

MOVING FORWARD

Watershed management on Pohnpei originated and evolved to adapt to a conflict situation. Though the level of the conflict has diminished from the days when state agency personnel were chased from villages with machetes and guns, conflict remains today. As revealed through the challenges section in the previous chapter, the conflict revolves around differing ideas on what natural resource management means, determining the need for it, how to conduct it, how to apply it to what areas, and who has the knowledge, authority, and legitimacy to conduct it. Specifically, the five main challenges concern: enforcement; building capacity in both communities and the Division of Forestry to co-manage; developing political will for participatory management and commitment to a collaborative approach; increasing communication between groups and improving overall coordination; and mitigating effects of a shift to a cash economy.

This chapter attempts to address some of these issues by reviewing other cases, particularly ones that involve multiple parties in which communities factor as prominent stakeholders, to learn how others have tried to deal with similar challenges. Though Pohnpei's history and experience with watershed management is unique, specific elements of the issues facing efficacy are shared by others. Based on the lessons of these cases, studies and reports, overall recommendations tailored to the watershed program will be presented for consideration in the following concluding chapter.⁶⁹ Through these

⁶⁹ The author's assumption is that the approach to effective watershed management continues to remain, as set out by the 1987 law, creation of a Watershed Forest Reserve with zoning of certain areas for farming and other activities.

comparisons, it is hoped that the watershed program will be informed of approaches and strategies that will help it to overcome current challenges to effectively move forward.

Learning from Others: A Review of Case Studies

Though different in objectives and scope (e.g. park protection, integrated conservation and development projects, private reserves, development projects), formation (e.g. started by foreign donors/organizations, grass roots, government), and situation (e.g. history of the country, socio-economic conditions, cultural influences), what was common to the cases, studies and reports reviewed was that all involved some component of engaging local communities to either assist or directly co-manage the natural resources (e.g. forests, marine, wildlife) targeted for either conservation or sustainable use purposes. These projects also share the common themes of involving multiple parties (e.g. communities, traditional leaders, local governments, the state, NGOs, international financial institutions, etc.) and addressing multiple issues (e.g. natural resource management, socio-economic concerns, democratic governance). As such, related issues of state commitment to participatory management, state and community relationship and mistrust, enforcement, and institutional/organizational development were common themes that emerged. Indeed, a review of community-based conservation in Africa reveals the same challenges faced by the Pohnpei watershed program: 1) central governments that are unwilling to collaboratively share management responsibility; 2) difficulty of local participation and time commitments in execution; 3) problems related to identifying appropriate community members for involvement; 4) ineffective project design leading to more environmental problems; 5) constant

monitoring and evaluation that is required; and 6) local situations that cannot escape being affected by external factors such as national or global politics and economics (Hackel, 1999).⁷⁰

The objectives in reviewing these cases, studies and reports are to: 1) provide the watershed program with lessons and strategies others have used to address similar challenges; 2) reveal some of the consequences and pitfalls of different approaches; and 3) illustrate how other projects have used strategies similar to those used in Pohnpei to overcome challenges (these examples support Pohnpei's own experiences). Though the case studies do not address all of the challenges facing the watershed program, they do reflect some of the major issues facing efficacy and may prompt reflection on reasons why the program is experiencing such challenges.

Enforcement

In analyzing integrated conservation and development projects (ICDP), one of the factors affecting project performance was the existence of enforcement and regulatory components that support project objectives (Brandon and Wells, 1992). As this finding illustrates, enforcement is an integral component to managing natural resources, whether for conservation or sustainable use.

In most of the case studies concerning enforcement, communities were involved with enforcement to some extent, whether it was conducting actual enforcement

⁷⁰ Given the breadth of the case studies reviewed, several different terminologies emerge when describing community participation and involvement. The terms are community-based natural resource management (CBNRM), community conservation (CC), community-based organizations (CBO), community wildlife management (CWM), and community-based management (CBM). The reader should note that all terminology should be viewed as interchangeable in the sense that they all refer to natural resource management approaches in which some level of community participation and involvement is a component.

themselves (as guards and patrolmen) or managing the enforcement through village councils which set regulations on access. Some of the benefits identified with involving the community in enforcement were: lower government enforcement costs, fewer opportunities for corruption, more communication between the community and lower government, and greater community commitment to its management plan (Gambill, 1999). In addition, enforcement was seen as beneficial because, aside from deterring illegal activities, it could also provide an incentive for violators to work with communities and government to resolve conflicts over resource use (Lewis, 1993). The selection from a range of different enforcement strategies often depended on whether the root causes of conflict over the natural resource had been properly addressed, with clear sets of rules and regulations that were understood by all parties governing management of the resource.

The following cases highlight different enforcement strategies and subsequent lessons affecting efficacy. The main lessons from the case studies revolve around enforcement systems themselves and the people actually engaged in enforcement.

Effective enforcement systems appear to exhibit the five following properties:

- 1) They are clearly understood and known to all;
- 2) Are consistent in their operations;
- 3) Possess credibility and legitimacy;
- 4) Provide ownership, particularly when involving communities (ownership was often linked to using existing processes or institutions for enforcement);
and
- 5) Provide appropriate incentives to support enforcement.

The studies also suggest that the people engaged in actual enforcement (e.g. community guards, park guards, patrolmen, etc.) should be 1) properly equipped and well-trained; and 2) deemed credible and legitimate by communities.

Case Studies Concerning Enforcement Systems and Institutions

- Tubbataha Reefs National Marine Park, Philippines: In Tubbataha Reefs National Marine Park in the Philippines, the government, local governments and politicians, and a non-profit organization evicted a private corporation that had been illegally operating a seaweed farm in the park. This situation had come about because the company was able to take advantage of the fact that there were no park wardens stationed at the park due to its remote location. It also received a permit for the activity from the local government, revealing no coordination and understanding of park management between the national and local governments. ***This case study highlights the importance of having an enforcement system in place that is understood by all involved with park management and clearly made known to encroachers.***
- Sagarmatha National Park, Nepal: In Sagarmatha National Park in Nepal, traditional enforcement systems of the forest that had been used by the Sherpas, an ethnic group living in the park before it was established, were taken over by outside enforcers (e.g. government officials and wardens). Increased deforestation within the park resulted as resentment by the Sherpas grew. Consequently, the government returned enforcement privileges to the Sherpa community. The success of the traditional enforcement system can be linked to the facts that forest guards were appointed on a regional basis among the villagers creating a shared sense of responsibility; they had the power to enforce community rules of resource use and could fine violators; they were respected by the community members; and, they took the responsibility very seriously (Lewis, 1993). ***This case study highlights the importance of using existing institutions that provide ownership and legitimacy.***
- Marine Parks, Indonesia: In marine parks in Indonesia, the use of traditional taboos and beliefs among coastal settlements assists enforcement. For example, the Bajau communities do not fish in what they consider sacred areas (which happen to coincide with the park boundaries) where people are believed to disappear. Nor do they harvest black coral because they believe it to cause bodily harm. What also helps with reducing encroachment into the park is the fact that Bajau communities are allocated fishing grounds with clear boundaries and regulatory authority of the areas resting with village leaders. As such, if outsiders want to fish in these fishing grounds, they must first receive permission from the village leader (Djoharni, 1996). ***Similar to the Nepal case study, this case echoes the importance of using existing institutions that provide ownership through participatory decision-making and involvement. In addition, communities***

around the park were provided with resources they could use in lieu of the ones banned from extraction within the park. This last point addresses the issue of developing the appropriate incentives to support enforcement.

- Redistribution of fines to communities: In another example, enforcement was set up in such a way that fines were given back to communities as incentives for enforcement thereby discouraging bribes or non-reporting of violations as a result of community peer pressure and social relations. ***Similarly, this case study highlights the importance of using the appropriate incentives for enforcement.***

<i>Case Studies Involving People Engaged in Enforcement</i>

- Living in a Finite Environment Program, Namibia: The Living in a Finite Environment initiative in Namibia hired wildlife game guards from the communities called Community Game Guards. They were appointed by the communities and were accountable to them through traditional leaders, who would take any disciplinary actions if necessary. These guards were not strictly enforcement, but also worked with the community to mitigate destructive activities of wildlife and educating communities on project activities. This strategy was seen as successful by the project because the guards were trusted by the villagers (unlike the government) and the guards were committed to effectively managing the resources. The result was a decrease in poaching activities and an increase in wildlife populations (Ntiamo-Baidu et. al, 2000). ***Similar to the Nepal case, this case study shows the importance of credibility and legitimacy of guards in conducting effective enforcement.***
- Forests, Philippines: In the Philippines, one project instituted voluntary forest guards from the community. However, the program did not function effectively for the following reasons: the guards did not have sufficient support (e.g. training) or financial resources (e.g. equipment) from the municipal governments to carry out their responsibilities, the groups failed to acquire an identity (e.g. no uniforms or IDs) that helped communities identify them and allow the guards a sense of professionalism in carrying out their responsibilities, they suffered from lack of security in that if they were injured no compensation for themselves or their families was available, the guards lacked organization and clear objectives and therefore often became isolated units that led to lost motivation (Garrett, 2002). ***This case study shows that it is critical to have implementation support for enforcement both through capacity training and equipment. The system of enforcement must be supported by structural elements.***

In addition to the lessons outlined in these case studies, in a review of project design issues for managing common resources, author Paul Seabright found that the key to enforcement (and sustainable use) is that the natural resource area must be important to

the communities and they must believe that the future matters enough to outweigh the immediate benefits of present activities. He also found that it helped if violators were susceptible to peer pressure and the opinions of others within the community. Enforcement and community involvement can also establish a history of cooperation that makes it difficult for violators to overcome (Seabright, 1993).

Building Capacity in Both Communities and the Division of Forestry to Co-manage

Community participation means involving people in the decisions and institutions that affect their lives. The community is seen as a unit of solution, capable of taking collective action (Checkoway, 1995). Though this definition is taken from the field of social work, it aptly describes how community involvement in natural resource management is viewed in many case studies. However, community involvement has experienced numerous challenges and uneven successes. Part of the reason for these uneven successes can be understood by reflecting on some of the assumptions of community-based natural resource management (CBNRM) approaches.

In a review of community wildlife management in Africa, Alexander Songorwa outlined four assumptions underlying adoption of the community-based wildlife management approach: 1) national governments are willing to devolve ownership of and management for wildlife to communities; 2) communities are interested in managing wildlife; 3) communities have the capacity for such management; and 4) wildlife conservation and economic development are compatible (Songorwa, 2000). There is also the assumption that communities know what the problems are, have the solutions, and are ready to function accordingly as a unit and are not limited by external factors in taking

such action. These inaccurate assumptions have led to many projects facing similar challenges as the Pohnpei watershed program.

One case study in particular echoes many of the same strategies and resulting challenges experienced by the Pohnpei watershed management program, particularly with involvement of traditional leaders, introduction of new institutions, quality of community participation, and exclusion of communities in decision-making roles.

Developed by the government, Zambia's Administrative Management Design for Game Management Areas (ADMADE) created wildlife management sub-authorities reflecting existing chiefdoms in which the chief served as chair. These units monitored and addressed wildlife problems at the local level and implemented wildlife management plans in conjunction with community development projects. However, problems soon arose with this arrangement, despite following traditional institutions. ADMADE discovered that chiefs were not joining the program in order to become co-managers in wildlife and facilitate local participation; instead, they were more interested in the power and economic benefits received through the program as it fell to them to administer the community's revenues from wildlife off-takes into conservation and development projects. As such, chiefs began employing their own supporters and concentrating projects in their areas, thereby creating resentment among other villages. Village perception about the benefits of this program were also affected by the fact that the sub-authority units had no decision-making authority over hunting regulations, quotas, licenses, or fees (particularly safari concession fees where companies hunted on their lands). The villages also received no information about the revenue their areas produced;

revenues that went into the overall revolving fund that was distributed back out to different villages for projects.

ADMADE also created a wildlife scout program in which villagers participated. However, without effective unit leaders, commitment often declined and led to behaviors such as poaching and stealing. These scouts were also seen as challenging traditional authority institutions (e.g. elders) within villages. As such, authors of this case study recommended: ADMADE recognize a vast majority of residents received little benefits from the program; not all residents responded to purely economic incentives; different values are placed on development projects by individuals; rewards must be connected to individual actions; and rural residents must be considered as equal stakeholders with decision-making authority over management of the resources (Gibson and Marks, 1995). This case study confirms the same problems experienced by the watershed management program as a result of traditional chiefs being involved, communities not having decision-making authority over distribution of funds (ownership), instituting a new system (wildlife scout program) that competed with existing institutions (traditional chiefs), and not fitting the appropriate incentives to encourage support for the program.

The cases and studies introduced in this section of *building capacity in both communities and the Division of Forestry to co-manage* will center on: 1) challenges affecting quality participation with communities; 2) lessons from successful community-based initiatives; 3) development of capacity-building and training; and 4) general lessons concerning community-based approaches. Though no specific case studies were linked with building capacity for the Division of Forestry, many of the lessons and issues discussed in the community capacity building sections similarly apply to the DoF.

Similar to the ADMADE case study, the following studies go on to highlight challenges similar to those experienced by the watershed management program. The challenges specifically revolve around community involvement and seem to result from:

- 1) Lack of the appropriate incentives;
 - 2) Lack of ownership in the process and project (leading to credibility and legitimacy issues);
 - 3) Negative past experiences with the project (e.g. unmet expectations); and
 - 4) Lack of supportive environment to allow for participation (e.g. participation is voluntary, transit time and difficulties for participants are taken into consideration, etc.).
- Rural development study and participation: Though set in a development context, community participation in the field of rural development has also experienced similar issues with community participation, “local elites can often ‘capture’ more complex organizations and use them to promote their own ends” (Cohen and Uphoff 1980, 224). The same study goes on to describe other factors that affect quality and ability of participation: 1) direct participation versus representative participation (direct participation has greater impact on building individual capacity); 2) time required for participation; 3) intensity of participation linked to the various ranges of potential activities that benefit from involvement; 4) initiative from the grass-roots versus outside or national centers; and 5) voluntary or coerced involvement. The authors also conclude (as part of emerging generalizations of participation in rural development projects) that participation is not a panacea in the sense that just introducing participation into a project does not automatically meet objectives and produce results. Projects must be careful not to confuse more participation as better since meaningful participation depends on the quality and circumstances in which it occurs. ***This study echoes concerns of local elites co-opting processes for personal gain. This study also notes that quality participation and engagement should be voluntary, provide the appropriate incentives, create a supportive environment for participation, and result from needs directly voiced by those involved.***
 - Community-based natural resource management study, Botswana: A similar point was made during an analysis of CBNRM in Botswana, “participation may not be a ‘good thing,’ that local people may not want more participation or may not have the time to participate” (Twyman 2000, 331). However, the author goes on to say that apathy in participation is often due to the fact that projects do not address local priorities, local livelihood dynamics, or concerns and past experiences,

thereby making communities feel that the project is not truly theirs to begin with leaving no incentive to participate. ***This study notes that problems affecting quality participation can be linked to lack of ownership and missing the appropriate incentives for involvement.***

- Community-based wildlife management, Tanzania: Another analysis of community-based wildlife management in Tanzania found that the lack or loss of interest by communities in such approaches were linked to raised expectations that had not been met, unequal distribution of benefits from the program, lack of trust, and mismanagement and corruption at community-level institutions (Songorwa, 1999). ***This study echoes the Botswana CBNRM study but adds that participation can be affected by failure to meet expectations (e.g. past experiences), credibility and legitimacy issues, and lack of equally distributed benefits.***
- A study of integrated conservation and development projects: In analyzing ICDP projects and project design issues, authors Katrina Brandon and Michael Wells noted several issues when dealing with communities. Mainly, projects must define appropriate links and incentives to the overall objective of the project. The authors noted that in several instances, projects focused on activities departing from project objectives due to needs defined by communities that were wholly out of project boundaries or chose approaches that were unsustainable and did not reflect value of future benefits (Brandon and Wells, 1992). ***This study notes that efficacy of projects relied on the appropriate fit of incentives to project objectives. The study notes the potential pitfall of projects losing sight of their objectives by becoming overwhelmed by communities' needs.***

<i>Cases and Studies Concerning Successes with Community-Based Approaches</i>

Despite these issues, community participation has also experienced successes. The following cases and studies highlight the strategies used by different projects of community participation and the reasons behind their achievements. The case studies address success in two ways: lessons concerning communities themselves and organizational and process attributes affecting efficacy of community-based approaches.

The community attributes to success seem to be tied to:

- 1) Possessing ownership and decision-making capacities (thereby instilling a sense of responsibility for the natural resource resulting in quality participation);
- 2) Projects that originate directly from communities (these projects suffered less

from community capacity issues such as motivating participation, attracting dedicated individuals, and sustainability because communities had ownership over the problems and incentives for success); and

- 3) Management is seen as credible and legitimate.

Attributes concerning organizational and process issues involve:

- 1) Government support and commitment to community participation;
- 2) Clear rules, regulations, and authority concerning the natural resource;
- 3) Presence of the appropriate incentives;
- 4) Credible and accountable process that is transparent and makes available information for decision-making as well as provides flexibility in responding to situations; and
- 5) Capacity building and training is provided.

In addition, the nature of the relationship between states and communities also seemed to play a key role. When the relationship was less top-down, but more equal and partnership-like, projects were usually more successful.

<i>Community Attributes for Success</i>

- **Village forest management, Tanzania:** After a very similar experience to Pohnpei of driving back government officials attempting to demarcate forest reserves, villagers in Tanzania demarcated their own village forest management areas out of a proposed national forest reserve. They instituted forest patrolmen, outlined rigorous forest use regulations, access controls, and forest management by-laws. The reason behind why the approach worked in Tanzania was that villagers felt the implications of being given such a role and responsibility for managing the forest areas. One village leader noted that they could no longer blame the government if the forests were destroyed. Another key factor was the support and leadership of the village leaders. Additionally, the villagers were not treated by the government as resource users to be regulated, but as resource managers (Wily and Dewees, 2001). ***This case study notes successful CBNRM linked to decision-making (and thereby ownership of both the process and project) by communities. It also highlights the importance of the nature of relationships between the state and communities (e.g. less top-down, but equal and partnership-like).***

- Forest committees in Thailand: Similarly in Thailand, sub-district and village committees (with chiefs as heads and members selected by chiefs) were created in order to address forest maintenance and protection (Asian NGO Coalition, 1991). ***Similarly, this case study shows communities given a role in decision-making over the resource leading to more effective management.***

- Marine sanctuary, Philippines and Forest management, Thailand: In the Philippines where a community established a marine sanctuary, success was attributed to the fact that the problem, needs, and solutions were wholly identified by the communities, and governments and NGOs were only brought on board later as technical support. A similar situation was reported in Thailand when community management in forestry issues was addressed by villages through formation of committees which effectively facilitated community consensus and collective action toward forest protection (Asian NGO Coalition, 1991). ***The success of these case studies was linked to the initiative originating from the community itself, thereby providing credibility and legitimacy as well as incentives to support the effort.***

- Community-based forestry program, Philippines: Incentives and motivations can be encouraged by involving communities in monitoring efforts. As was seen in a CBNRM project in the Philippines, villagers walked the forest to monitor the state of the forests managed under a community-based forestry program. Monitoring resource use taught communities the consequences of how they use their resources and helped them to determine management efforts which in turn reinforced commitment to sustainable forest management (Gambill, 1999). ***This case study shows that providing the appropriate incentive leads to support for activities. The incentives in this case study were: the opportunity to learn, be involved with the project through monitoring, and making decisions based on collected information (also addresses ownership).***

- Wildlife resource management, Africa: If the community chooses a committee to act as intermediary between itself and other parties (e.g. government and NGOs), these committees must be able to “identify, articulate, and defend the communities’ interests in providing input into the decision-making process” as well as relay back to the community the management decisions that were made (Kiss 1990, 180). ***This study highlights the need for community committees to possess capacity to represent community needs in a legitimate and accountable manner.***

<i>Organizational and Process Attributes for Success</i>
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- A study of community-based initiatives, South Asia: A paper presented at the Second World Conservation Congress of International Union for Conservation of Nature (IUCN) looked at community-based initiatives throughout South Asia in order to draw lessons about successes of such projects. The paper found several factors that led to developing effective community-based management. They

were: transparent and equitable decision-making both within the communities and between other organizations they associated with (e.g. NGOS, state); decision-making could occur when information was shared and decision-makers were well-informed; the role of outsiders (e.g. state, donors, NGOs) must be associated with villages on equal terms by respecting different levels of capacity and information; community-based initiatives must be supported by legal authority through laws and state policies; inequalities within communities must be recognized and addressed so that empowerment does not become concentrated in the hands of the few; sustainability of efforts should be done through monitoring activities and creating internal funding not dependent on external donors to sustain initiatives; and the state was seen as supporter and guide to these initiatives. The same paper also found that in order to support community-based initiatives, policies and legal measures needed to facilitate empowerment of local communities for management and participation as well as enforcement and regulatory authority (Kothari, 2000). ***This study highlights the critical role of process when involving collaboration with communities. Issues such as transparency, availability of information for informed decision-making, legitimacy and accountability measures based in law, government support of the CBNRM approach, and recognition of the appropriate incentives were seen as crucial.***

- **World Bank report on forest management:** A World Bank publication found the following factors to be critical in the success of participation in forest and conservation management: government commitment to broad stakeholder participation in project goal setting and implementation; decentralization of authority from state to local levels (with clarity of authority and responsibilities); alignment of costs and responsibilities for each stakeholder to rights and benefits; and development of local capacity for sustainability of projects (Banerjee et al, 1995). ***Similar to the IUCN paper, this report also echoes the importance of the appropriate incentives, government commitment to community participation (including decision-making), and capacity-building for sustainability.***
- **Forest conservation, Indonesia:** Other successful community-based projects reveal that successes are linked to the size (small) of communities, the existence of clear rules and regulations regarding resource use, effective governance over areas, and legal authority over tenure of the area and regulatory enforcement capacity (Momberg et. al, 2000). ***This study also addresses institutional attributes such as clarity of rules and regulations as well as authority over the natural resource area and capacity for enforcement as elements of successful CBNRM.***
- **Community-based organizations, Botswana and Mali:** Mike McGahuey of USAID Africa Bureau outlined the effectiveness of community-based organizations in Botswana and Mali as based on the following: democratically elected representatives; leadership was held accountable to membership; internal rules of conduct as by product of negotiated agreements within the membership existed; members received basic business management training; and transparency measures were adopted (McGahuey, 2002). ***This study focuses on having***

legitimate and accountable representatives, existence of clear rules of conduct by participating groups, transparency, and capacity training as keys to success.

- Melanesia and sustainable development: Traditional organizations and institution should not be formalized in the context of codification under law for it robs such systems of their flexibility and therefore efficacy (Baines, 1989). *The importance of keeping flexibility of traditional systems to allow for adaptation to situations without mandating the process through detailed legislation dictating each step is highlighted in this case.*

<i>Cases and Studies Concerning Community Capacity Issues</i>

The following reports, studies, and cases outline specific strategies as well as lessons concerning community capacity building issues for individuals as well as traditional organizations and institutions. The main points concerning effective capacity development are:

- 1) The need for capacity training originating from both the community and traditional organizations and therefore seen as legitimate (community wants it; they are ready for it);
 - 2) Communities and organizations should have the opportunity to test new skills; and
 - 3) The capacity training is targeted at the right level (e.g. individual, village, municipal, etc.).
- Two general studies on working with traditional peoples world-wide: One way to address community capacity is to insure that villages have opportunities to share their experiences with one another. This will accomplish several things: by communities learning from each other, models of effective strategies/structures are more easily accepted and adopted by other communities because they are seen as credible sources for such information and can relate to each other better (as opposed to the state or NGOs); such exchanges will build confidence among community members regarding their work; it also sustains awareness raising and understanding of issues; and finally information access and flow is supported. Similarly, capacity building efforts must: 1) ask if the traditional organizations and people are appropriate in taking on new capacity roles; 2) if capacity needs are identified by the communities themselves or by other, outside entities (relates to issues of ownership and motivating incentives for involvement); 3) insure that capacity building measures have the opportunity to be utilized and false expectations are not created; and 4) start small to build confidence, support, and

experience in these new roles and responsibilities (Oviedo et. al, 2000). Such sharing between villages can also serve as catalysts of scaling up CBNRM from the village level to larger municipal levels (Singh et. al, 2000). ***This study cites capacity transfer between peers as a critical strategy for developing capacity within communities. It also highlights process issues such as assessing appropriate fit of capacity needs and providing opportunities to practice newly developed skills as affecting efficacy of capacity building.***

- **A study on community involvement and forest conservation:** Developing capacity with leaders is crucial. Effective leadership skills consist of group organization skills, the conducting of meetings, problem identification and problem solving skills, planning skills, team building, and communication skills. Useful training methods are method demonstrations, results demonstration, group discussions and practice, study tours, case studies, role playing, apprenticeships, and games (French and Geocolea, 1986). ***This study highlights the critical role leaders play in effective management and the types of skills necessary for leadership. Most of the capacity items identified organizational, analytical, and human interaction skills.***
- **World Wildlife Fund report on working with traditional peoples:** With regard to capacity building of traditional organizations and institutions, World Wildlife Fund recommends in its report on indigenous and traditional peoples: 1) ensure such organizations see the relevance for capacity building; 2) organizations, rather than individuals, are the focus of such efforts, and 3) provide opportunities to test and use newly acquired skills (Oviedo et. al, 2000). ***This study also echoes the point that capacity identified for development must be legitimate in the eyes of the organization, are focused at the organizational level (versus individual), and provide opportunities to test new capacities gained.***
- **Lake Mbuoro National Park, Uganda:** Even if traditional organizations may not be applicable, melding of both western approaches with traditional organizations can occur. In the case of community conservation in Lake Mbuoro National Park in Uganda, Park Management Advisory Committees were created that followed community designated political units called parishes. The choice to institute management at the parish level was made based on concerns of the committees being co-opted by local politicians at the village level. However, this decision also had a drawback in that parish level committees also suffer institutional weakness because they are not as close to villages as village level institutions. One other issue that has proven problematic for efficacy of these committees is the uncertainty many members felt about their roles (Hulme and Infield, 2001). ***This case shows that capacity not only deals with developing new skills, but also relates to organizational issues such as clarity of roles and working at the right level (e.g. village, municipal, state).***

Though capacity building is an integral part of community-based initiatives, it must also be noted that there are certain situations in which capacity-building may not be appropriate or viable. In the Kajiado district of Kenya, traditional institutions are being disrupted by wealth differentiations and are no longer based on kin relationships (Woodhouse, 1997). This situation highlights limits to capacity building of traditional organizations. Such institutions may be realistically unable to deal with outside pressures and external forces.

General Lessons Concerning Community-Based Approaches

The following cases and studies, which also confirm some of the points already mentioned in previous examples, also highlight general lessons learned by projects when involving communities in natural resource management. In particular, they stress these three realities about engaging in community-based approaches:

- 1) Community-based approaches are long processes;
 - 2) Communities are not the sole solution if problems arise from outside it; and
 - 3) Identifying influences behind incentives and motivations for conservation behavior is critical.
- Community-based eco-tourism, Papua New Guinea: Project managers of a community-based eco-tourism initiative in Papua New Guinea learned several lessons as they conceptualized and implemented their project. They learned that it takes time to get to know the community (for them 3 years) and for the community to get to know you; they did not verify if the community was interested or even ready for a conservation and development project; they raised expectations by coming in with funding, supplies and their positions as project officers; they learned that making everyone happy was not possible; the interest and capacity of the community to develop such a project is critical; and cultivating the right people for the job was important (Salafsky, 1999). ***This case highlights some of the realities of implementing community-based approaches, such as the long process, not raising expectations, insuring the project is wanted by the community, and that satisfying all members was not possible.***

- A study on collaborative coral reef management: Though communities have the ability and power to address natural resource management problems, community-based management cannot solve problems that originate outside of communities (e.g. external economic forces). This conclusion was reached as part of the lessons learned conducted of community-based management of coral reef projects (White et al, 1994). As such, government and NGO involvement is necessary to assist communities in mitigating these effects. It was also found that physical destruction of resources were easier to address through community-based approaches as communities could directly experience these problems and see it for themselves. It was also noted that communities not dependent on the natural resources would not respond to community-based management approaches. ***This study highlights the fact that collaboration with other entities (e.g. NGOs, government, etc.) is critical when communities are addressing problems that originate from outside it. Also, community-based approaches only work when communities directly rely on the natural resource.***
- A study of communities and conservation cultures: This study found that conservation behaviors are primarily motivated by self-interest, which in turn is affected by religious and ethical imperatives (primary), direct and immediate financial returns (secondary), availability of natural resources, provision of ecological services, fulfillment of aesthetic and recreational needs, availability of resources to meet future needs, regulation and enforcement by external agencies, and ecological security in relation to national and global policies (Singh, 2000). ***This study highlights the need to critically understand what influences incentives and motivations driving conservation behaviors.***

Improving the Division of Forestry's Capacity

Capacity building applies not just to communities, but to state agencies as well.

This need for improved capacity of state agencies was a common theme in many of the case studies. For example, as noted for participatory conservation planning in Madagascar, “for a collaborative multi-institution approach to work, particularly with new emphasis on forests outside of parks, institution-strengthening is essential. Human resources management, staffing, and the technical capacity of DEF [forestry department] and regional agencies must be examined and improved systematically” (Hannah, 1998). Authors Andrew Venter and Charles Breen also note that one of the key factors for the success of integrating protected areas into local systems is “the development of capacity

of the protected area staff and other local natural resource management stakeholders to plan, implement, monitor, and evaluate joint venture development opportunities” (Venter and Breen 1998, 813).

Indeed, a review of community wildlife management programs in Africa revealed efforts suffering from deficits on the part of state agencies such as “lack of motivated staff...unsatisfactory links to government structures and support, failure to adopt intended participatory approach, and inability to meet the basic needs of the communities and raise interest among community members” (Songorwa 2000, 639). In a report on park management and people, the authors point out that “most agencies lack equipment and the most basic technical expertise. Field staff are often poorly paid, ill-equipped, ill-trained...these constraints ensure that most park management agencies lack the inclination or capacity to respond constructively to local people-park issues” (Wells et. al 1992, 49). In the case of Pohnpei, this lack of capacity lead to what James Manor calls “decentralization by default,” in which decentralization occurs because government institutions prove ineffective at managing so that other entities (e.g. communities, NGOs) step in to take over (Manor, 1999).

As the examples above illustrate, lack of capacity on the part of state agencies has serious implications for the success of collaborative projects. Unfortunately, most of the cases reviewed offered very general recommendations such as improving capacity or providing training to state agency personnel. In order to address these issues however, organizational culture, limited budgets, and inflexible policies must be addressed (and change supported) by public officials higher up than the administrative system. These individuals must also be able to identify sources of information and capacity training

needs as well as locate funding for such initiatives. Capacity building is particularly important in the case of participatory management since state agencies must prepare to take on new roles and responsibilities as co-managers or advisers. Additionally, authors Hulme and Murphree also found that it is critical for managers of community-based approaches to have the opportunity, through networks or other forums, to share ideas and experiences in order to develop confidence, gain encouragement, and reflect on efforts. In terms of developing capacity to improve relations between communities and the DoF, one of the recommendations out of a study of community management in forests was for the government to have a coordinating office that would serve as a liaison between the forestry department and communities (Asian NGO Coalition, 1991). In these ways, collaborative initiatives may be able to assist state agencies with such needs. Some of the recommendations concerning community capacity building can equally be applied to state agencies as well.

Developing Political Will for Participatory Management and Commitment to a Collaborative Approach

There exist numerous examples around the world where the state assumed management (sometimes forcibly) over natural resources from communities or local governments. Such cases are particularly prevalent in formerly colonized areas of the world (e.g. South and Southeast Asia, South America, Sub-Saharan Africa). Often, the state assumed regulatory control of such resources in the belief that it would be better managers, either by protecting the natural resource for the benefit of all citizens or by more efficiently developing these resources for economic growth of the country. States also believed that their scientific capacities and trained personnel lent them toward better

management of areas. However, what often occurred as a result of state intervention over natural resource management was conflict with people that increased destruction of these areas and natural resources (Dauvergne, 1998, Fox, 1993, Potter, 1993). The reason behind this increase in destruction is that community access to these resources was denied or opened to broad public access thereby de-linking motivations of communities to sustainably manage and care for these areas. In addition, states were not immune themselves to pressures of economic growth and the interests of businesses, which, in the case of Indonesia, led to state forests being more severely threatened by logging than when the forests were under the control of villagers (Peluso, 1992).

Such a legacy of state control has led to the state implementing management structures not tailored to specific areas or issues as well as an attitude by state agency personnel that such areas must be protected *from* communities, not *by* communities. Such attitudes pose problems when joint management and decision-making with communities is considered as alternative systems, as often occurs in community-based natural resource management. In “Evaluating Comprehensive Community Initiatives: A View from History,” author Alice O’Connor similarly notes “the difficulty of achieving...institutional reform” as a consistent challenge of community initiatives (O’Connor, 1999). Reasons behind government reluctance to commit to a shared authority approach with communities for wildlife management in Africa are similarly laid out as: 1) wildlife is seen as a national heritage that should be centrally managed to benefit all; 2) fear of losing bureaucratic power; and 3) views toward community participation as threatening to government authority and economically damaging for the country (Songorwa, 2000).

However, support by the government (whether at the state or municipal level) is a critical factor for moving community-based natural resource management forward and is a consistent theme in many cases. Political will (defined as state willingness and commitment, via key leaders and within organizations, to engage in collaborative approaches with communities to meaningfully involve them in management of natural resources through joint management or shared decision-making) is critical because it also affects the viability of sustaining collaborative initiatives with communities. As was noted in an analysis of CBNRM in Namibia, “the length of time it has taken for the government to effect policy and legislative reform from the time when this was first discussed with pilot communities has led to individuals losing faith that any change would really occur, undermining the momentum of conservancy formation” (Jones, 1998). Similarly, a factor related to the failure of community conservation approaches in Africa is when conservation agencies set unrealistic limits on the extent to which they will share their powers (Adams and Hulme, 2001). In looking at integrated conservation and development projects and necessary preconditions for their effectiveness, author Michael Wells noted that legislation supporting such initiatives was critical (Wells et. al, 1992). In looking at governance issues in Kenya, author Philip Woodhouse argues that without political will for sharing authority at the state (e.g. center) level, no amount of work conducted at the local level to develop capacity for shared authority will lead to such a power-sharing structure, “Any redistributive goals of devolution of control of natural resource management must be contingent on the political nature of the central state. Reform at local level cannot therefore be a substitute for a progressive political agenda at the center” (Woodhouse 1997, 546).⁷¹

⁷¹ The terms *devolution* and *decentralization* (appearing later in this section) should be read as

The following cases and studies reveal: 1) how some states demonstrated commitment to participatory management with communities; 2) benefits to the state for adopting participatory management approaches; and 3) key factors for successful participatory management.

Cases Featuring How the State Demonstrated Political Will and Commitment for Participatory Management and Collaborative Approaches

The following cases outline how governments supported shared management authority with communities. Specific methods utilized were legislation adopting traditional management systems, legislation giving communities decision-making authority to designate and manage conservation areas, and legislation authorizing village councils to manage forest areas. The overall lesson tying all three cases studies was government support of shared authority with communities through legislation. Legislation exemplifies genuine government commitment to a collaborative approach with communities and also holds the state accountable and legitimizes the participatory management process. Legislation also acknowledges communities as critical partners and provides them with incentives to manage areas as a result of ownership through the decision-making process. (This lesson provides support for efforts by the Pohnpei watershed management program to lobby Senators and the Governor to amend the rules and regulations of the 1987 law to include joint management and decision-making authority with communities).

participatory management, in which management authority and decision-making are shared with other parties. Communities in particular should be given meaningful involvement in management of natural resources they are affected by. When seen in text, decentralization and devolution should not be viewed, as is normally the case, as the state government transferring all of its management responsibilities to communities or to another party/organization. Therefore, the objective of decentralization and devolution, as used in this analysis, is developing effective management (not the whole transfer of authority from the state to other institutions) via participatory management systems.

- Mollusk conservation, Indonesia: Faced with unsustainable harvesting of mollusks in Indonesia, the government legislatively adopted *sasi*, a traditional resource management system which had successfully regulated access to and harvest of mollusks in the Moluccas, through changes in its legislation and natural resource management policies. This adoption provided communities with incentives to sustainably manage mollusk populations despite commercial pressures (Zerner, 1998). ***This case shows how government supported community involvement in managing resources through legislative adoption of a traditional management system.***

- Communal conservancy areas, Namibia: Policy and legislative frameworks for creating conservation areas in Namibia is community-based and flexible enough to adapt to local situations. Under legislation, communities can decide for themselves if they want to adopt a conservancy approach for their area; communal area residents can define ‘community’ for themselves; the legislation does not dictate who should represent a community on committees; and communities decide for themselves how the income generated from wildlife and tourism should be used (however, such flexibility does have its drawbacks in that existing tensions within communities between different groups and even traditional leaders may create more conflict as communities attempt to decide such issues for themselves). The issue of co-option by local elites was addressed by not having specific positions designated to traditional chiefs on the management committees. These committees were elected positions. (Jones, 1998). ***This case study again notes community decision-making authority housed in legislation designating conservancy areas.***

- Village forest councils, India: An amendment to the Indian Forest Act of 1924 established village forest councils. These local forest councils had elected members who supervised the management of forests and were paid through collections from villages for access to the resource. Part of these funds also paid for a watchman to enforce regulations and sustainable harvesting (Gadgil and Iyer, 1989). ***This case study shows legislation identifying a community institution authorized for management of the natural resource.***

Studies Outlining State Benefits of Participatory Management and Building Understanding of the Need for Participatory Management

One way to cultivate political will to support participatory management and build understanding for its need is to outline the benefits such an approach could bring to the state. The following two studies mainly highlight:

- 1) Improved relations with communities and sustainability of initiatives; and
- 2) Comparative advantage of delivering services and fulfilling responsibilities.

- A study on the political economy of democratic decentralization: Author James Manor, who analyzed the political economy of democratic decentralization, discusses the many advantages decentralization can bring: increasing participation and involvement in activities; improving the speed and quality of government response to community needs, increasing the information flow between the government and communities, and increasing sustainability of projects (Manor, 1999).⁷² ***This study notes decentralization supporting quality participation, a more responsive government and better relationship with communities, and sustainability of initiatives.***

- A study of the role of municipal governments, Central America: This study describes the comparative advantages municipal governments have over state governments when dealing with certain issues. Though the context is more development and government services oriented, many points still apply to the conservation context. In analyzing the reconstruction and transformation of municipal governments in Central America, author Mark Gallagher noted the following comparative advantages municipalities have over central governments: local governments, due to their proximity to local situations and electorates, are better situated to more effectively execute programs; as a result, municipalities are more effective at mobilizing communities and increasing participation; and proximity also breeds greater transparency of municipal activities. Gallagher does mention however that not all municipalities are equal and as such, the advantages listed may not be true across the board (Gallagher, 1999). ***This case study highlights the importance of analyzing comparative advantages of different parties and organizations for shared management authority.***

<i>Studies Highlighting Key Factors Influencing Effective Participatory Management</i>
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The following studies feature key factors influencing successful participatory management efforts. They mainly involve:

- 1) Allowing adequate time for transfer of authority;
- 2) Development of capacity to take on new roles and responsibilities;
- 3) Existence of accountability measures (thereby instilling trust in the organizations and decentralization efforts); and
- 4) Recognizing hazards of decentralization to counter negative outcomes.

⁷² Manor also outlines situations in which decentralization has little promise and should not be considered: reducing overall government expenditures, performing tasks that are merely delegated (without authority) by the central government, promoting planning from below (often problematic because of administrative capacity deficits), and promoting community participation development (usually because communities distrust government initiatives and decentralization creates authorities above the community levels which have differing needs).

- A study of decentralization cases, Africa: Decentralization must also occur over a staggered time period to allow municipal governments as well as communities time to develop capacity and experience in taking on these new roles and responsibilities. If decentralization occurs too quickly or abruptly without such preparations the success of the project will be affected (Kiss, 1990). This sentiment is also shared by authors David Hulme and Marshal Murphree who analyzed community conservation in Africa, “local institutions have to develop their managerial capacities and so it is best to plan for a sequenced build-up of responsibilities in line with the development of their capacity” (Hulme and Murphree 2001, 294). They go on to state, “devolution needs to focus on creating ‘nested sets’ of institutions - at different levels of scales and sometimes involving federations of local organizations-rather than an all-powerful authority” (Hulme and Murphree 2001, 294). ***This case study noted the critical role time and capacity building play in successful transfer of authority for participatory management.***
- A study on the political economy of democratic decentralization: Four factors noted by Manor as critical to successful decentralization efforts are: 1) systems/institutions must have sufficient power to exercise influence within the political system and over project activities; 2) they must have appropriate funding to function; 3) they have administrative capacity to undertake activities; and 4) they have accountability measures to both communities and the government (Manor, 1999). ***Similar to the previous study, this study also notes allowing for adequate time and capacity (including decision-making authority) for effective decentralization. The existence of accountability measures to communities and government was also cited.***
- A report on empowering civil society to monitor the environment: A World Bank report noted that local institutions are most effective when they have the trust of the communities they purportedly represent, are deeply committed to their constituents, have sound experience related to functional roles and responsibilities, are willing to let communities decide issues, and possess managerial as well as institutional capacity (Ariasingam, 1999). ***This study notes decentralization will not be successful if the institution receiving the decentralization efforts is not representative, accountable, or have the trust of those it serves.***
- A study on governance and local environmental management, Africa: Ultimately, efficacy of institutions rests on whether or not different users will be able to agree on a set of rules to govern use over the resource. However, institutions must also have: 1) clear boundaries of membership to the group; 2) clear boundaries for the resource area; 3) effective and transparent monitoring; 4) shared information flow between user groups; 5) homogeneity and small number of user groups; and 6) homogeneity in user group preferences as well as endowments such as wealth and assets (Woodhouse, 1997). ***This study notes that efficacy of local institutions***

relies on capacity to manage the area and representative groups that have commonality.

- A study of CBNRMs and local institutions: In another study looking at CBNRMs and local institutions, the disadvantage of focusing CBNRM in local governments was seen as their overall weakness compared to the central government with regards to limited revenues, staff, expertise, and legal authority. As such, efforts to manage natural resources may succumb to abuse and outside pressures such as business interests and local elites (Uphoff, 1998). Another potential danger is if decentralization occurs without being tied to accountability mechanisms. There is a danger that decentralization increases pressure on natural resource extraction in order to generate income for municipal needs. ***This study highlights the need to consider potential pitfalls of decentralization (e.g. limited staff, expertise, revenue creating vulnerability to outside pressure and abuse) in order to avert negative outcomes.***

Despite the many advantages of participatory management, very few projects have actually attained true co-management in which communities have joint responsibilities over management and are decision-makers over the natural resource. At a conference looking at the histories and politics of community-based natural resource management, it was found that CBNRM was often one in which communities were sources of labor rather than equal partners determining management strategies and structures. Such a model was often driven by the need to cost-save and originated from international agencies and multilateral financial institutions or national governments (Tsing et al, 1999). In another analysis of CBNRM where governments involved communities through public meetings, workshops, committee elections and field trips at the Okwa Wildlife Management Area in Botswana, it was shown that “although an element of choice was implied in the projects being presented to the communities, it became clear that only certain avenues were supported by the government and these were the ones most likely to succeed” (Twyman 2000, 328). Still other cases translated

participation as communities merely receiving benefits of the conservation program while governments or NGOs maintained control of management (Kiss, 1990).

Increasing Communication Between Groups and Improving Overall Coordination

In looking at integrated conservation and development projects and preconditions necessary for their effectiveness, author Michael Wells noted that realistic institutional arrangement for project management is critical (Wells et. al, 1992). Author Alice O'Connor similarly noted that community-based initiatives often suffer from a lack of “genuine integration among the individual components that make up community-based initiatives—making the whole more than a sum of its parts” (O'Connor, 1999). Given the multiple parties involved and multiple strategies used that often characterize collaborative initiatives, many cases often developed a coordinating organization or committee to manage these issues. These coordinating entities not only assisted with actual implementation of project activities, they also benefited projects by serving as a forum in which all involved could share ideas with one another, build relationships, support motivation, build confidence, address conflict management, and keep misconceptions and misperceptions from hindering project momentum.

This last point concerning the implications of misperceptions on project success is illustrated by a case study of participatory management in St. Lucia for harvesting of sea urchins. Though there existed a co-management agreement between the Department of Fisheries and harvesters, interviews conducted by the author of the case study revealed that perceptions of how well the co-management agreements were being conducted differed significantly (note that though a co-management agreement existed, there was no

on-going committee involving all the parties to monitor implementation and provide an opportunity for parties to interact). The Fisheries department believed they had “advanced along the road of participatory management compared to the dominant top-down approach...[while] the divers on the other hand do not perceive themselves as sufficiently empowered, nor their occupation as valued as it should be [despite the co-management agreement]” (Warner, 1997). This difference in perception has led to ineffective monitoring by divers for illegal harvests.

Having such a coordinating body would also avoid the pitfall of creating too many new institutions that could negatively affect community involvement. An example is community wildlife management programs in Africa where attempts to share authority with communities have created additional layers of bureaucracy that are beyond the ability of communities to manage and do not serve their interests (Songorwa, 2000).

A coordinating body is also critical in keeping projects focused, moving forward and sustainable. The environmental management committee created for a marine sanctuary in the Philippines was key to holding the initiative together because it focused activities and allowed parties to stay independent of outside entities such as NGOs or governments. For conservation of coral reefs and fisheries in St. Lucia, various resource users mobilized and organized to create an association to more effectively address issues affecting the reefs thereby increasing responsible reef management among users. Prior to the creation of this association, issues were dealt with by the government in an ad-hoc manner with parties often competing against one another at cross-purposes and to the detriment of the resource.

A coordinating body can also reduce the lag-time between updating working plans for a project, often a problem that creates disincentive for all parties to sustain participation (Shen and Contreras-Hermosilla, 1995). The gap, and the subsequent problems, that often occur between theoretical arrangement for natural resource management and actual implementation can be more readily addressed by having such a coordinating body on hand.

Studies, Reports, and Cases Highlighting Key Factors to Consider When Designing and Structuring Coordinating Institutions and Collaborative Alliances

When considering the design and structure of coordinating institutions and collaborative alliances, the following examples provide criteria and lessons for consideration. The summary of key characteristics of an effective coordinating body and collaborative alliances include existence of:

- 1) Structural elements (e.g. dedicated people that effectively represent constituents, understanding and trust between parties, standardized operating procedures with clear rules and understanding of shared goals, credible process, and clear authority over management); and
 - 2) Performance elements (e.g. information collection and sharing for quality decision-making, management of incentives and benefits, continual training for capacity development, and continuous feedback and flexibility to practice adaptive management to changing situations).
- **Studies on effective alliances:** According to a report done on effective alliances in conservation, a coordinating body should be simple, have clear goals at the start, have parties play appropriate roles according to their comparative advantages, and practice active balancing and management of benefits and costs of such an arrangement. Additional principals for effective alliances are allowance of decision-making at appropriate levels, securing strong leadership, strengthening management capacity, and being flexible and adaptable to changing circumstances in the project (Margoulis et. al, 2000). Institutions must also have clearly defined roles in order to be effective (Salafsky et al, 1999). ***These reports highlight the need for clarity of goals and party roles, managing incentives,***

consideration of appropriate levels of decision-making, and capacity in the form of flexibility and good leadership.

- A study on weak institutions and conservation of tropical biodiversity: Another analysis defines the following criteria as necessary for building an institutional structure or organization when faced with a dearth of ineffective institutions (at the community and state government levels): 1) have the authority and willingness to restrict access and use; 2) offers incentives to use resources sustainably; 3) have the capacity to monitor; 4) and possess managerial flexibility to address changes in conditions through decisions on rules of access and incentives (Barrett et. al, 2001). ***This study notes that the organizational institution must have the authority and capacity to manage. Similar to the previous example, flexibility for adaptive management and managing incentives was also mentioned.***
- Chesapeake Bay Commission, the U.S.: Several lessons were learned about design of such coordinating bodies by the Chesapeake Bay Commission, an advisory committee to implement bay-wide regional management policies. The group eventually disbanded because members of the groups represented their organizational interests rather than expertise, therefore discussions failed to go beyond how to proceed with management. Also, there were problems with collection and quality of information as lag time between reports on interstate fisheries issues affected group commitment and confidence about the quality of the recommendations they would put forth. Finally, the group lacked clear goals and objectives as well as no motivation for developing implementation strategies as they were only an advisory group with no authority to put forth any management plans formulated (Buck, 1989). ***This case outlines the need for coordinating bodies to rise beyond organizational interests (e.g. positional stances), collect high quality information for decision-making, have authority to influence management (e.g. decision-making), and possess clear shared goals.***
- Phuket Coral Protection Strategy, Thailand: One of the lessons learned by the Phuket Coral Protection Strategy in Thailand was that coordination between public and private sectors (and between national and local levels of government) was critical and that focusing on tangible efforts in the beginning was necessary for relationships to succeed (White et al, 1994). ***This case highlights the need for continuous coordination between all parties. Initial efforts were successful due to a focus on tangible benefits for all parties.***
- Lessons in collaboration, the U.S.: With regard to process, authors Julia Wondolleck and Steven Yaffee outline the following guiding principles for effective collaborative resource management: the process should be credible to those involved, informed to assist with decision-making, efficient to avoid frustrations and loss of motivation, compelling to all parties, accountable to those within and without the collaborative initiative, and adaptive (Wondolleck and

Yaffee, 2000). *This study notes the critical role process plays in influencing effective collaboration.*

- The role of individuals and representatives: It will be critical for a coordinating body to have dedicated and dynamic individuals involved as this is often cited as a key factor in maintaining viability (Kiss, 1990, Wondolleck and Yaffee, 2000). Also, the participants in a coordinating body or collaborative institution must be able to effectively convey the reasons behind management decisions to their constituents (Kiss, 1990). *Involvement of dedicated individuals that effectively represent constituents is key according to these studies.*
- Lessons in collaboration, the U.S.: In a review of over 200 collaborative initiatives in the U.S., authors Julia Wondolleck and Steven Yaffee noted collaboration is less successful if the following occurs: unfamiliarity with process management; lack of process and interpersonal relationship skills; and not managing the effects of outside events and activities to the collaborative and representative organizations. Keys to overcoming barriers to collaboration were: allowing for a long time-frame for iterative decision-making; creating a process that develops cooperation based on reciprocity and long-term relationship building; building a shared vision and clear, common goals; having rules to govern interactive behaviors; and building understanding and trust among parties (Wondolleck and Yaffee, 2000). *This study notes that collaborative approaches rely on knowledge relating to process management and interpersonal skills, managing affects of outside events, taking a long-term view in developing shared objectives and relationships, and building trust and understanding among parties.*

Part of improving overall coordination also involves practicing adaptive management whereby projects continually monitor project activities regarding effectiveness as well as revisit assumptions that led to selection of strategies. Adaptive management allows for the collection of information necessary for participants to make strategic decisions concerning management of the project, ultimately affecting efficacy (Salafsky et al, 1999). For example, managers must continuously monitor the incentives and pressures that may affect party involvement and behaviors. Examples of factors influencing behaviors can be socio-cultural, resource access, skills, options available, laws, values, policies, economics, social norms, knowledge and gender (Byers, 2000).

Some organizational and management issues to be aware of when conducting monitoring and evaluation (M/E) are pointed out by a study of comparative M/E efforts in Southeast Asia. They are:

- Project managers are often overburdened with information overload;
- Inter-departmental coordination in multi-agency projects is problematic and could benefit from having one coordinating agency;
- M/E information is not used toward addressing problems or changing project strategies (related to adaptive management is lack of decision-making or support to make such changes);
- M/E is not institutionalized and therefore suffers from inadequate implementation and organization (thereby affecting efficacy of information collected);
- M/E suffers from inadequately trained staff, budget and transport facilities as well as computer capabilities;
- M/E suffers from truthful reporting of results by projects for fear of losing support and future funding.

The same report goes on to recommend that when designing M/E, projects should consider 1) what should be measured; 2) for whom it should be measured; 3) why it should be measured; and 4) how it should be measured (Khan, 1990).

Mitigating Effects of a Shift to a Cash Economy

Pressures imposed by outside interests have an enormous impact on conservation and sustainable management of natural resources. An example from Indonesia highlights this point directly. Efforts to conserve Gaharu, a valuable wood, in the Kayan Mentarang National Park in East Kalimantan face pressures from encroachment by villagers (often young men not familiar with traditional sustainable collection techniques). These villagers are organized and paid by companies for collection of such wood (these villagers are also often in debt to these companies which provide loans to purchase western goods so that villagers have no other choice but to continue harvesting Gaharu in order to earn the income to pay back such loans) (Momberg et. al, 2000).

In an effort to combat some of these economic forces and outside influences, conservation efforts have historically moved from straight protectionist measures (e.g. parks) to sustainable resource use approaches (e.g. integrated conservation and development). However, ICDPs have had an uneven success rate at mitigating effects of a shift to cash economies. Uneven success is most often the case because projects cannot generate enough financial benefits to be equitably distributed among communities, thereby increasing tensions within and misconceptions about projects and the perceived benefits delivered by a conservation project (Gillingham, 1999). Aside from ICDPs, none of the case studies reviewed had other recommendations for how projects might deal with challenges of a cash economy. Indeed, one criticism of the CBNRM approach is that projects require people maintain a traditional lifestyle despite the economic development and influences that may make such a scenario impossible. As such, CBNRMs may not provide communities with the flexibility to adapt to these new circumstances because the end goal is conservation of a certain area or natural resource (Hackel, 1999).

However, one way to mitigate outside influences on traditional systems is educating those involved of the ways in which such systems work in the hopes of creating adaptive processes. According to author G.B.K. Baines, traditional resource management systems in the South Pacific are unlikely to survive under the forces of economic development without the support and intervention of government. The large value in the increase in access to these resources is the challenge. Baines recommends increasing the understanding of various entities, (e.g. government, development planners, international economic-assistance institutions), of the nature of traditional resource-

management systems and how to work with the processes of decision-making within these institutions (e.g. consensus-based, slow in nature). Just as outside entities must be educated on traditional resource systems, traditional resource managers must also become better informed on how to interact with such outside entities and the resulting implications as well as possible benefits of such associations (Baines, 1989).