Sustainable Marine Park Financing through Ecotourism

Chumbe Island Coral Park, Zanzibar

Case study presented to
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Zanzibar / Tanzania

- Semi-independent state “Spice island”
- Ca 1.2 million inhabitants distributed over 2 islands
- High dependence on artisanal fishing
- After collapse of clove export industry opening up and liberalizing economy in early 1990’s
- Today tourism backbone of the economy, mostly marine & beach tourism
Tanzanian coral reefs threatened by:

- Overfishing
- Coastal overdevelopment
- Aquarium & Curio trade
- Pollution, oil & gas
- Global warming - bleaching
- Blast fishing
- Fish poisoning
Spotlight on: Dynamite fishing

- Daily along the Mainland coast, mostly at low tides
- Going on for decades, except 1997-2004 when Navy was deployed
- Highly organized networks provide explosives, employ fishers, trade catches
- Politically well-connected
- Enforcement ineffectual
- Laws exist, but judiciary not co-operative
- Main challenges corruption, lack of political will, not lack of funding
Ecotourism - sustainable option for economic use of coral reefs

This Manta is one meal for few people only.

This Manta can provide income for many people over many years...

..if benefits are shared?
Private investment can directly support marine conservation

Operators are on the ground, can build local alliances with other resource users;

- May invest directly in marine conservation, e.g. **private Marine parks** like Chumbe Island Coral Park,
- or **manage** small Marine parks, core zones under contract,
- also **support** Monitoring, surveillance, training, marketing.
Private investment into terrestrial parks is challenging...

Terrestrial parks:

- Often exclude local people,
- ‘Spill-over’ not beneficial, when harvesting wildlife is illegal;
- Instead human-wildlife conflicts, e.g. danger to life & damage to crops & livestock;
- ‘Benefit sharing’ not automatic & often controversial:
- Compensate local people for lost resource use from tourism revenues: **source of conflicts**
...while it can more directly benefit local resource users of Marine Parks

‘No-take’ Marine parks

- Also exclude local people
- But provide fish nurseries & spawning grounds
- Re-stock neighbouring areas,
- ‘Spill-over effect’ increases catches after 3-5 years
- Fishers benefit directly...
- No human-wildlife conflicts
- Good potential for alliance between fishers and tourism investors
Chumbe Island
It all began in 1991...

Consultancy on Environmental Education in Zbr 1991:

- Corals don’t figure in school curricula
- Low public awareness on coral reefs
- No Kiswahili word for ‘corals’
- No MPA in Tz
- No MPA policy, institutions, law

1 km x 200 m, 22 ha
Chumbe Island: window of opportunity in 1991

- GoZ eager for tourism investment
- Island uninhabited, minimal traditional exploitation, healthy shallow fringing reef, historic ruins, accessible for visitors...
- Adjacent villages supportive to project
CHICOP = social biz: PES based on a Marine Conservation Agreement (MCA)

“To manage, for conservation purposes, the Chumbe Island Reef Sanctuary and the Chumbe Island Forest Reserve. This includes educational and commercial activities related to the non-consumptive use of the above mentioned natural resources…”

- Detailed in Management Plans 1995-2016
Negotiation process 1991-94

- Seven GoZ departments, challenge to find allies...
- Baseline surveys to establish conservation value of the island...
- While having to present this as a “tourism investment”
- But based on condition that GoZ should designate the island for a MPA and Forest Reserve to be developed and managed privately
Winning community support for the Marine Park...

- Village meetings (1991/92)
- Training fishers as Park Rangers (from 1992)
- Informal on-the-job training by volunteers
- Park Rangers “educate” fishers & help in emergency
- Env. Education programs
- Advisory Committee
Marine Park & Forest Reserve
(fully protected since 1994)

Sanctuary for endangered
- Aders duiker
- Coconut crab

Protected by Park rangers (former fishers)
Flagship species

Green & Hawksbill turtles

Roseate terns breeding in 1997 & 2007

Rare Coconut crabs

Endemic Aders duikers translocated in 2000
Invasive species & threats

Indian house crow

Rattus rattus eradicated in 1997

COTs

Diadema
Visitors’ Centre & Nature trails

Guest management and education (max 16 people per day)

Lowest impact Eco-architecture
Visitors’ Center

Photo: Jimmy Livefjord
Eco-lodge (7 bungalows) with state-of-the-art eco-technology

- Rainwater catchment
- Composting toilets
- Vegetative grey water filtration
- Solar energy

Photo: Manolo Yllera
Environmental Education programs

- Awareness tours for Government officials
- Workshops for fishermen & “Enforcement through education”
- Teacher training, teaching modules, School excursions for snorkelling & nature trails: up to mid 2013 ca. 5,600 kids, 980 teachers, 346 others

Critical issue: are up-market guests disturbed by school children?
Funding Marine Park development – Pre-operational phase 1991-98

Total 1.2 Mio US$

Sources of investment:
- **50% private funds FDI**;
- **25% ca 40 Volunteers** (incl. Project initiator / main investor), individuals & agencies SES, BESO, APSO.
- **25% Donor support** for baseline surveys, nature trails, Visitors’ Centre: GTZ, GTZ-CIM, GTZ-GATE, Forest Stamp Program, Netherlands Embassy, EC-Microfund, etc.
Chumbe staff–room ratio: 3 x worldwide average of Eco-lodges

Staff: 3 expatriates, 41 Zanzibar.
Ca. 30% directly employed for Park Management & Education programs:

- **Conservation Coordinator**, Marine biologist, supervising Rangers and conservation & education programs;
- **8 Park Rangers**, former fishers, for enforcement, monitoring, guidance of visitors and EE programs;
- **Education Coordinator** for EE programs.
Ecolodge - what worked best in marketing?

International Awards, e.g.
- 1999 British Airways Tourism for Tomorrow Global Award
- 2000 UNEP Global 500
- 2004 World Legacy Award NatGeo
- 2006 Responsible Tourism Award
- 2010 BBC World Challenge Award
- Certified as ‘Long Run Destination’ by Jochen Zeitz Foundation

TripAdvisor.com - No.1, travel writers, Press, TV & Radio documentaries, Word of Mouth

Occupancy rate 1999-2012

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Income from visitors 1998-2012
(in 1,000 US$)

Ecotourism –
Now only source of income

Direct donor support:
- Aders’ duiker Sanctuary
- EE Program

Indirect support:
- Volunteer work
- TripAdvisor & Awards are free
  PR through TV documentaries & travel writers, 1998-2008 worth ca. 10 Million US$
Sustainability: Operations fully covered by Eco-tourism proceeds from 2000

Ca 30% of revenue used for conservation & education
Min. budget needed ca 250,000 US$/year, ca 30% occupancy.

Partnerships & Cost control:
- GoZ, NGOs & Zoos for protected species sanctuaries
- Volunteers & University researchers for R & M
Lessons learned:

- **Red tape** & corruption delayed operations and multiplied investment costs (x 3)
- **Eco-technology** costly
- Need to go up-market
- ...and for **innovative marketing**
- ...but **there is a market for genuine Ecolodges running strict nature reserves**
- **Critical:** volatile tourism market, but **not threatening sustainability** so far…