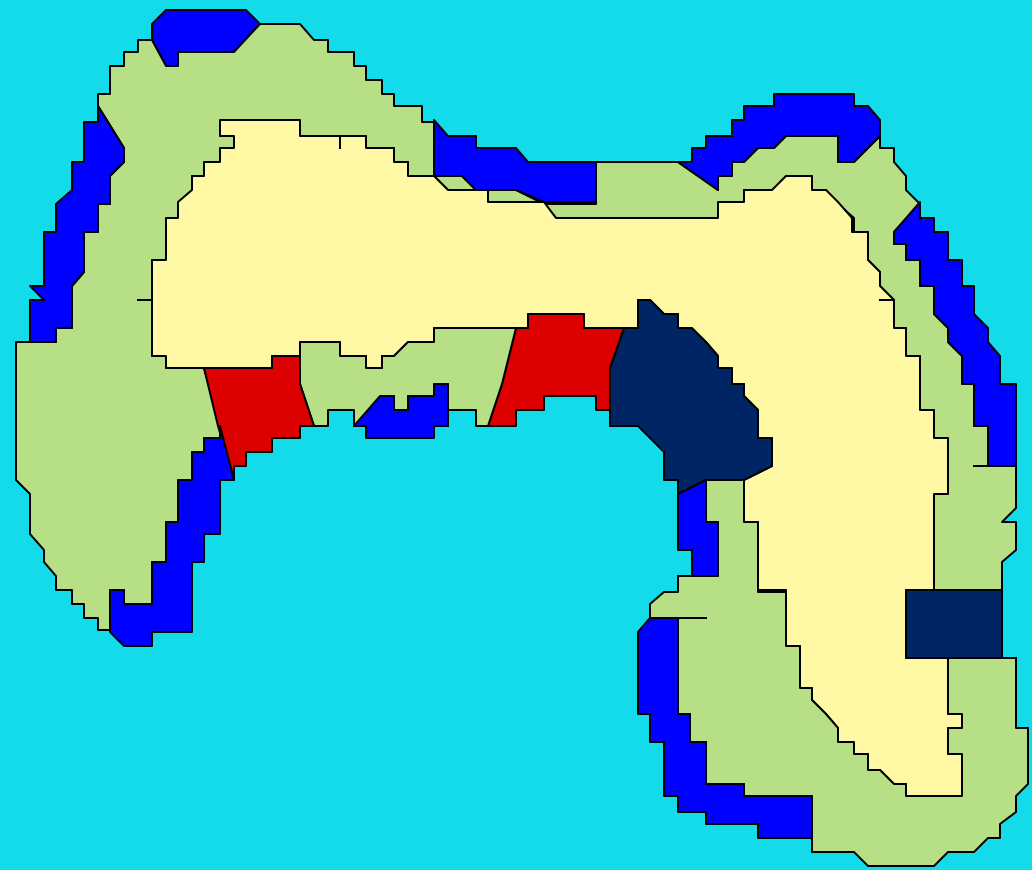
Implementation of a ground-breaking entrance fee
system for sustainable conservation financing

Support for BTNB to rise to the occasion and lead
other agencies in effective management of the
park

Zonation Revision

- 2 conflicting zonation systems
- Unclear demarcation of zones
- Ambiguous rules for each zone





ZONASI PULAU BUNAKEN

Zona

-  Zona Inti
-  Zona Pemanfaatan Intensif
-  Zona Pemanfaatan Terbatas
-  Zona Pemulihan
-  Zona Pendukung Daratan
-  Zona Pendukung Perairan
-  Zona Penyangga
-  Zona Rehabilitasi

Zonation Revision

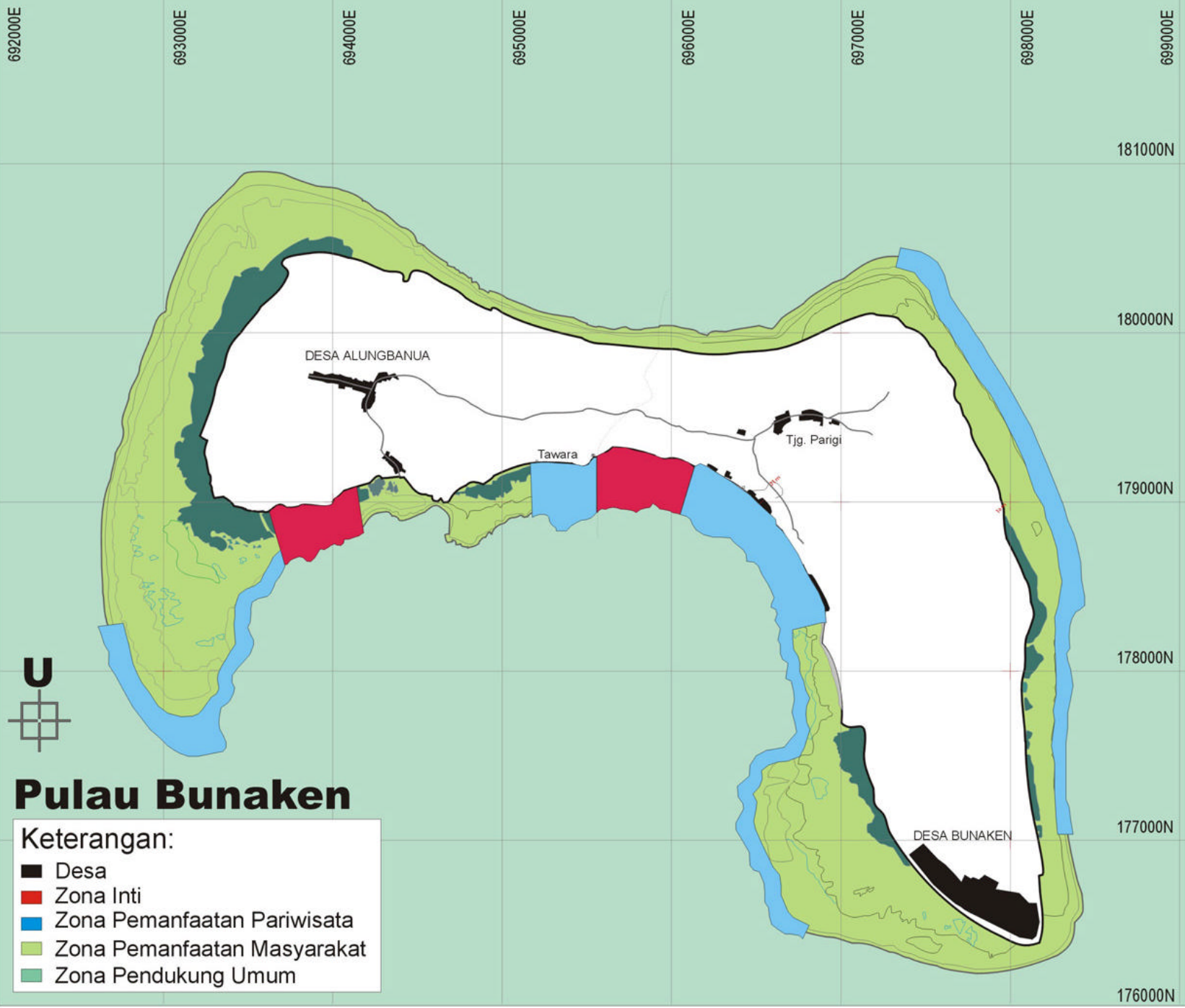
- Initial attempts in govt offices stagnated
- New focus on 2 primary user groups: villagers and marine tourism operators (in conjunction with BTNB rangers)
- Village-by-village process, starting with Bunaken Island
- Accommodate current use patterns, formulate *explicit* rules for each zone
- Parallel meetings with 2 user groups, using combination of open and focal group meetings

Bunaken island completed in late 2000, signed off
as agreement between BTNB and 2 village
governments

Both user groups willing to compromise

Draft revision widely distributed, 1 month public
commentary period, then "firestorm of publicity"
using billboards, posters, etc.





Pulau Bunaken

- Keterangan:**
- Desa
 - Zona Inti
 - Zona Pemanfaatan Pariwisata
 - Zona Pemanfaatan Masyarakat
 - Zona Pendukung Umum

BEBERAPA PERATURAN PENTING ZONASI PULAU BAMBANZEN (UNTUK INFORMASI LEMKAP DAHAT MENGHUNISI BALAI TK. PULAU BAMBANZEN TELUK BUKIT 200022)

PULAU BAMBANZEN
 Koordinat: 04° 1' 30" S
 101° 30' 0" E
 Zona
 Zona Pemukiman Masyarakat
 Zona Pemukiman Pesisir
 Zona WTL

Nama Zona	Kegiatan yang diperbolehkan	Kegiatan yang tidak diperbolehkan
ZONA PEMUKIMAN MASYARAKAT	<ul style="list-style-type: none"> Mengisi, memperbaiki, merawat atau mengganti rumah, membuat jalan atau yang tidak bertentangan dengan peraturan zonasi. Melakukan pemeliharaan terhadap air (PWS) Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan air. Melakukan pemeliharaan air. Melakukan pemeliharaan air. Melakukan pemeliharaan air. Melakukan pemeliharaan air. Melakukan pemeliharaan air. 	<ul style="list-style-type: none"> Berjualan atau menjual barang-barang di jalan atau di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan.
ZONA PEMUKIMAN PESISIR	<ul style="list-style-type: none"> Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. 	<ul style="list-style-type: none"> Berjualan atau menjual barang-barang di jalan atau di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan.
ZONA WTL	<ul style="list-style-type: none"> Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. Melakukan pemeliharaan, pemeliharaan, pemeliharaan dan pemeliharaan. 	<ul style="list-style-type: none"> Berjualan atau menjual barang-barang di jalan atau di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan. Menjual barang-barang di pinggir jalan.

SANKSI
 PELANGGARAN ATAS PELANGGARAN INI AKAN DITUKAR SANKSI PIDANA MAKSIMAL 10 (SEPULUH) TAHUN KEKURANG SANKSI DENDA PIDANA DAKWAH Rp. 500.000.000 - LIMA RATUS JUTA RUPIAH

Features of Bunaken Zonation Revisions

3 original zones reduced to 3 primary zones with clearly understandable zone names

No more "jigsaw puzzle" zonation - 11 original tourism zones reduced to 3 large ones with clearly demarcated borders.

EXPLICIT rules for each zone that reflect a compromise of different user groups' activities.

RESULTS WORKING! 11.3% increase in hard coral cover in 2 years



Private Sector Involvement in Management



NSWA

- Formed in 1998, 7 dive operators
- Now includes 14 operators, with strong links to BTNB, environmental NGO's



NSWA Activities - "3 E's"

Education, Employment, Enforcement

EDUCATION:

Supported printing of NRM/EPI Q coral reef educational cartoon books

Scholarship donation program for local villagers

Mooring buoy design competition for villagers

Sponsored Earth Day 2001, 2002 Reef Cleanups for Bunaken Villagers

Donated coral reef identification books/photos to community information centers



NSWA Activities - "3 E's"

EMPLOYMENT:

Committed to hiring more villagers directly in operations (boatmen, dive guides, cooks, receptionists)

Village handicrafts program

Purchase of pelagic fish products from villagers (mahi-mahi, etc). NOTE - no reef fish in restaurants!

Helped develop entrance fee system that now employs 52 local villagers in patrol system and fee collection.



NSWA Activities - "3 E's"

ENFORCEMENT:

Strict ban on anchoring

Innovative Patrol Agreement with BTNB/Police, using Bunaken Preservation Fund (\$5/diver) to fund patrols (with NRM matching grant). Highly successful in curbing DFP and socializing new zonation system!

Villager involvement

"Hand-off" to BNPMAB



Villager Involvement in Mgmt: Joint Villager/Ranger Patrol System

- 24/7, 52 villagers and 13 rangers
- While villagers not allowed to make arrests or carry firearms, their presence has been crucial
- Virtual elimination of DFP (blasting, cyaniding)
- WWF grant support



Involvement of communities: Bunaken Concerned Citizen's Forum

- Includes villagers from all 22 villages in park
- 3 Sections: Island, Northern Mainland, Southern mainland



Functions of the Bunaken Concerned Citizen's Forum

Represent villager aspirations in BNP management decisions via the BNPMAB, and communicate BNPMAB policies to constituency

Formulate village conservation activities that are appropriate for specific village conditions



Activities of the Bunaken Concerned Citizen's Forum

Manages a 30 station park-wide VHF radio network (patrols, communications)

Participates actively in BNPMAB meetings and policy dialogues

Solicits/sponsors proposals for conservation and development activities to BNPMAB and local gov



Towards true co-management of BNP Bunaken National Park Management Advisory Board (BNPMAAB)



BNPMAB Composition

Multistakeholder board established by Governor's Decree #233/2000, sworn in by Minister of Forestry

15 seats on board: 8 non-governmental, 7 governmental

- Vice Governor North Sulawesi
- 5 village representatives from Concerned Citizen's Forum
- BTNB (Park Authority)
- WALHI (Environmental NGO)
- Tourism Dept
- Fisheries Dept
- Local University (UNSRAT)
- Private Sector (NSWA)
- Environmental agencies (city, district, province)



Executive Secretariat (professionals) for operational activities

Functions of BNPMAAB advisory board

Instill a sense of pride and ownership by local stakeholders in the conservation of BNP.

Coordinate policies of the various government agencies with authority within the park.

Support the BTNB in formulating and funding conservation programs in the park.



BNPMAB: First Year Priorities



Design and implement an effective entrance fee system

Expand the joint BTNB/NSWA/police patrol system
(involving villagers)

Institutional development of BNPMAB and secretariat

Implement trash collection program on Bunaken Island

Institutional development of FMPTNB citizen's forum

DPTNB: Five year priorities



Alternative livelihood programs in 22 villages

Conservation education in 22 villages

Environmentally-friendly village development programs

– Village docks, sanitation systems, running water

Alternative ecotourism development

BNPMAB: Conservation financing sources

Entrance Fee System (PERDA SULUT No. 14/2000 & No. 9/2002)

Grant money from international donors (WWF, NRM, Seacology)

Operational/routine funding from agencies involved in BNPMAB



Bunaken Entrance Fee System

Based on ground-breaking provincial laws, with agreement of PHKA (Dept of Nature Conservation)

Fees reflect value of resource to user (willingness to pay)

Designed with aspirations of tourism sector:

- Practical and efficient system that does not inconvenience visitors, dive operators, or patrol team.
- No per dive/ala carte charges – one time fee!
- Revenues must remain with the park for local conservation programs



Bunaken Entrance Fee System

Dual system

- Foreign guests (numbered plastic tags): Rp 150,000/year (~\$15)
- Local guests (ticket) Rp 2500/trip (~\$.25)

Distribution of entrance fee revenues

- 80% BNPMAB—specifically for Bunaken conservation program
- 20% local government – North Sulawesi, Minihasa district, Manado city, Jakarta



Entrance Fee System (continued)

Soft opening on 15 March 2001 – with auction

Fully operational by 3 May 2001 after extensive socialization to tourism sector (meetings, articles, FAQ sheets, announcements, billboards).

Entrance gates, patrol system to check compliance

In first year, collected ~\$42,000 from

5194 foreign visitors and

9872 local visitors.



Entrance Fee System (continued)

In 2002, increased entrance fee from Rp 75,000/year to Rp 150,000/year

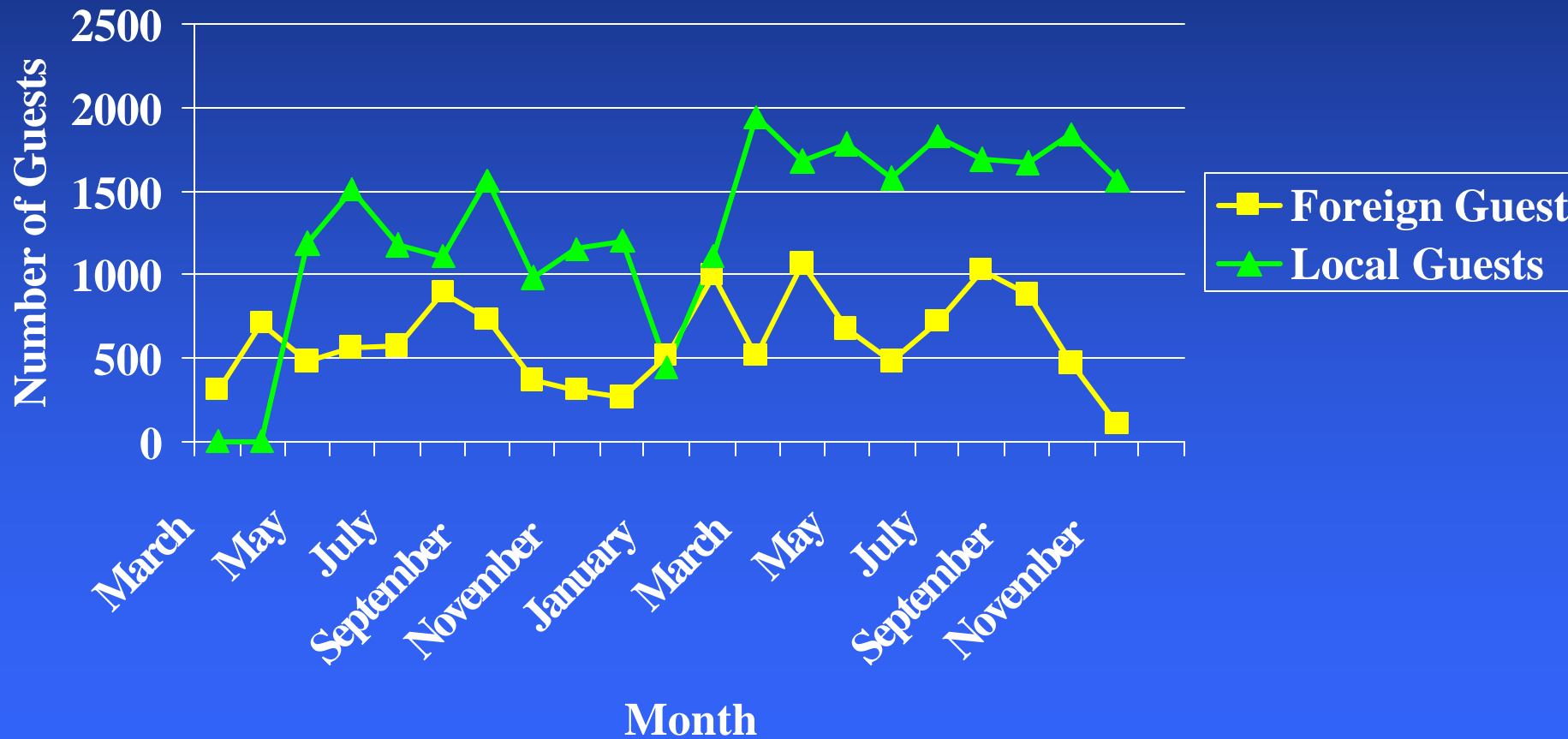
Added one-day ticket for foreigners (~\$5/day)

Already doubled the proceeds from 2001 in first ten months, targeting over \$100,000 for 2002.



Tourism Arrivals

Bunaken National Park 2001-2002



Benefits of co-management

Coordination with local government agencies much better (fisheries, environmental agency, etc)

BNPMAB's decentralized user fee system provides financial resources for conservation/development

All stakeholders much more satisfied with coordinative approach and more supportive of park's goals

Participatory zonation and enforcement has proved extremely successful

Better relations with mass media

A Look to the Future...



Institutional Strengthening of Co-Management Partners

- **BNPMAB**. Develop into a world-class mgmt body like GBRMPA - particular emphasis on executive secretariat
- **Concerned Citizen's Forum**. Encourage democratic process at village level and attain true village representation
- **BTNB**. Vitalization underway! Ranger trainings institutional transformation

Attainment of Financial Self-reliance

Targeting 100% financial sustainability by 2005
(projected annual budget of \$400,000)

- \$200,000 per year via entrance fee system (increase fee for both international and domestic visitors gradually)
- Diversify other revenue streams to reduce dependency on potentially unstable tourism industry
 - » national/international grants
 - » merchandising at new visitor center
 - » international volunteers system
 - » endowment program via WCPA (targeting \$5 million)

New Emphasis on Monitoring and Evaluation

Necessary to:

- gauge effectiveness of programs
- highlight problem areas
- “prove” utility of zonation system to communities
- identify SPAGs and monitor their recovery

Provide a better scientific basis to management decisions that are currently based on compromise between user groups

Bunaken as an MPA "Center of Excellence"

- Training center for other Indonesian MPA's
 - Wakatobi, Taka Bone Rate
 - Komodo, Bali Barat
- Model for development of new MPA's
 - Lembeh Strait, Sangihe-Talaud
- Plans for cooperation with WWF, CI, TNC, CRMP, World Bank/Asian Development Bank
- Strategic position in the Sulu-Sulawesi Seas Ecoregion – a marine biodiversity hotspot and established priority region, and now a proposed Global Marine Heritage Site and ICRAN pilot site.

VIVA BUNAKEN!

