

**Applications Session**

Learning from concrete successes of sustainably financing protected areas

**Workshop 7**

Role of Private Sector Partnerships in Supporting Protected Areas

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**Private Sector Investment in Marine Conservation:  
What Can Make it Happen?  
Experiences of Chumbe Island Coral Park Ltd.**

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**Abstract**

Chumbe Island Coral Park Ltd (CHICOP), established in 1991 and probably the first fully functioning Marine Protected Area (MPA) in Tanzania, illustrates issues for a privately created and managed marine protected area in East Africa. Investment and fisheries legislation and the institutional environment of Zanzibar (Tanzania) made the park possible, but required higher investment than anticipated. Management costs are funded through ecotourism and are much lower than donor-funded government-run park budgets. Particularly, training and employment of local fishermen as park rangers by volunteers proved cost effective and facilitated direct partnership with local fishing communities.

Non-extractive and non-destructive use through ecotourism adds economic value to coral reefs and creates incentives for effective and sustainable conservation. The private sector can play a decisive role in establishing and managing no take ecological marine reserves that support biodiversity and fisheries. Private sector cost control and income generation create better prospects for sustainability. To encourage private investment in partnerships for conservation, a conducive investment climate, security of tenure and contractual security are essential. International insurance schemes for MPAs could help buffer risks of volatile tourism markets.

In donor-dependent countries in the developing world, effective conservation area management may require a change of paradigms. It must be acknowledged that people using the same marine area, -fishers, tourism operators, seaweed farmers - respond to economic incentives derived from that particular area, irrespective of whether they belong to the formal or the informal economy. Therefore, the common dichotomy between the 'local community' and the 'private sector' is not helpful for identifying local stakeholders. In contrast, government and donor agencies have primarily institutional interests that provide few direct incentives for effective conservation or management of a particular area. Commercial risks of the private sector need to be acknowledged and competition from over-funded donor projects avoided. Where governance is problematic, environmental certification is more effective for responsible management than state regulations. Finally, international donor support would have more impact when seeking partnerships with direct resource users from both the informal and

formal private sectors, including support to privately managed MPAs.<sup>1</sup>

## Private sector investment in marine conservation

It is widely recognised that Marine Protected Areas (MPAs) play a crucial role both in biodiversity conservation and in coral and fish stock replenishment. The main obstacle to successful management of tropical marine protected areas is that despite the true benefits generated by them, governments assign low priority and insufficient financial resources to pay for the infrastructure, training, education, and a host of recurrent costs. This has led to a large number of so called 'paper parks', i.e. parks that only exist in the books, but where no active management is present, especially in developing countries.

Besides government funding, revenues for management can be generated from activities in and around the park. User fees, accommodation charges, tour guide services, royalties, charges on research and fees for game permits, restaurant charges and private donations are other potential sources of revenues (Dixon and Sherman, 1990). These could help the park become a conservation success without being a financial burden to the government and the donor community.

One step beyond this option are so-called entrepreneurial MPAs (Colwell, 1998), where the government has actually handed over the day-to-day management to a private entity, typically an ecotourism establishment or an NGO. This can be done for part of the total management, such as day-to-day enforcement but it can also be a complete hand-over of responsibilities, for instance through a management contract. It is also possible that private entities, be they enterprises or NGOs, can actually buy up or lease certain areas of high biodiversity with the aim of protecting the biodiversity of these areas.

Reviewing cases of successful private initiatives in coral reef conservation in the Philippines and Honduras, Colwell (1999) suggests that entrepreneurial MPAs perform several valuable functions. They protect discrete areas that serve as refuges for threatened marine life; build local awareness, support and management capacity; act as test cases for MPA management techniques; and provide core areas around which larger parks could be developed. By establishing effective on-site management more easily than with more traditional government-formed MPAs, entrepreneurial parks provide the quick success stories that planners and managers need in order to convince a broader audience of the value of MPAs. Colwell concludes that "for the immediate future, private management of small-scale MPAs may well be the key to successful conservation in a number of coral reef areas that otherwise would have little or no hope of meaningful protection." One such example is Chumbe Island Coral Park Ltd. in Zanzibar/Tanzania.

## The Chumbe Island Coral Park Project

Chumbe Island Coral Park Ltd. (CHICOP) was established in 1991 for the sustainable management of uninhabited Chumbe Island, a small coral island of 22 ha. located 8 miles southwest of Zanzibar town. Chumbe is covered by a semi-arid coastal forest and bordered, on its western shore, by a fringing coral reef of exceptional biodiversity.

In the early nineties, Chumbe Island offered ideal conditions for the establishment of a small totally protected MPA. Bordering the shipping channel between Zanzibar and the capital of Tanzania, Dar es Salaam, its western fringing reef had for decades been off-limits for local fishers, as the traditional dugouts and outrigger boats would have obstructed the way of large vessels. In addition, a military base on the adjacent coast used the area around Chumbe for shooting range exercises. Yet the island had not been included in earlier proposals for MPAs in the country.

Based on the initiative of CHICOP, the island and part of the fringing coral reef were gazetted in 1994 as a protected area by the Government of Zanzibar that has semi-autonomous powers over its natural resources within the United Republic of Tanzania. CHICOP was given management rights and has

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<sup>1</sup> This paper is based partly on Riedmiller, S. (2000), Private Sector Management of Marine Protected Areas: The Chumbe Island Case, In: Cesar H.S.J. (ed.), Collected Essays on the Economics of Coral Reefs, CORDIO, SIDA

developed nature trails, a visitors' centre and seven eco-bungalows. All development on Chumbe Island is based on state-of-the-art technology of renewable low-impact water and energy management (composting toilets, vegetative grey-water filtration beds, rainwater catchment, solar energy).

Ecotourism to Chumbe supports conservation area management and island excursions for local schoolchildren. Project objectives are non-commercial, while operations follow commercial principles. From 2000, running costs of MPA management are fully covered from proceeds of tourism operations.<sup>2</sup>

## Lessons learned

In the early nineties, the Chumbe project could use a window of opportunity to create a small totally closed MPA. Similar to other island states in the Indian Ocean, Zanzibar had opted for economic and political liberalization and made tourism the leading sector of the economy. The 1986 Zanzibar Investment Act and the 1988 Zanzibar Fisheries Act provided the legal basis for gazettement of the Chumbe Reef Sanctuary as an entrepreneurial MPA, in the absence of a legal framework and institutions for conservation. Based on this and the lease of a plot on Chumbe Island, management agreements were signed between CHICOP and the Ministry of Agriculture, Livestock and Natural Resources in 1994 and 1995. Being very experimental from the outset, critical issues for investment in conservation came up during implementation and many valuable lessons were learned.

### ***On the positive side: private MPA management can work on the ground!***

The Chumbe case suggests that private management of small totally closed MPAs is technically feasible and efficient, even when government enforcement is not available or is ineffective. This is probably the case for areas that are not over-exploited by communities depending on them for their survival or by commercial fisheries. The main positive experiences are:

- **Recruiting park rangers among fishermen and training them on the job by volunteers has worked very well.** Rangers are now stationed on the island and manage the Reef Sanctuary with no means of enforcement other than persuasion of fellow fishers. They monitor any event or infringement and observations on any major change in the coral reef, such as storm or coral bleaching. There is probably no other MPA in the region that has such an uninterrupted daily database for over a decade!
- When interacting with local fishers, the rangers stress the role of the protected area as a breeding ground for fish. This has worked, as after a decade of total closure of the protected area, local fishers indeed enjoy **increased catches outside the park boundaries**. This welcome spill-over effect is now being researched. It provides a convincing rationale for the park for local fishers and they now generally respect the park boundaries.
- The project has also helped to **raise conservation awareness** and understanding of the legal and institutional requirements of MPAs among government officials. Seven government departments were involved in negotiating the project in the initial phase and are represented on the Advisory Committee. This has enhanced political support and prepared the ground for improvements in Zanzibar's legal framework to support conservation projects. Encouraged by the successful conclusion of negotiations over Chumbe, subsequent environmental legislation passed in 1997 in Zanzibar provides for private management of protected areas.
- With an overall investment of over US\$1.4 million over nine years at 1999 prices, the **cost of private management is probably considerably lower** than would have been the case with a donor-funded project through the usual government mechanisms. In addition, simple, low cost and locally maintainable equipment was given preference over sophisticated imports. This not only saved costs, but also provided employment and income to local people from informal markets and further strengthened support for the project.

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<sup>2</sup>The Chumbe Project is described in more detail in Riedmiller, S. (1998), "The Chumbe Island Coral Park Project, Management Experiences of a Private Marine Conservation Project, Paper presented at the ICRI-International Tropical Marine Ecosystems Management Symposium (ITMEMS1), November 23-26, Townsville, Australia

- **Marketing** is a critical component for succeeding in the highly competitive environment of tourism. Conventional marketing methods, such as advertising in the media and participation in travel fairs, are too costly for small projects and also not effective in targeting the ecotourism niche market. CHICOP successfully chose a different strategy that included recognition by the international conservation community, international environmental awards and targeted marketing over the Internet.

In summary, the Chumbe case suggests that a private protected area can provide important community benefits, particularly in conserving biodiversity and restocking fisheries resources, raising awareness and political support and building capacity. The Chumbe Reef Sanctuary and Forest Reserve provide a safe haven for endangered species and breeding grounds for corals, reef fishes and other marine and forest organisms that are under threat elsewhere. Depleted areas downstream have seen their fisheries stock enhanced by the Chumbe Sanctuary.

Private protected areas also help to drastically reduce costs of conservation, provide sustainable finances and market a destination in the rapidly growing ecotourism market. The strong international presence of Chumbe has not only sustained sufficient income to park management, but also helped attract environmentally and cultural sensitive tourists to Zanzibar.

***On the negative side: ...private investment in conservation increases political and commercial risks.***

After over a decade of successful work on the ground, the Chumbe management would conclude that private companies will find it difficult to shoulder the political and commercial risks of investing in marine conservation under developing country conditions, unless there is more political and material support, rather than competition, from the international donor and conservation community.

Though Tanzania and Zanzibar depend heavily on international donor advice and support, the following core problems for private investment are not yet addressed sufficiently.

- The **policy and legal framework** in Zanzibar is not consistent in support of private initiatives in conservation. The official tourism policy in Zanzibar emphasizes eco-tourism, but laws, regulations and administrative practice do not encourage environmentally friendly investment in the sector. Investment and building regulations prescribe multi-million dollar concrete buildings and infrastructure and discourage small and medium-sized low-input projects and building designs. For example, non-permanent and low-impact tented camps and palm-thatched roofs popular in game parks in Kenya and mainland Tanzania are not allowed in Zanzibar.
- **Investment security is limited** by the fact that land tenure in Tanzania and Zanzibar is only available on leasehold, in contrast to other African countries, such as South Africa, Namibia, Botswana and Kenya, which allow freehold and have attracted considerable private investment in protected areas (Watkins et al., 1996). Land leases issued under the 1986 Zanzibar Investment Protection Act can be revoked by the State with relative ease, thus further weakening long-term security of tenure.
- The above situation could be offset to a certain degree by **secure land occupancy rights and tax and other incentives** for investment in environment and conservation, such as long-term land lease and management rights, exemption from or reduction of land rents, licenses, fees and taxes. However, these are not readily granted. For example, CHICOP is presently engaged in a conflict with the Zanzibar tax authorities over the Chumbe Education and Research Programs, where full tax payment is demanded for all schoolchildren and researchers visiting the island, though no income is generated with these programs.
- As is widely perceived among investors in the country, the **multiple and cumbersome bureaucratic requirements** and the wide discretionary powers for government officials encourage corruption and delay operations, thus adding to investment insecurity and costs (Rauth, 1997).<sup>3</sup>

<sup>3</sup>Rauth (1997) elaborates that, as a heritage of socialist or state-dominated economic policies in the past, "most African countries still use control oriented approaches that have resulted in rule-driven bureaucracies with little service mentality.

Innovative and environmentally-friendly project designs in particular must expect even more thorough scrutiny from government officials during implementation, and to our surprise, even after years of successful operation and International recognition.

- The logistical requirements of building on an island also greatly increase development costs. In particular, the **innovative technology for water and energy provision**, as well as the commitment to minimize degradation of the island environment can be cost-prohibitive. A compost toilet, for example, which operates without producing any sewerage, costs about five times the price of a flush toilet. In addition, much of the eco-technology on the market today has not been tested under tropical and developing country conditions, requiring costly adjustments.
- In addition, the **tourism industry is particularly volatile** and sensitive to political turmoil (often associated with election periods), adverse weather conditions (el Niño) and perceived security and health risks. Over the last three years, East Africa as a whole had more than its fair share of these problems, with an immediate and sometimes drastic decline in tourist arrivals. Riots in Zanzibar during election times in 2000 and in early 2001, as well as worldwide events have resulted in cancellations and lower than normal occupancy rates. Nonetheless, the Chumbe Project has managed to cover operation costs with tourism proceeds from 2000 and is now fully sustainable.

The increased investment costs and the continuing burden of government licenses, fees and taxes has forced CHICOP to revise the price structure and target the higher end tourism market. However, realistic price levels that reflect conservation costs are difficult to realize as long as unmanaged and donor-managed wilderness areas can be accessed at low cost (though still charging high prices) by the tourism industry. It can be said that Chumbe Island faces 'unfair competition' from destinations subsidized with donor funds.

## Getting the private sector on board for effective marine conservation

With the rapid deterioration of coral reefs around the world and decades of failure of paper parks run by government agencies, community-based parks, public-private partnership arrangements and private investment for MPA establishment and management are now looked upon as promising alternatives.

A recent call for action by a UN Group of Experts asks governments to "stimulate private sector involvement and investment by using appropriate economic incentives and creating legal and administrative frameworks to promote and protect such investments" (GESAMP 2001). A detailed study on economic tools for MPA management in East Africa in particular, suggests that parks should be made an attractive and accessible investment opportunity by provision of credit and development of private property rights, franchises and concessions, and that the private sector can also be encouraged to make charitable contributions or voluntary donations towards the costs of running marine protected areas, especially where they have a direct stake or interest in conserving marine ecosystems. Such donations can be attracted by a range of mechanisms such as allowing advertising and sponsorship deals, or providing tax relief on contributions (Emerson 1999).

It is also increasingly acknowledged that private operators, particularly in the tourism sector, can provide important services in the establishment and effective management of MPAs or support existing park management agencies for the following reasons:

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Institutional practices have been designed with the assumption that the private sector is the antagonist and procedures and regulations are formulated under the assumption that the private sector is guilty until proven innocent. This approach has resulted in particularly cumbersome regulations. In addition, the controls have given government officials wide discretionary powers which have encouraged corruption. Although taxes have been simplified and lowered, they remain numerous, ambiguous and complex. In Tanzania, officials at one prominent business organization estimate that 80% of all businesses must cheat to survive - and tax liabilities can represent as much as 60% of gross revenue." He concludes that "the combination of the ambiguous environment and high taxes created a hothouse for corruption. Business people need to pay bribes to survive and remain competitive. Not surprisingly, civil servants perceive business people as corrupt, which leads them to erect more controls and more stringent regulatory processes, resulting in even longer delays. In reaction, businesses resort to bribes to accelerate the process. As a result, a vicious cycle of increasing delays (and) corruption is created for formal sector enterprises."

- Marine tourism increases the economic value of coral reefs. This generates income for management, but also feelings of ownership among local people with little previous interest in marine resources, and if properly managed, potential political support for sustainable management and conservation.
- Tourism operators can give important professional and logistical support for monitoring. Dive operators participate in Reef Check exercises around the world and divers' boats boost surveillance and enforcement of park regulations. Good co-operation between MPA management bodies and the private sector could reduce costs of surveillance drastically, e.g. in the case of the Mafia Marine Park in Tanzania that has only one patrol boat for 822 km<sup>2</sup> and is susceptible to dynamite fishing and poaching.
- Tourism operators, fisheries and other users often operate in the same area, compete for uses, and have thus strong incentives for direct negotiations on issues related to user rights, management and eventually conservation on-site.
- Localized private management bodies have a comparative advantage over central authorities and find it easier to deal with local communities for enforcement, training, employment and education, by virtue of their small size and mutual dependence.
- Private management agencies can operate more flexibly and efficiently than government and donor agencies as they are less affected by party politics, and also not bound by restrictive government civil service and budgetary regulations and cumbersome bureaucratic procedures.
- The long-term investment and planning horizon necessary for private investment is similar to that required for resource protection, economic productivity, capacity building and environmental awareness.
- Last but not least, private management has stronger incentives to keep overheads down and generate income than government-controlled and externally funded management bodies.

## What the private sector would need - the more obvious conditions

The most commonly quoted conditions that would encourage private sector involvement and support to MPA management are similar to conditions needed by private investment in general. These are mainly:

- **Tourism potential and access to a particular marine eco-system**

Where marine eco-systems have tourism potential for the dive and snorkel market and are not over-exploited for livelihood by local communities and commercial fisheries, privately managed marine parks are viable and can generate considerably more income than fisheries and other resource extraction. Long-term market prospects should be favourable.

- **Better investment climate and long-term security of tenure**

An attractive investment policy would have to address issues of good governance, security of tenure, contractual and legal framework, financial services, as well as incentives concerning land rent, taxes, fees and licenses. A favourable policy framework is only the start of the process. Constraints created by ambiguous regulations and wide powers of civil servants have to be removed. And last but not least, the investment climate for conservation requires official acknowledgment that making profits from conservation is not morally bad, but a condition of sustainability.

- **Environmental certification**

It is sometimes suggested that tourism operations need to be controlled and regulated to adhere to minimum environmental standards (Colwell 1999). However, this assumes a framework of good governance that is not yet the reality everywhere. A more powerful tool is international environmental certification that has a high marketing value in the tourism source markets. This gives stronger incentives to owners and operators to adopt ecological principles in building designs and recreational

activities, than inspection visits of sometimes rent-seeking government officials. ISO 14001-certification and prestigious awards such as the British Airways Tourism for Tomorrow Award among others provide valuable marketing publicity.

- **International insurance scheme for MPAs proposed to buffer market risks**

The most serious threats to economic sustainability of privately managed conservation projects are their dependence on international tourism for income generation, a market that is sensitive to political turmoil and perceived security and health risks. Such risks could be reduced by an international insurance scheme that buffers privately managed and other sustainable parks against severe income loss from visitor fluctuations.

## **Also urgently needed - a change of paradigms**

In Sub-Saharan Africa, the policy discourse on conservation issues is dominated by international conservation and donor agencies that also provide most of the policy advice, technical assistance and funding. With few exceptions, government-run park management agencies and conservation programs in Sub-Saharan Africa have received generous donor support, continue to depend on such funding and thus have problems with long-term sustainability.

Externally funded technical assistance and grant programs are commonly modeled after park administrations in developed countries. They thus develop relatively sophisticated standards of operations that are unsustainable after the end of foreign assistance, and sometimes tolerate the high overheads of state-run institutions that are impossible for private investors to economically compete with. This situation perpetuates a systematic cycle of non-sustainability in the economic management of natural resources (Cairncross, 1991).

However, more importantly, the investment environment for private involvement in conservation is also affected by an ideological climate among governments and large sections of the donor community that is skeptical of private sector initiatives beyond serving as a provider of funds. Colwell (1999) reflects this skepticism in his assessment of two examples of entrepreneurial MPAs, when stating that such private initiatives are "only appropriate where the government or local community is unable or voluntarily chooses not to exercise its right to manage local marine resources." The reason he gives it that "there is a great potential for abuse of power by a resort or other commercial entity which has profit as its primary motive and does not answer to a public constituency". He also suggests that "the resort's activities, including disposal of sewage and solid waste, coastal clearing and construction, and recreational use of the marine resources, must be subject to scrutiny by a government agency, NGO or other unbiased observer."

It is suggested that this view reflects a Western bias common among donor and conservation agencies that does not take sufficient account of the functioning of the State and the economy in most African countries.<sup>4</sup> In particular:

- There is a somewhat romantic assumption that local communities are inherently better at managing local marine and other resources, and that informal or 'subsistence' fishers have to be treated differently than more formal business operations using marine resources;
- It is also commonly taken for granted that government and donor agencies, NGO representatives and researchers are by definition not stakeholders, but 'unbiased observers' that are answerable to public constituencies;
- The private sector's profit motive is assumed to be incompatible with conservation or good environmental practices, and it is therefore recommended that this sector needs to be controlled and regulated to adhere to certain minimum standards.

These preconceptions are challenged with evidence from Tanzania and elsewhere. It is argued below that economic agents in local communities respond to similar economic motives as the formal private sector and may indeed largely consist of private sector operators who prefer to stay informal to avoid

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<sup>4</sup>For a classic analysis of the functioning of the African State, see Chabal & Daloz (1999)

official and unofficial taxation by officialdom. It is also argued that governments, donor agencies and NGOs are neither unbiased nor always answerable to public constituencies, and that finally, given the right incentives, the private sector may have a strong interest in conservation.

### ***The informal fisheries sector is also profit-oriented***

Traditional resource users may have a close relationship to the natural environment and a sense of balance in their exploitation of these resources. However, with population pressure and access to distant markets, traditional systems of resource use are no longer viable and break down.

In Tanzania, as elsewhere, it can no longer be assumed that traditional fishers or resource users from the informal sector have a greater incentive to protect their resource base than any other resource user.<sup>5</sup> Though fishers along the coast still widely use dugouts and locally made outrigger sail boats and are therefore commonly described as traditional artisanal or 'subsistence' fishers, there is growing evidence that they form part of sometimes far-reaching trade networks that supply both expanding urban markets and distant rural areas. Some urban and rural leaders and business people finance and operate 'dynamite' boats to distant reefs, provide explosives to local fishers and buy their produce (Guard, 1997). Dried sardines (dagaa) from the coast are traded as staple food for the majority of the population and provide the cheapest source of protein to rural areas in the interior of the country, sea cucumbers are exported to Asian markets (Semesi et al., 1998), and lobsters are over-harvested for the growing tourism industry (Bakari & Andersson, 1998). Most of these trade networks belong to the informal economy and may not appear in trade statistics, but form a highly organised part of the private sector nevertheless.

Interestingly, an analysis of fisheries around the El Nido MPA in the Philippines came to similar conclusions. The so-called traditional artisanal fisheries sector described by the Management Plan was found to be "in fact commercial fishing to supply the 15-20 tonnes per month of iced fish exported to Puerto Princessa, Manila and overseas" (Hodgson & Dixon 2000).

Indeed, it would be interesting to analyse the fisheries sector in and around the Mafia Island Marine Park (MIMP) in Tanzania for its real economic significance and scale. At present, Mafia fisheries is also described as predominantly artisanal, traditional and providing for 'subsistence'. There also, the Management Plan assumes that informal resource use and business is by definition sustainable and excludes the local fisheries sector from obligations to an Environmental Impact Assessment that is mandatory for formal sector investment and operations.

### ***Most tourism operators have good economic reasons to support marine conservation***

With the rapid growth of the dive industry, marine tourists are increasingly environmentally aware, demand and acknowledge such commitment, particularly when a country markets itself as a nature destination. When visiting poorly managed MPAs, divers frequently act as 'volunteer wardens' and report to the resort management or dive master what they perceive as infringements of park regulations or evidence of destructive practices. This is a powerful incentive for tourism investors to co-operate with initiatives that improve MPA management.

In Tanzania, for example, tourism operators have taken a pro-active role in coral reef conservation. For decades, the government and the public showed little concern for the rampant dynamite fishing along the coast, until a tourist hotel fearing for the safety of its diving clientele initiated a press campaign in 1997 that was fueled by strongly-worded letters to local newspapers from former guests. As the country's image as an emerging tourist destination was at stake, this for the first time generated enough political will to initiate drastic action. The Navy was summoned and succeeded in reducing dynamite fishing at least along the reefs closer to shore. As a welcome side effect, this also increased political support for donor-funded regional projects working with fishing communities in the Mtwara (Luhikula, 1999) and Tanga regions (Horrill & Makoloweka, 1998).

Similar experiences of pro-active private sector support for conservation were reported from El Nido in the Philippines for example, where the Ten Knots resort supported the developing marine park by

<sup>5</sup>See Gibbon (1996) and Scheinman & Mabrook (1996). Interestingly, a recent study in the Pacific islands came to similar conclusions that "many local communities do not appear to be effective in restricting their own harvesting effort." (World Bank 1999)

helping with enforcement and surveillance against illegal fishing, forest extraction and pollution of the sea water by commercial ships (Hodgson & Dixon 2000).

In Tanzania, marine and dive tourism clearly helped promote greater awareness and appreciation of marine resources that were previously taken for granted and often traditionally believed to be inexhaustible (Scheinman & Mabrook, 1996). The marine tourism market now attracts local investors, potentially increasing political support for reef conservation. While only ten years ago, swimming was not considered a useful skill and urban elites would not be interested in marine sports, attitudes are now beginning to change rapidly with the growing tourism industry.

### ***Government and donor agencies are stakeholders with institutional interests***

It is commonly assumed that government would mediate between competing groups of resource users, mainly between fishers and tourism operators. Generous donor support is given to government-run park authorities to support them in this noble task. However, in highly donor-dependent countries such as Tanzania, various forces within the governmental bureaucracy and associated donor and NGO interests may well prevail over the interests of direct resource users.

In the context of the international aid industry that has developed into what Easterly (2002) aptly described as the "Cartel of Good Intentions", donor agencies are under pressure to increase turnover and to spend allocated budgets within a set time frame. In turn, national government institutions and international and local NGOs compete for these funds to sustain their operations or for direct appropriation.

Such institutional interests create their own dynamics, for example by following ever more cumbersome application formats and adopting the all-pervasive donor rhetoric, by increasing administrative complexity and aiming for ever higher academic standards, in order to justify continued funding. This situation provides few incentives and little room for effective conservation and sustainable resource management on the ground that involves local communities. Conservation professionals working in this institutional environment are often personally committed and feel overburdened with ever more exhausting bureaucratic procedures, but can do little to stem the tide and spend more efforts in support of effective action on the ground.

It is now widely acknowledged that MPAs cannot succeed without incentives going to those stakeholders who suffer losses from their establishment (Emerton 1999). When most donor funds are spent on central government management agencies, there is a very real risk of distorting the incentive structure. Funds are being spent on employing people who have no direct interest in the functioning of the park on the ground, their training, travel, equipment, on endless consultancies and studies with little relevance for implementation and on massive buildings, for example. Very little, if anything, goes to local communities directly affected by the park. Overly generous donor support is often counterproductive to effective and participatory management on the ground.

Valuable lessons learned in the development of the Mafia Marine Park Project (MIMP) in Tanzania may illustrate the dilemmas caused by a distorted incentive structure. Andrews (1998), a former technical advisor to the park, observed that the Act that created the marine park "removed participation from the local community as many of the issues now under the Act, had been previously dealt with through the District Council under the Local Government Act. This new arrangement usurped that authority, added another layer of bureaucracy and failed to integrate the various interests."

While both local communities and tourism operators showed strong interest in the functioning of the park, an impressive bureaucratic superstructure was created with various local agencies and individuals competing for institutional and individual benefits from the generously funded project. Not until 1996 was the Management Plan translated into Swahili, and not until 1997 were local communities shown the zoning plans (Darwall et. al. 1999).

Enormous pressure for funding is still being put on the fledgling and struggling tourist operators, but they are rarely consulted and not informed on the use of the park fees of 10 US\$ per tourist that they collect for the park management. Expectations that tourism revenue would be able to fund park operations and even provide social and economic benefits to the local population did not materialize. Instead, park fees and taxes paid by tourism operations disappear into central coffers while local

people see no link between tourism and its benefits. This situation creates unnecessary conflicts and disillusionments and alienates stakeholders in the area, both fishing villages and tourism operators.

In practice, and contrary to good intentions expressed in policy papers and project documents, central government and donor-funded management bodies have few incentives and mechanisms to involve local communities, and even more so, tourism operators. The main reason for this is that such management bodies are not accountable to local stakeholders, but rather to the same external funding agencies that are under spending pressure to compete for 'good projects'. In such a situation, an 'unholy alliance' may emerge between donors and recipients that tolerates even gross mismanagement of project funds, to the frustration of aid practitioners bogged down by cumbersome paper and office work and not able, or not mandated to assume a more supervisory role. For example, in the case of the Mafia project, there were "no mechanisms for the individual donors to communicate or make funding decisions as a coordinated body. Funding arrangements were independent of each other. This situation was ruthlessly exploited with many elements of the project receiving dual funding with conflicting objectives" (Andrews 1998).

Thus, instead of promoting local and community stakeholders' interests and participation in the sustainable use of their marine resources as intended, the Mafia Island project was perceived by local people as consuming impressive funding with little to show in terms of effective management of the park on the ground, at least during the first years of international support.

### ***NGOs are not always accountable***

For the last decade, donor countries and international agencies increasingly channel support through non-governmental organisations (NGOs), hoping that this would improve performance and impact on the ground. This has led to a mushrooming NGO sector in Tanzania as elsewhere that is marketing itself to funding agencies as an alternative. However, what is often overlooked is that NGOs are not accountable by definition or through the mere act of registration. Public control and political will, appropriate legislation and supervisory bodies are required to ensure that NGOs actually fulfill their mandated work and use their funds effectively. In Tanzania as elsewhere, the lack of public supervision of NGO activities encourages the formation of briefcase organisations. This situation undermines transparency and accountability to the intended beneficiaries. And where, as in Tanzania, the tax legislation provides few incentives for charitable contributions of individuals and business organisations, there is also a risk of NGOs being formed mainly for access to external funding, rather than for stewardship for environmental and community interests.

This situation is not unique to Tanzania. El Nido in the Philippines provides another example where marine conservation has become big business for NGOs. According to Hodgson & Dixon (2000), "a large number of non-governmental organisations have opened project offices in El Nido, and one Dutch aid project alone was reported to be worth US\$ 5 million. It is not immediately obvious how these NGOs and projects have improved the environment."

## **Conclusions**

The predominant donor perception of the private sector as being located outside and antagonistic to a sometimes romanticised 'local community' is not helpful for understanding stakeholder interests in marine eco-system and park management. Though traditional fisheries and the harvesting of reef resources may belong to the informal sector of the economy in many countries, these are still economic activities that are sometimes large-scale and highly commercialised.

Viable partnerships for the management of a particular marine area are more likely when local communities, traditional fishers and tourism operators are acknowledged as belonging to the (formal and informal) private sector that responds to similar economic incentives. Small-scale fishers, shell collectors and seaweed farmers who depend on reef resources for their survival, may have more common interests with local tourism and dive operators than with central government agencies and foreign-funded NGOs.

In order to safeguard the sustainability of their economic activities, tourism operators, fishers and other resource users have a potential interest in coral reef management. Involving them in conservation projects and park management is likely to raise their awareness in this respect.

Government action and donor involvement should be in support of the local agenda and made accountable to local people. Outside support would still be required in certain cases, particularly where threats to coral reefs originate from distant areas, such as logging, siltation and large-scale infrastructure developments.

It is suggested that the international conservation and donor community would improve the impact of their investment in coral reef conservation if project designs focused more on direct resource users in a particular area, who have genuine long-term economic incentives to co-operate. This may include support to private management, particularly where small fully protected MPAs are created. Such small MPAs may become the core of large, multiple use MPAs and free access areas as is now proposed for Chumbe Island in Zanzibar. Properly managed, these have a real chance of winning local support as fish refuges, larval sources and suitable settlement areas for adjacent fishing areas.

Support to such private initiatives may help alleviate the commercial risks of long-term investment in conservation and integrate a wider range of stakeholders in coastal zone management, and thus improve local political support to MPAs. Last but not least, donor support for policy reforms that improve security of tenure and the investment climate in general also encourage private investment in better environmental practices and conservation.

## References

- Andrews, G. (1998), "Mafia Island Marine Park, Tanzania, Implications of Applying a Marine Park Paradigm in a Developing Country", Paper presented at the International Tropical Marine Ecosystem Management Symposium (ITMEMS), Townsville, 23-26 November.
- Ballantine, W.J., (1995) Networks of 'No-Take' Marine Reserves Are Practical and Necessary, In: Shakell, N.L., Willison, J.H.M. (eds.) Marine Protected Areas and Sustainable Fisheries. Science and Management of Protected Areas Association, Wolfville, Nova Scotia, pp.13-20
- Bakari, R. and J. Andersson (1998), "Economic Liberalization and Its Effect on the Exploitation of Crustaceans in Tanzania", AMBIO, Vol.27, No.8.
- Cairncross F. (1991), Costing the Earth: the Challenge for Governments, the Opportunities for Business, Harvard Business School Press, Boston.
- Carter, E., Nyange, O., and Y. Said (1997), "Management Experiences of the Chumbe Reef Sanctuary 1992-1996", Paper presented at the National Coral Reef Conference, Zanzibar, 2-4 December.
- Chabal P. & Daloz J.-P. (1999) Africa Works, Disorder as Political Instrument, Oxford
- Colwell, S., (1999), "Entrepreneurial MPAs: Dive Resorts as Managers of Coral Reef Marine Protected Areas", InterCoast Newsletter, Coastal Resources Center, University of Rhode Island, No.34.
- Darwall, W.R.T., Guard, M. & Andrews, G. (1999), Southern Tanzania, in: Coral Reefs of the Western Indian Ocean, Eds. McClanahan, T. R., Obura, D.O., and Sheppard, C.R.C.
- Dixon, J. and A. and P.B. Sherman (1990), Economics of Protected Areas: A New Look at Benefits and Costs, Island Press, Washington DC.
- Easterly, W. (2002), The Cartel of Good Intentions: Bureaucracy versus Markets in Foreign Aid. Working Paper No.4, Center for Global Development, Wash.
- Emerton, L (1999), Economic Tools for the Management of Marine Protected Areas in Eastern Africa, IUCN Nairobi
- Francis, J., Nilsson A., Waruinge, D. Marine Protected Areas in the Eastern African Region: How Successful Are They? In: Ambio Vol.31, No.7-8, Dec. 2002

GESAMP (2001), A Sea Of Trouble, Reports and Studies 70, IMO-FAO-UNESCO-IOC-WMO-WHO-IAEA-UN-UNEP

Gibbon, Peter (1996), Everything's for sale. CDR Working paper 96.2, Copenhagen

Guard, M. (1997), "Dynamite Fishing in Southern Tanzania", Miombo 17, Wildlife Conserv. Soc. of Tanzania, Dar es Salaam

Hodgson G., Dixon J.A. (2000) El Nido Revisited: Ecotourism, Logging and Fisheries, In: Cesar H.S.J. (ed.), Collected Essays on the Economics of Coral Reefs, CORDIO, SIDA

Horrill C. and S. Makoloweka (1998), "Silencing the Dynamite Fisheries along the Tanga Coast, Tanzania", Paper presented at the ICRI-International Tropical Marine Ecosystems Management Symposium, (ITMEMS) November 23-26, Townsville, Australia.

Luhikula, G. (1999), "Community Participatory Approach Pays Dividends in Fight Against Dynamite Fishing", InterCoast Network Newsletter, Coastal Resources Center, University of Rhode Island, Narragansett, USA, No. 34.

Moffat D., Ngoile, M., Linden, O., and J. Francis (1998), "The Reality of the Stomach: Coastal Management at the Local Level in Eastern Africa", AMBIO, Vol.27, No.8.

Rauth, R. (1997), "Bureaucracy Killing Business in Africa", Financial Times, April 23-29.

Riedmiller, S. (1998), "The Chumbe Island Coral Park Project, Management Experiences Of A Private Marine Conservation Project, Paper presented at the ICRI-International Tropical Marine Ecosystems Management Symposium (ITMEMS), November 23-26, Townsville, Australia

Riedmiller, S. (2000), Private Sector Management of Marine Protected Areas: The Chumbe Island Case, In: Cesar H.S.J. (ed.), Collected Essays on the Economics of Coral Reefs, CORDIO, SIDA

Scheinman, D. & A. Mabrook (1996), "The Traditional Management of Coastal Resources", Tanga Coastal Zone Conservation and Development Programme, Tanga, Tanzania.

Semesi A., Mgaya Y.D., Muroke M.H.S., Frances J., Mtolera M., and G. Msumi (1998), "Coastal Resources Utilization and Conservation Issues in Bagamoyo, Tanzania", AMBIO, Vol.27, No.8.

Sterner, T. and J. Andersson (1998), "Private Protection of the Marine Environment, Tanzania: A Case Study", AMBIO, Vol.27, No.8.

Tobisson E., Andersson J., Ngazi Z., Rydberg L., and U. Cederloef (1998), "Tides, Monsoons and Seabed: Local Knowledge and Practice in Chwaka Bay, Zanzibar", AMBIO, Vol.27, No.8.

Watkins, C.W., Barrett, M., and J.R. Paine (1996), "Private Protected Areas, A Preliminary Study of Private Initiatives to Conserve Biodiversity in Selected African Countries", World Conservation Monitoring Centre (WCMC), Cambridge.

World Bank (1999), "Voices from the Village, A Comparative study of Coastal Resource Management in the Pacific Islands, Summary Report, Pacific Islands Discussion Paper Series No.9A, East Asia and Pacific Region.