



USAID/UCC FISHERIES AND COASTAL MANAGEMENT CAPACITY BUILDING SUPPORT PROJECT



LESSONS ON BEST PRACTICES OF COMMUNITY-BASED MANAGEMENT ACTIVITIES IN OTHER PARTS OF AFRICA August 2015

TECHNICAL REPORT

DEPARTMENT OF FISHERIES AND AQUATIC SCIENCES UNIVERSITY OF CAPE COAST



This publication is available electronically at the following websites:

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Citation:

Department of Fisheries and Aquatic Sciences (2016). The USAID/UCC Fisheries and Coastal Management Capacity Building Support Project. Lessons on best community-based management activities in other parts of Africa. University of Cape Coast, Cape Coast, Cape Coast, 14 pp.

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Cover Photo: Sandy beach

USAID/UCC Fisheries and Coastal Management Capacity Building Support Project

In support of the Government of Ghana's (GoG) initiatives on food security, the United States Government (USG) through the United States Agency for International Development (USAID) is supporting a five-year capacity building programme for fisheries and coastal management in Ghana. The objective of the project is to strengthen capacity for sustainable marine fisheries and coastal resources management through increased use of science and applied research for poverty alleviation, regulatory compliance and law enforcement. The project contributes to GoG's overall grand fisheries and coastal development programme and USAID's Feed the Future (FtF) Initiative, the USG's led global hunger and food security project designed to enhance economic growth in beneficiary countries. In this context, and as part of the deliverables, the Department of Fisheries and Aquatic Sciences (DFAS) at the University of Cape Coast seeks to support the development of capacity strengthening and sensitization strategies for selected community-based fisheries groups in the Western and Central Regions of Ghana.

The principal objective of the project is to develop a capacity strengthening and sensitization programme for selected rural community-based fisheries management groups in the Western and Central Regions of Ghana. The project has five main outputs which are 1) Eight (8) coastal rural community-based groups in the two regions identified; 2) Capacity needs assessment for fisheries management in the eight (8) selected rural coastal communities undertaken; 3) Capacity strengthening strategies for realization of the objectives of the community-based groups developed; 4) Examples of best practices in community-based management in Africa documented and shared with local stakeholders and 5) A close-out workshop for each community organized

This report therefore seeks to provide documentation and share with stakeholders examples of lessons on best practices of community-based management activities in other parts of Africa.

Acronyms

- CARPE Central African Regional Forum for the Environment
- DFAS Department of Fisheries and Aquatic Sciences
- BMU Beach Management Unit
- CBFM Community-Based Forest Management
- CBNRM Community-Based Natural Resource Management
 - CDA Coastal Development Authority
 - GoG Government of Ghana
 - ICM Integrated Coastal Management
 - IUCN International Union for the Conservation of Nature
 - MINEF Ministry of Environment and Forests
 - MNRT Ministry of Natural Resources and Tourism
 - NGOs Non- Governmental Organisations
 - UCC University of Cape Coast
 - UNEP United Nations Environmental Programme
 - USAID United States Agency for International Development
 - USG United States Government
- WESSA Wildlife and Environment Society of South Africa
- WWF World Wildlife Fund

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Introduction

Globally, community-based natural resource management (CBNRM) is a major strategy for enhancing conservation outcomes whilst simultaneously improving rural livelihoods (Pailler et al., 2015). The underlying theory argues that involving communities in decision-making, access, responsibility and management of natural resources maximizes the benefits for both conservationists and resource communities (Agrawal and Ostrom, 2011). Specifically, community-based approach to ecosystems management; which constitutes coastal and terrestrial ecosystems continues to be an important and expanding conservation strategy in developing parts of the world (Robinson et al., 2013).

In this study, focus is directed on critically examining community-based approaches to ecosystems management in Africa (a developing continent highly endowed with natural ecosystems). The ecosystems under scrutiny are coastal (marine) and terrestrial (forests, mangrove, and savannah).

According to McLeod and Leslie (2013), it is vital to consider the concept of ecosystems management in the context of a community-based approach as this stands greater potential to guarantee the success and sustainability of ecosystems conservation. Since the 1990s, the community-based approach to ecosystems management has been in effect across the developing world (Bowler, 2010); of which Africa is no exception.

However, the last decade has seen community-based management of ecosystems increasingly emerging as a leading paradigm for terrestrial, fisheries and coastal management efforts in developing countries (Olson et al., 2008; Granek et al., 2010). Whilst Aswani et al. (2012) reported that ecosystem management has rarely been successfully implemented, Tallis et al. (2010) added that even in cases where community-based approaches to ecosystems management are ecologically and institutionally attainable, multiple issues arise from the competing interests of numerous stakeholders, undeveloped and/or inappropriate governance structures, poor research or lack of legal or political will.

Further to this, there may be evidence of best practices of community development in some part of Africa, however, this only takes full force where there is the existence of non-governmental organizations to ensure successful collaboration with communities (Aswani et al., 2012).

Looking at how institutions respond very slowly to environmental issues, the significance of involving communities create a sense of ownership amongst community folk and leads to desirable conservation outcomes. Thus, community-based ecosystems management ought not to be overlooked and/or underemphasized.

I. Community-Based Coastal Ecosystem Management

The growing published literature, conferences, and funding suggests considerable interest in Integrated Coastal Management (ICM) (Christie, 2005). Coastal ecosystems on their own generate several ecosystem services for stakeholders (conservationists and communities that depend on such ecosystems). In poor rural areas in coastal areas in Africa, communities populate around coastal areas and wetlands (Blignaut et al., 2008). They depend on mangroves, savannah amongst others for grazing, agriculture, harvesting natural resources for food, medicine, water and other raw materials. Consequently, Blignaut et al. (2008) reported that both terrestrial and aquatic ecosystems contribute about 25% of household income for communities that depend on ecosystems.

Johannes (1987) argued that top-down policies and science-dependent coastal management approaches are undoubtedly not the most effective ways of managing coastal ecosystems in Africa. To this end, Pailler et al. (2015) argued that sustainable ecosystem management approaches were those that involve collaborations between governmental, non-governmental organizations and coastal communities.

2.1 Community-Based Coastal Ecosystems Management in South Africa

In investigating South-Africa's community based success to ecosystem management; this started in 1994 when democratic power-sharing led to reforms in environmental and natural resources regulations (Karume, 2003). For instance, the Coastal Policy (RSA, 2000) aimed at using a community participatory approach to promoting sustainable livelihoods and coastal management for communities located on the Coast. The importance of community participation as a supporting element in marine ecosystems management has also long been recognized in South Africa's establishment of programmes such as Coastwatch, the Blue Flag Campaign and Working for the Coast (WESSA, 2011, Müller, 2009). Coastwatch was established in the province of KwaZulu-Natal under the auspices of the Wildlife and Environment Society of South Africa (WESSA, 2011). The Blue Flag Campaign also has at its centre, environmental education and information for communities (WESSA, 2011). This initiative encourages communities to manage clean and safe beaches (FEE, 2006, 2011). The national department responsible for the environment also launched the Working for the **Coast Project**, a project that provides jobs and training for unemployed people in coastal communities to create and maintain cleaner and safer coastal environment (Müller, 2009). Further, South Africa takes part in the International Coastal Cleanup campaign involving large numbers of communities through a series of regional initiatives (Ocean Conservancy, 2011). These programmes have contributed significantly to creating public awareness, interest and involvement in management of South-Africa's coastal ecosystems.

2.2 Community-Based Coastal Management in Kenya

In East Kenya, there is the practice of Integrated Coastal Management (ICM). Currently, the existence of customary management of the coast and fisheries in Kenya is still ongoing and

has been found to be best practice of community-based management. Clans of families and groups attach much importance to the spiritual and sacredness of coastal resources; for instance, fishers along the coast view resources as controlled through the spirit realm and their values influences how they approach such resources.

Thus, government authorities have, to a large extent, placed the management of coastal ecosystems in the hands of fishing communities. After the post-colonial period in Kenya, district offices began organizing fisheries communities to take part in management of the coast. This led to the formation of small community groups which were then trained in fisheries and marine management. Local knowledge and interest of the structure, functioning and management of aquatic ecosystems therefore increased. Authorities then began to give fisheries concessions to community members such that they will be in control and management of a particular concession. This was then routinely checked by experts to see if it was being properly managed. Hence, rather than authorities managing the fishery, communities were being guided to manage. Thus, the relationship and collaboration between coastal communities and the government evolved and strengthened.

Although later changes resulted in the government institutions such as the Fisheries and Forestry departments and the Kenya Wildlife Service managing coastal resources, it resulted in conflicts. The Coast Development Authority (CDA) was then established to address this issue. A national multi-stakeholder coastal-management committee was established, and several projects targeted at local communities' involvement were implemented (Hale et al., 2004).

Additionally, the new Beach Management Unit (BMU) regulation that came into force in Kenya in 2005 was drafted together with fishing communities and this empowers fisher communities to manage the coastal grounds in their territory, both on-shore and off-shore (Ogwang, 2006). Communities are then monitored and evaluated. Today, marine resources in Kenya are managed at three main levels: the national level by state authorities (fisheries and forestry departments) the municipal (by district heads), and the community level (by coastal communities). At the community level, the approach has increased the capacity of local communities to manage resources within their fishing grounds. It has also led to the facilitation of a coordinated and collaborative process that has served to increase dialog between fisher communities, government institutions and other stakeholders. This happened with plantations and other mangroves as well which were divided amongst communities to manage (Pollnac et al., 2004).

Currently, Kenya enacted a new constitution in August 2010 that largely devolves power and shares government's ecosystem resources with communities although with some conditions. How the three levels of management of marine resources will interact is currently being formulated. However, their community-based ecosystem (coastal) management connotes to sustainable exploitation, conservation of natural resources, and equitable sharing of accrued benefits. Key policies, including the draft Wildlife, Forestry and the National Oceans and Fisheries Policy of 2006, emphasize the importance of community empowerment for resource management (Glaesel, 2002).

Such community-based approach has led to improvement in efficiency and harmonization between government institutions and communities and many management plans of the institutions were drafted through community consultations and endorsement (Obong'o, 2009).

According to Aswani (2012) lessons from the Kenyan story are that any community-based ecosystem management system will need to be simple and readily understood by both policymakers but importantly, the resource community. Empirical studies have shown that the success of such approaches are when the resource communities explicitly understand the structure, functioning, policy and rules governing those ecosystems. Priorities should also be transparent and threats to ecosystem health should be identified in a way that considers the cost and benefits of management interventions which should be informed by local knowledge.

2.3 Community-Based Coastal Ecosystems Management in Tanzania

In Tanzania, three broad approaches (social, economic and biological) which also saw attention being paid to the incorporation of local knowledge in decision making and action brought about the success of community-based coastal ecosystems management (Cunningham, 2005). These factors each greatly influenced communities' willingness to adopt and practice strategies for sustainable management of their ecosystems. Because social, economic and biological circumstances differ amongst communities, policymakers considered these per each communities' context (Cunningham, 2005).

Socially, their management strategy aligned with the rules governing relationships within the community. It took into account the social norms and leadership structures which will facilitate acceptance, adherence and ownership of coastal ecosystems management in fishing communities.

Economically, their approach sought to increase the income of fishermen and to unduly burden fish consumers; thus increasing the net economic benefits for fishermen. This was done by developing appropriate fish markets, ensuring access to those markets at and equitable price for fishermen.

Biologically, they prevented fishing above the maximum sustainable yield such that fishing communities were trained and regulated on not harvesting beyond a certain limit.

Thus, to some extent, communities have authority over resource use and marine spaces. New marine governance systems have also incorporated community-based approaches; resulting in positive and rapid results in coastal management in Tanzania. Impressively, a framework and management tool for community-based coastal management has been developed for use.

2.4 Community-Based Coastal Ecosystems Management Angola and Namibia

In Angola and similarly in Namibia, community-based coastal ecosystems management approach initially consisted of institutional restructuring. This resulted in identification of government and/or policy shortcomings in terms of management of coastal ecosystems, diagnosing of community challenges and/or constraints. This was ultimately followed by solving identified weaknesses and finally allocating rights, responsibilities and benefits to coastal communities (Sowman and Cordozo, 2010). There was community collaboration in defining management objectives and integration of local knowledge into decision-making structures.

Results have shown that community participation in ecosystem management yields more effective and efficient management of ecosystems. Evidence from these two countries also showed that rather than just involving communities, identifying and attempting to address their challenges/constraints such as poverty in fishing communities' lead to increased collaboration and adherence from communities (Isaacs, 2006).

3.0 Forest Ecosystems

3.1 Community-Based Forest Ecosystems Management in Tanzania

Tanzania has been a major player in the community-based approach to ecosystems management, providing an excellent opportunity to test the community-based ecosystems management approach and whether it impacts positively on both communities and ecosystems. During the late 1990 to early 2000s the Tanzanian government passed several pieces of legislation that placed the management of natural resources and for that matter, ecosystems in the hands of local communities. Although community forest management was also in existence around 1991, the implementation of the 1998 Forest Policy and 2002 Forest Act was what legally supported and facilitated community management and ownership of forests Community-based Forest Management (CBFM) [Blomley, 2009]. The 1998 Wildlife Policy provided new opportunities for community management of wildlife resources [WWF, 2014]. Revised 2012 versions of previous natural resource policies promised more control and benefits to communities. Currently, there are more than 105,000 km² of Tanzanian land under some form of Community-based management, managed or co-managed by over 2,400 villages [Tanzania Ministry of Natural Resources and Tourism (MNRT), 2012]. Although the level of participation varies by communities, Tanzania's community-based approach involved entreating communities to set aside an ecosystem (mostly communal forests), and develop their own management plans and regulations which are then sent for government approval. This was the followed by formal acknowledgment and giving communities full "ownership" access and responsibility over forest, savannah or mangrove concessions.

In general, central to Tanzania's approach is the primary objective of improving rural livelihoods, based on the potential for such approach to improve rural livelihoods whist maintaining and managing ecosystems. This has also been achieved through capacity building of communities, engaging communities in planting to conserve mangroves. Additionally, there is also benefit-sharing through tourism opportunities, hunting revenue, and other income generating activities such as forestry and bee-keeping (Blomley, 2009)

3.2 Community-Based Forest Ecosystems Management DR Congo

In Congo, the 2002 forestry code incorporates and instils local rights to communities to manage their traditional forests (Mehlman, 2006). However, communities had to make application to governmental or relevant authorities for approval. A typical example is the Tayna Reserve whose community-based management was initiated by the chief warden (Pierre Kakule Vwirasihikya) of the Virunga National Park. He organized community members who then appealed to their local council and local authorities to establish a 900 km² gorilla reserve. Restrictions were then placed on bushmeat hunting. Additionally, community members were trained to carry out resource monitoring within the park. The community managed reserve was officially recognised by the Congo government in 2002, and currently serves as a model for the creation of other community-based reserves in the region. Consequently, eight community-based NGOs from the region have formed a federation called the Union of Associations for Gorilla Conservation and Community Development in Eastern Congo. They have organized conservation activities modelled from the Tayna Reserve community-based approach (Mehlman et al., 2006). Remarkably, the federation has acquired funding from the Central African Regional Program for the Environment (CARPE), which has created a Sustainable Financing Plan for the Landscape, including a \$4 million trust fund, and have provided health care, family planning, education and development micro-projects for communities involved.

3.3 Community-Based Forest Ecosystems Management in Cameroon

In Sub-Saharan Africa, a success story is recorded from Cameroon.

Revisions to the Forestry laws in Cameroon in 2001 brought in the provision for local communities to acquire the exclusive rights to manage and exploit up to 5,000 ha of customary forest, under a 15-year contract.

However, communities must have formed an association/group and have an annual management plan in order to be eligible for a community-based forest management. This has led to upsurge and support by local and international NGOs helping local communities to submit applications and management plans. In 2006, 116 community-managed forests had been granted by the Ministry of Environment and Forests (MINEF), with another 140 underway (Tchamou, 2006).

Another example in Cameroon is the Ngola-Achip Community Forest in East Cameroon. Village inhabitants were involved in the sustainable management of their forest to facilitate poverty alleviation' (Kenneth, 2006). The formation of community forest associations, such as that at Ngola-Achip, have led to the legal decentralisation of forest resources can impact at the community level; the association is making a profit, and in the first five year period, the community development fund has built new houses, provided school fees and emergency medical care, and bought a generator, satellite dish and two television sets for the village (Kenneth, 2006).

3.4 Community-Based Forest Ecosystems Management in Uganda

The case of the Bwindi Impenetrable National Park in Uganda

In Uganda, there was a community approach to the Bwindi Impenetrable National Park, Uganda (Mazura and Stakhanov, 2008) with the main objective on sustainable livelihoods for forest fringe communities. Although forest conservation was initially not a priority of the communities, the first approach used by conservationists focused on tree planting, soil conservation, and environmental education. The second stage targeted agroforestry as key to indigenous forest resource substitution. The third stage emphasised interventions to assist the poor who had lost the most from establishment of the national park and had the fewest livelihood options. Finally, improvement in financial assets was planned through marketing of locally produced honey, Irish potatoes, and baskets (Nyamabale beekeepers interview, 8 November 2006) and revenue-sharing from eco-tourism (Blomley 2003). Other livelihood improvements include food security, quality of social and family life, women's improved status and empowerment, and capacity building for collective action (Nyamabale, 2006). Communities also participated after a series of workshops, negotiation of comanagement agreements, monitoring of resource use, and reliance on local institutions for implementation.

Additionally, consideration of forest dependent livelihoods and knowledge of the traditional use of their forests was essential in securing community participation. However, local communities could make resource use decisions only within options authorised by park officials (Wild and Mutebi 1996, Blomley 2003).

In the end, communities were empowered through participatory processes of negotiating resource use and management, though not equally with park officials. Additionally, communities have continually gained and used knowledge, skills, and technologies after project activities scaled down (soil conservation, marketing locally produced goods, and collective decision-making regarding livelihood strategies), reinforcing livelihood sustainability (Nyamabale beekeepers interview, 8 November 2006). Overall, the community-based approach contributed to sustainable ecosystems (forest and to some extent, wildlife) management through regulated and controlled harvesting in the park.

The primary conservation goal, stopping poaching of mountain gorillas, was achieved with more people engaged in gorilla protection (Blomley 2003). Forest fire risks have also

significantly reduced. Thus, prospects for ecosystem sustainability have been enhanced by changes in communities' attitudes and practices.

3.5 Community-Based Forest Ecosystems Management in Gabon

Wildlife Conservation Society (WCS) Gabon Outreach Programme (2008)

The Outreach Programme in Gabon is an educational programme, focussing on environmental education, but also teaching basic educational skills (reading, writing and maths), and training in practical skills such as agricultural techniques, and palm and almondoil making. The programme has gained substantial success and recognition since it implementation.

The Mayumba CBNRZ and Outreach Programme (Parnell 2006; Sanders 2007)

Mayumba National Park is a marine protecting sea turtle breeding grounds in the South-West of Gabon. The beaches and sea protected by the park are used as fishing grounds by the Mayumba community located right next to the park, and Mayumba National Park has pursued a collaborative approach with the local community

3.6 Community-Based Forest Ecosystems Management in Zimbabwe

Zimbabwe has also practiced community-based ecosystem management for the past fifty years and has since shown a remarkable positive result. Since its inception, ecosystem conservation was managed by civic movements which recognized that ecosystems were better managed from the bottom-up (community level). This has enabled the serving of interests of communities and landholders' livelihoods whilst ensuring environmental sustainability. This begun with the ICAS (a grassroots and countrywide conservation movement). This was a group formed in communities where they meet and decide what ways to take in managing their ecosystems. They then put their petitions or requests before government which then scrutinizes for approval.

The movement was influenced by persuasion rather than compliance (Gordon-Deedes, 1961). Since then, the movement has been able to encourage effective conservation and improved products from most natural resources.

4.0 Wetlands and Mangroves

In Kenya and Uganda, although mangrove forests are owned by the state, coastal communities are allowed to access and manage mangrove resources. Mangrove-dependent communities were trained in mangrove management and community members took part in replanting activities. Community surveys later confirmed that compared to state-managed mangroves, community-managed mangroves were well-maintained and more productive.

Wetlands have also proven to be crucial resources in African countries, such as South Africa.

Communities have been involved in the management of wetlands and evidence shows this has led to regulation of services such as flow regulation and water purification in addition to the cultural, spiritual, educational, economic, scientific and recreational values (Blignaut et al., 2008).

5.0 Evolution of Institutional Arrangements for Coastal Resource Management

Institutional arrangements for coastal resource management have evolved through time (Boateng n.d.) Until the coming of colonial masters, Africans had access to their marine resources and relied, and still relies heavily on it for their livelihoods (UNEP, 2004). The strong opposition between the Europeans and Africans over access and control of marine resources led to signing of treaties in pre-colonial and colonial era. Thus institutional framework in operation during this era was more revolutionary than consensus. The 20th century saw the struggle for independence and subsequently the emergence of more formal agreements between local communities and governments.

Ostrom (1990) distinguishes three levels of institutional arrangements as:

- Operational rules (day-to-day working rules made by resource users),
- Collective-choice rules (rules used by users and external agents) and
- Constitutional-choice rules (determine eligibility to participate in the system and set out rules that will be used to design collective-choice rules).

Accordingly, Ostrom's identifies three different types of approaches

- I. Top-down approach
- 2. Bottom up approach and
- 3. Lateral approach

Following the huge challenges and opposition faced with both Top-down and Bottom-up approaches, there have been changing paradigms in frameworks for coastal resource control and management towards the lateral approach, which gives power to local communities to manage their own resources. This community based and or collaborative management has resulted in some success stories across Africa. Examples are shown below

5.1 Success Story Collaborative Mangrove Management of Tanga: Tanzania (Nurse and Kabamba, 1999) in Tanga Tanzania

The shift from socialist form of governance to a more multi-party democratic country has seen significant rippling effect in the management of coastal resources in Tanzania. The democratic processes enabled communities to get involved with the management of their coastal resources. The IUCN provided technical support to develop an integrated coastal management program in Tanga with the aim of building capacity in local communities and within government to better manage coastal resources for the benefit of present and future generations of residence. The project was funded by Irish Aid.

5.1.1 Outcomes

The following outcomes were realised as a result of community based management program

- Improved resource base to satisfy the livelihood need.
- Helped the communities to re-gain their sense of ownership thereby reducing the conflict.
- Define clearly boundaries of access, reserve and use.
- Increased awareness among user on sustainable management of the mangrove
- Increased habitat restoration and reduced the cost of protection of the mangrove.

5.2 Community Participation for Conservation of Marine Turtle in Ghana (Olesu and Baidu, 1998)

The Wildlife Conservation Regulation, L.I 680, 1971, protects marine turtles in Ghana from hunting, capturing or destruction. This policy however could not by itself curb the many threats faced by sea turtles. Studies by the Coastal Wetlands Management Project, exposed the severity of the threats to marine turtles when it failed to record the hawksbill and the loggerhead turtles. Subsequently, the Ghana Wildlife Society, a not-for-profit organisation developed a community based turtle conservation approach to protect sea turtles in Volta estuary and Prampram. The project started with capacity building workshop for community leaders around the project area.

Immediately after the workshop, the Ghana Wildlife Society started consulting and working with the communities to form the Turtle Conservation Task Force.

The communities, through the chiefs, District assemblymen and other opinion leaders nominated two members from each of the 17 main communities in the project area for inclusion in the Task Force. The role of the community turtle task forces include:

Educate the communities about the status of marine turtles in the country and the need to stop the killing and egg collection. Report killing and egg collection to the chief in the first instance

5.2.1 Outcomes

The most important achievement of the turtle conservation project was dramatic change in people's attitude and behaviour towards marine turtles. This may be attributed to an increased awareness of the turtle problem due to the activities of the Society and the community turtle task forces. Task force members have reported that fishermen often invite them to come and witness the release of turtles accidentally caught back into the sea.

Hitherto, accidentally caught turtles were killed. The formation of the turtle task forces also provides an immediate point of contact for community people who want to report egg collection or killing of turtles.

6.0 Conclusion

From a critical point of view, sustainable effects of community-based approaches can be achieved through approaches that simultaneously consider the livelihoods of communities surrounded by ecosystems whilst ensuring the sustainability of such ecosystems. This premise seems apparent in the above case studies. This is because the improvement of community livelihood was associated with positive changes in ecosystems, particularly coastal and forest ecosystems. It seems appropriate to conclude that in Africa, sustainable ecosystems are best achieved through collaborative ecosystems management in which communities participate in decision making, institutionalizing of regulations and shared benefits.

Such community-based ecosystems management are most effective when they:

- Comprehensively utilise community participatory processes from project initiation to completion
- Transfer ownership to communities under clear, negotiated, consensus-based agreements
- Create the legal framework or environment
- Build community capacity to implement planned activities
- Provide training and secure access to new skills and technologies
- Improve horizontal linkages and spread benefits to nearby communities
- Focus on indigenous knowledge to achieve more locally appropriate and costeffective goals

These conclusions reinforce the position of the:

- Need for more meaningful engagement and/or involvement with local community,
- Improvement of the flow of benefits to communities, and
- Continuous development of innovative approaches for community participation in the management of natural resources.

Such approaches however, should be influenced by equitable and transparent power-sharing and ownership roles, which are acceptable to all stakeholders (Odera, 2004). It is also important that the community-based approaches consider the challenges faced by ecosystem-associated communities in their local context (Olsen, 2000).

Finally, as community-based management approaches are challenging, attention must be paid to legal and institutional frameworks that support integrative planning on local and national scales (Pailler et al., 2015).



Community stakeholder meeting at Anlo beach, Western Region, Ghana

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