

COMMUNITY PARTICIPATION IN THE ESTABLISHMENT AND MANAGEMENT OF MARINE PROTECTED AREAS: A REVIEW OF SELECTED INTERNATIONAL EXPERIENCE

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Conflicts between conservationists and people seeking access to land and natural resources have caused widespread criticism of conservation organizations and their activities throughout the world. Over the past decade, however, there has been recognition that the resources within protected areas often form part of the economic, social and political system of rural societies in the vicinity of the protected area. This has led to the emergence of approaches that aim to involve those that are directly affected in the process of establishing and managing such areas. Key aspects of participatory approaches are: (i) the type of relationship between the conservation agency and the role-players concerned; and (ii) the type of benefits that accrue to local people. A typology of participatory approaches is outlined and, through a literature review, case studies are drawn from a number of countries that have consulted users and adjacent communities on the establishment or management of protected areas.

Conflicts between conservationists and people desperate for access to land and natural resources have caused widespread criticism of conservation organizations and their activities throughout the world. Evictions from land, and restrictions on utilization of natural resources in protected areas, have had a critical impact on the food security and livelihoods of local people and often resulted in cultural, social and economic disintegration (Kamstra 1994).

In developing countries, conservation agencies are faced with a dilemma. Should protected areas be maintained even if such protection results in the imposition of hardship on local communities? Alternatively, should the needs of local people be given priority, even if this is to the detriment of the conservation objectives of the protected area (Glavovic 1996)? If these issues (the establishment and maintenance of protected areas, and the need for rural development adjacent to these areas) are mutually exclusive, the future of protected areas looks bleak. A solution lies in seeking ways of transforming conflict between rural people and conservationists into mutually beneficial relationships.

Over the past decade, conservation organizations have become more socially responsive, recognizing that protected areas cannot be maintained by force indefinitely, and that without the support and involvement of local communities, protected areas have little future. The first attempt to link protected areas with local social and economic development took place in 1979, when the UNESCO Man and Biosphere Programme proposed buffer zones as a component of biosphere reserve models, within which sustainable

use of natural resources would be permitted. In the early 1980s, the World Conservation Strategy emphasized the importance of linking protected area management with the economic activities of local communities. Also in that decade, the World Congress on National Parks called for revenue-sharing, access to natural resources in conservation areas and participation in decision-making. The Brundtland Commission re-emphasized these principles and the Biodiversity Convention has a strong emphasis on promoting sustainable development adjacent to conservation areas (Wells and Brandon 1992).

In keeping with these trends there is a recognition that the resources within protected areas often form part of the economic, social and political system of rural societies in the vicinity. Protected areas are increasingly playing dual roles of being both conservers of biodiversity and catalysts for local development. The realization of the importance of understanding the needs and perspectives of local people has led to the emergence of approaches that aim to involve those directly affected in the process of establishing and managing protected areas.

REASONS FOR ADOPTING PARTICIPATORY APPROACHES

A diverse array of groups is likely to have an interest in, or be affected by, the establishment of a Marine Protected Area (MPA). These include subsistence and commercial fishermen, tour operators, other

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recreational interest groups, researchers and government departments. A MPA will impinge on the interests of these groups in widely different ways, and different people will have varying expectations of a participatory process.

A government agency, usually the initiator of such a process, may be seeking support for, and acceptance of, a marine protected area. Alternatively, the agency may have been pressurized into allowing opportunities for participation in decision-making, through conflicts concerning access to resources within the protected area. In this case, it may be seeking to obtain information on the conflict at hand, to defend or explain its position, or to negotiate a solution.

In contrast, subsistence resource users from the area adjacent to the conservation area may be

- (i) wanting to defend their rights of access to the resources within the MPA;
- (ii) seeking social and economic benefits from the protected area;
- (iii) wanting to participate and ensure transparency in decision-making on issues that impact on their social and economic circumstances.

Commercial fishing and tourism interests are usually concerned with defending access rights.

Meaningful participation in the establishment of protected areas, and in the development and implementation of management plans, ensures that the priorities and needs of these different groups are addressed. Conflict is an inevitable part of this process, and is catalysed by the existence of scarce resources and differing interests and needs of affected groups. Interactive approaches to participation, as described below, emphasize the need for a dynamic partnership, using the capacities and interests of local people and other role-players, complemented by the ability of the national or regional government to provide enabling legislation and administrative assistance.

This approach draws on lessons learned in negotiation theory and practice. For example, it is essential that participants share a commitment to finding mutually acceptable solutions. Cooperative approaches need to be supported, the legitimacy of other participants acknowledged, and the value of diverse opinions recognized (Glavovic 1996). The positive consequences of cooperative conflict-resolution approaches cannot easily be realized where there is animosity and suspicion. Communication between local people, park officials and other relevant parties needs to be improved and a climate of trust established. Conflict around conservation areas involves parties with widely varying backgrounds, including differences in educa-

tion, training, ethnicity, geographic origin and socio-economic status. Conflict resolution is based on a recognition and understanding of these differences, and the implementation of creative ways of overcoming them (Glavovic 1996).

DEFINING PARTICIPATION

Key aspects of participatory approaches are

- (i) the type of relationship between the conservation agency and the role-players concerned;
- (ii) the type of benefits that accrue to local people.

Each of these is elaborated below.

A typology of participatory approaches

The concept of participation in the establishment and management of protected areas is interpreted and practiced in many different ways. Until the 1970s, participation was increasingly seen as a tool for achieving the voluntary submission of people to protected area schemes. Participation was no more than a public relations exercise, in which local people were passive actors (Pimbert and Pretty 1995). During the 1980s, participation became increasingly defined as environmental education, aimed at facilitating understanding of the value of protected areas. In the 1990s, there are two schools of thought:

- (i) participation as a means of achieving externally established goals, by which clear limits are placed on the form and degree of participation; or
- (ii) participation aimed at establishing equitable partnerships, so that stakeholders have equal opportunity to control, manage and benefit from biodiversity.

In the latter case, participation is an active process that enables communities to enhance their well-being, and to gain greater control over their lives and resources (Little 1994). The use of the term should therefore be qualified by reference to the type of participation that is envisaged, as well as its specific application.

Participatory approaches range from methods aimed at obtaining limited input into decision-making (passive participation) to methods aimed at obtaining extensive input into decision-making and control (interactive participation, IIED 1994). The typology is described in Table I. Examples of approaches

Table I: A typology of participatory approaches (from Pimbert and Pretty 1995)

Type of participation	Approach adopted
Passive participation or persuasion	Public involvement techniques are used to change attitudes without raising public expectations of participation in the planning and decision-making process
Participation through consultation	User groups provide input to the government agency on proposals for a conservation area, or on management plans for the area. External agents define the problems and information gathering processes. Such a consultative process does not concede any share in decision-making, and professionals are under no obligation to utilize the information that has been gathered
Participation for material incentives	People participate by contributing resources, for example, labour, in return for food, cash or other material incentives. People have no stake in prolonging the technologies or practices when the incentives come to an end
Functional participation	Participation is seen by external agencies as a means to achieve project goals, such as reducing resistance to the establishment of a park. People may participate by forming groups to meet predetermined objectives related to the project. Such involvement may be interactive and involve shared decision-making, but tends to arise only after major decisions have already been made by external agents
Interactive participation	People participate in joint analysis, development of action plans and formation of local institutions. Participation is seen as a right, not merely as a means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives, structured learning processes and problem-solving approaches. As groups take control of local decisions and determine how available resources are used, so they have a stake in maintaining structures or practices
Self-mobilization	People participate by taking initiatives independently of external institutions

adopted in selected marine protected areas around the world are described later.

The choice of a particular approach may be influenced by a range of factors, including

- (i) existing policy and legislation;
- (ii) the particular objective of the process (e.g. different approaches may be appropriate during the establishment of the conservation area, the formulation of a management plan, or the initiation of a small development project);
- (iii) available resources.

Often there may be an imbalance between the type of relationship possible (within national policy parameters), the type of relationship that interest groups may be striving for, and the type of relationship that is practical (within capacity and budgetary constraints).

Moving beyond common assumptions

Common assumptions often underlie the design of a participatory process. These relate to the definition of the affected community, the nature of the environmental resources, and the relationship between the two (Leach *et al.* 1997). There is a conspicuous absence

of explicit recognition of these assumptions in case studies in the literature on community involvement in MPAs.

THE DEFINITION OF "COMMUNITY"

While definitions vary, approaches commonly focus on the people of a neighbourhood, a particular rural area, or a cultural or ethnic group. Such communities are seen as homogenous, with characteristics that distinguish them from outsiders. There is minimal recognition of the frequent diversity and conflicting interests within such communities. Participatory approaches are often based on the implicit assumption that these ongoing dynamic conflicts can be contained by collective agreement and compliance (Murphree 1994). If "the community" is identified as one of the stakeholders in a conservation project, it must have institutional structures that allow effective interaction with external institutional actors. This requires the term "community" to be more clearly defined as to who the major interest groups are; their current resource-use motives and whether these conflict within their own group or with those of other groups; their activities and how these affect resource use and conservation; and the potential winners and losers of programmes for conservation or for resource use (Little 1994).

CONVERGENCE BETWEEN THE OBJECTIVES OF CONSERVATION AND RURAL DEVELOPMENT

Participatory conservation programmes often assume convergence between the objectives of biodiversity conservation and the development objectives of the rural participants in the programme. Yet, in reality, local and outside views on conservation may be in opposition. Alignment of these views requires joint definition of the potential benefits of participation in a conservation programme, including a realistic assessment of its contribution to rural development, and an understanding of the value of being part of a decision-making process on the management of local natural resources. Mutual exploration of what conservation is about forms a part of this process and contributes to clarity on the trade-offs that may be necessary to facilitate alignment of the different stakeholders' objectives.

THE NATURE OF CONSERVATION PROFESSIONALISM

Where participatory approaches are designed by conservation professionals, there may be assumptions about the nature of the conservation profession. This influences the extent to which space is created for other stakeholders to mould the conservation programme. For example, there may be assumptions that a successful conservation programme requires that priorities be set by the conservation professionals, that decisions be guided by science, that a blueprint approach is necessary for project design and implementation, and that there is a singular, tangible conservation reality. In contrast, a participatory approach seeks to enable local people and professionals to set priorities together, that local perceptions are central to the decision-making process, that project design and implementation are open-ended, iterative and learning processes, and that there are multiple realities that are socially constructed (Pimbert and Pretty 1995).

Examples of participatory approaches in the establishment and management of Marine Protected Areas

Selected examples of approaches taken in the establishment and management of MPAs in Australia, Tanzania, Philippines and Indonesia have been loosely categorized in accordance with the typology of participation contained in Table I.

In Australia, the Marine Parks Authority of the Great Barrier Reef Marine Park (GBRMP) has, until recently, adopted a *consultative* approach, which

offered minimal opportunity for indigenous people to provide information, and no opportunity to participate in decision-making. A decision by the High Court of Australia recognized the existence of Aboriginal "native title" to land and resources in Australia. This decision has forced the authority to adopt a more interactive approach, and recent documents outlining management strategies for the Marine Protected Area emphasize the need for collaborative decision-making arrangements (Smyth 1995).

At the recently proclaimed Mafia Island Park in Tanzania, a *functional* approach has been adopted. Local liaison committees have been set up with pre-determined objectives, which form part of the management of the park. These committees do not have decision-making powers (Andrews 1996).

In the Philippines, an *interactive* approach has been adopted, where a local and representative committee has been established to work with government structures in facilitating the involvement of local people in the establishment and management of a protected area. In this instance, there is also a partnership in enforcing regulations for the protected area. Tanzania provides a second example of interactive participation, in which local resource users and the local authority have identified the need for a mechanism to give protection status to certain areas, as part of a broader coastal management plan (Christie and White 1994).

Finally, the Maluku Islands, Indonesia, provide an example of a transition from *self mobilization* to an interactive approach. Until the 1970s, resource management in those islands was a consequence of traditional and religious practices. These practices were specific to particular areas of the island and centred around the tribal chieftain. With commercialization of the resource, tradition was eroded and later revived by government agencies, which recognized the potential for harnessing local customs and providing legal and institutional support to create a local-level interactive management system (Zerner 1994).

CONSULTATION: WITH INDIGENOUS PEOPLES IN THE GREAT BARRIER REEF MARINE PARK

Indigenous people of Australia, coastal Aboriginals and Torres Strait Islanders, have cultural, economic and legal interests in the management of the Great Barrier Reef Marine Park (GBRMP). Cultural interests include the protection of sacred sites and the ability to conduct ceremonies. Economic interests include subsistence hunting and fishing and commercial opportunities such as mariculture and commercial lobster fishing. Legal interests include a demand for legal recognition of customary ownership of land and sea

(Smyth 1995).

Until recently, opportunities for the involvement of indigenous people in the management of the GBRMP included

- (i) membership of the GBRMP Consultative Committee;
- (ii) a public participation process for the development of zoning plans;
- (iii) participation in workshops, research projects and community liaison meetings.

A number of problems with this process have been identified. First, it took 13 years to appoint the first Aboriginal person to the Consultative Committee. Until then, the interests of indigenous people were represented by the administrative head of a government department (Smyth 1995). Second, the style, pace and format of the planning process has largely resulted in the exclusion of indigenous people, because of a language barrier and because people do not have regular access to newspapers that carry invitations to participate in the planning process. Third, although Aboriginals have participated in research projects, they have had minimal involvement in the design of such projects, and in decisions about the use of the results.

A decision by the high court of Australia in 1992 gave recognition to Aboriginal "native title" to land in Australia. The judgement also affected rights to marine resources and has had implications for agencies such as the Marine Park Authority. A recently formulated strategic plan for the GBRMP outlines specific objectives with respect to Aboriginal and Islander interests (Smyth 1995). Most important of these is the objective to establish cooperative management arrangements between Aboriginals and Torres Strait Islanders and stakeholder agencies in the area. Strategies to achieve this include

- (i) establishing a legislative basis for cooperative management arrangements;
- (ii) establishing cooperative management arrangements for specific areas;
- (iii) providing for Aboriginal and Torres Strait Islander representation on advisory committees and management boards.

FUNCTIONAL PARTICIPATION: MAFIA ISLAND, TANZANIA

The Government of Tanzania passed its Marine Parks and Reserves Act in 1994. The area around Mafia Island was proposed as Tanzania's first marine park and was officially gazetted in April 1995. The

fisheries around the island provide much of the area's subsistence protein as well as a substantial income for coastal communities. However, the productivity of Mafia's marine and coastal habitats is threatened by dynamite fishing, increased use of seine nets, coral mining, anchor damage, and pollution from terrestrial runoff. Discussions with community representatives and other marine resource users were initiated in 1991 to

- (i) reach agreement on the precise location of the protected area, as well as a plan for its legal establishment;
- (ii) obtain input on a management structure and strategy;
- (iii) develop a management approach.

Following this preliminary phase of interest group participation, a multi-stakeholder institutional structure was established in terms of the Marine Parks and Reserves Act. This structure includes a Park Advisory Committee, which is representative of all interest groups, including national and regional government, local communities, private business, the scientific community and non-government conservation organizations. This committee is responsible for overseeing management of the park. Local communities participate in the management process through Village Liaison Committees, which are responsible for

- (i) maintaining and managing equipment allocated to each village;
- (ii) keeping records of meetings and information relevant to each village;
- (iii) providing information of resource issues and aspects associated with access to resources.

These committees have no decision-making powers (Andrews 1996).

INTERACTIVE PARTICIPATION

Tanga, Tanzania – As part of the coastal management programme in the Tanga region, participatory appraisals were conducted in nine coastal villages to identify priority issues and actions required to attain sustainable use of the area's coastal resources. A programme of action was developed jointly by relevant government departments and representative local village committees. Two of the villages identified the need for the establishment of a marine protected area around nearby reefs. A programme of action to achieve this has been formulated, allocating tasks to village committees and relevant government departments. The village committees are currently negotiating

with fishermen from other nearby villages, who use the reef, in order to obtain support for the proclamation of a marine protected area (Makoloweka *et al.* 1996).

San Salvador Island, Philippines – In 1988, the Marine Conservation Project for San Salvador Island was initiated by the Silliman University. The primary goal was to organize a community-based marine resource management scheme for the island community. During the first year of the project, a community fieldworker facilitated discussions with island residents to identify the major problems associated with declining fish catches. A locally based and representative Environmental Management Committee (EMC) was established to involve villagers in a series of educational programmes and workshops on the establishment of a marine sanctuary. The EMC obtained support for this process from the local authority, which organized two public meetings at which a resolution was passed for the establishment of a marine sanctuary, declared in terms of a municipal ordinance. Enforcement of the ordinance is undertaken jointly by residents and the municipal government. When a violator or trespasser is spotted, a member of the Local Council is notified (Christie and White 1994).

SELF MOBILIZATION: TRADITIONAL FISHERIES MANAGEMENT APPROACHES IN THE MALUKU ISLANDS, INDONESIA

While there are few examples of marine protected areas that were initiated and are managed by a group of people, independent of government, there are useful examples of community-evolved and community-based fishery management systems. In certain regions throughout the Indonesian Archipelago, there are institutions governing the use of marine resources, which have their origin in well-defined cultural traditions.

The system is anchored within local customary laws, centred around the tribal chieftain, who is the owner of the marine resources in community waters. Historically, the boundaries of these protected areas, known as "sasi", were marked with structures such as a pole crowned with a coconut and palm leaves, prominent rocks or other promontories. Rituals, invoking sacred spirits to guard the off-limit area are performed.

These systems remained unchanged until the 1970s, when there was a rise in commercial markets for certain marine species. Subsistence harvesting turned into large-scale commercial harvesting and the "sasi" became less effective. Government officials recognized that, with institutional and legal support, the "sasi" provided a means of controlling resource

depletion. In the new rules, purposes of the "sasi" were articulated as sustainable resource management and equitable distribution of economic benefits. Community practices laden with spiritual connotation have been recast as community-based resource management institutions (Zerner 1994).

OPTIMIZING THE SOCIO-ECONOMIC BENEFITS OF PROTECTED AREAS

Critical to the success of resolving conflicts between local people and conservation agencies about the establishment and management of protected areas is the generation of social and economic benefits for local people. Projects that aim at establishing positive linkages between protected areas and adjacent communities are referred to in the literature as Integrated Conservation-Development Projects (ICDPs, Wells and Brandon 1992). These projects attempt to ensure the conservation of biological diversity by reconciling the management of protected areas with the social and economic needs of local people. One of the most challenging tasks that these projects face is the promotion of development activities that not only improve local living standards, but also lead to strengthened management of protected areas (Little 1994).

A range of strategies have been attempted, often in combination, including:

- (i) providing opportunities for sustainable resource-use;
- (ii) providing compensation or substitution to local people for lost access to resources;
- (iii) facilitating local social and economic development.

Providing opportunities for resource use within a protected area

This often requires zoning for multiple use of natural resources within, and adjacent to, the protected area. Following the guidelines of Kelleher and Kenchington (1992), Laffoley (1995) suggested that the objectives of a zoning scheme should reflect the management objectives for the marine protected area, and should include the following:

- (i) to provide protection for critical or representative habitats, ecosystems and ecological processes;
- (ii) to separate conflicting human activities;
- (iii) to protect the natural and or cultural qualities of

- the MPA while allowing a spectrum of reasonable human use;
- (iv) to reserve suitable areas for particular human uses, while minimizing the effects of those uses on the MPA;
 - (v) to preserve some areas of the MPA in their natural state, undisturbed by humans, except for the purposes of scientific research or education.

Critical to the success of any zoning scheme is an effective and culturally appropriate process of interest-group participation, through which user groups take part in discussions on the design of the zoning scheme. Laffoley (1995) examined the reasons for the apparent success of zoning schemes in MPAs in Australia and New Zealand, and defined certain guiding principles. One of these emphasizes the importance of achieving a balance between a "top-down" legal approach, by the responsible agency, and a "bottom-up" community involvement approach. It is suggested that the ideal is to strive for "conservation through collaboration, achieved through local discussions" (Laffoley 1995).

Compensation and substitution strategies

The immediate objective of the compensation/substitution approach is to reduce the economic burden on those people who would otherwise have few alternative means of livelihood beyond continued exploitation of the resources of the protected area. The compensation/substitution approach attempts to do one of the following:

- (i) compensate people for the economic losses that they have suffered as a result of the establishment of a protected area;
- (ii) provide substitutes for specific resources to which access has been denied;
- (iii) provide alternative sources of income to replace those no longer available owing to the establishment of the reserve (Brandon and Wells 1992).

Compensation usually takes the form of cash payments, goods or services, provided in exchange for agreements by local people to relinquish their former rights of access and to respect the conservation goals of the protected area. Substitutes can be targeted on specific resource uses, for example, an alternative source of protein may be introduced to substitute for the loss of opportunities for hunting or fishing within a protected area.

There are numerous problems associated with cash benefits. Questions such as who administers it, who

is entitled to the benefits, and how it should be used must be clarified with members of the community concerned. The last question is a particular source of contention in poverty – stricken areas where the need for short-term individual household benefits outweighs the potential long-term benefits that can be achieved from using the money to fund development projects in the district. If the benefits are to exceed the costs of loss of access to the resource, it is important to understand how communities define the costs and how these relate to the benefits. Can financial benefits compensate for the loss of access to a resource that contributes to a livelihood?

Local social and economic development

While the prime objective of conservation agencies is not to promote social and economic development in rural areas, they can play an important facilitative role in this regard, through increasing incomes, reducing costs or providing new ways of earning a living. This might include the provision of direct employment, low-interest loans, improved access to markets, promotion of non-rural enterprises, community social services, and skills training (Brandon and Wells 1992). For example, conservation agencies can assist in facilitating the establishment of tourism projects that benefit local communities. Difficulties such as lack of capital, infrastructure, management experience, and knowledge of and access to tourism markets need to be overcome in such initiatives. The private sector, in the form of tour operators, has emerged as a potential partner for the development of various forms of joint ventures. This approach offers a means of bridging the capacity gap.

SUMMARY

In this paper an attempt has been made to review approaches used in a number of countries to involve local communities and other interest groups in the establishment and management of marine protected areas. The point of departure is that participatory approaches vary, and range from obtaining limited input, to obtaining extensive involvement in the decision-making process. The choice of an approach may be influenced by a range of factors, including existing policies, objectives of the process and available resources.

Common assumptions often underlie the design of participatory processes. These relate to the definition of the affected community, the nature of the environ-

mental resources, and the relationship between the two. There is a conspicuous absence of explicit recognition of these assumptions in case studies in the literature on community involvement in Marine Protected Areas. While there is no shortage of literature emphasizing the importance of stakeholder participation, there are few practical examples that provide a detailed and critical account of the approach taken, and the resulting successes and failures. Critical evaluation is needed to ensure that the participation approach is genuinely improving matters and not simply being driven by a shift in world conscience. Carefully evaluated case studies will be significant to an emerging paradigm shift on the nature and operation of both terrestrial and marine conservation. They could also provide valuable assistance to policy-makers and practitioners in South Africa, who are currently grappling with the implications of democratization of all aspects of society, including management of natural resources.

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