

Report on

Lessons Learned & Best Practices with Recommendations

By

Iddi H. Hassan & Tamrini A. Said

June 2006

Report Prepared for CARE- Tanzania (Zanzibar)

Table of Content

Table of Content	i
ist of Table	i
ist of Figure	ii
ist of Appendix	ii
Disclaimer	111
acknowledgement	iv
ist of Acronyms	v
. Introduction	1
. Evaluation Methodology	1
2.1 Data Collection	1 2 2
2.3 Sampling design	
. Definition and core concept of Participatory Forest Management (PFM)	
3.1 Definition	
3.2 The core concept of PFM	
. Major Evaluation Findings	
4.1 The process and protocols used to develop and agree on (RUMA)	
 4.2 The modalities used to build up VCC, WHA, and JECA. 4.2.1 Village Conservation Committees (VCCs) 4.2.2 Wildlife Hunting Associations (WHA) 4.2.3 Jozani Environmental Conservation Association (JECA) 	7 8
4.3 The quality of stakeholder participation and relationships in forest and wildlife Conservation	9
 4.4 The effectiveness of implementation of RUMA around Jozani core area	9 ers
 4.5 The level of transparency in negotiations and financial dealings	_ 11 _ 11 _ 11
4.6 The level of gender sensitive participatory governance in increasing participation of a benefits to women	

4.7	The level of capacity building work to civil society organizations, especially the VCC WHA and JECA	
		_ 1
	Lesson learned	
5.1	Including all stakeholders is necessary, but difficult.	
5.2	Community empowerment improves benefit awareness and resource management _	
5.3	Partnership supports forest resource management	
5.4	PFM creates working group relationship and dialogue between partners	
5.5	Building local institution capacity ensures effectiveness	
5.6	RUMA help to management conflict	
5.7	There is no single model for building social capital and developing local managemen agreements	t
	The best practices and recommended way forward for the development of resource use management planning process for South Jozani villages	_ 1
6.1	PFM development process	_ 1
6.2	Local institution and stakeholders' participation	_ 1
6.3	Benefit sharing	_ 1
6.4	Capacity building	_ 1
Refer	ence	
Table	of Table 1: Processes used to develop RUMA around JCBNP	
	of Figure e 1: PFM Process Leaning Approach/Cycle	1
List o	of Appendix	
Appe	ndix 1: Term of Reference (ToR)	2
	ndix 2: Evaluation timetable	
Appe	ndix 3: Questionnaire	2

Disclaimer

The opinions expressed in this report are those of the evaluation mission (consultants) and do not necessarily reflect those of CARE.

Acknowledgement

The evaluation mission is very sincere to CARE Tanzania - Zanzibar Office for putting considering its proposal and offered them this special task. We also deeply indebted to Mr. Thabit Masoud CARE Area Coordinator, Zanzibar Office, for giving us guidelines of theoretical concepts of the evaluation before and during the data collection and analysis.

We would like to thank the whole team of the Department of Commercial Crops, Fruits Forestry (DCCFF), Participatory Forest and Wildlife Conservation Project (PAFOWCOP) Jozani Chwaka Bay National Park, JECA, Village communities and Village Conservation Committees for their willingness to participate in the evaluation. Their support made our task most easily.

Special thank should go to Mr. Ali Juma (Meneja), Ali Ussi Basha, Ali Ali Mwinyi and Ali R. Suluhu for their close corporation and information sharing which made this evaluation most successful.

We are kindly acknowledging all participants attending in a presentation workshop at Kitogani Primary School on this evaluation. Their opinions and comments helped to improve the content of this report.

As it is not possible to name each and every one, we would like to thank any person who in one way or another contributes directly or indirectly to the success production of this report.

Tamrini A. Said

Iddi H. Hassan

List of Acronyms

DCCFF Department of Commercial Crops, Fruits Forestry

FMA Forest Management Agreement

ID Identity Card

JCBNP Jozani Chwaka Bay National Park

JECA, Jozani Environmental Conservation Association

JFM Joint Forest Management

JOCDO Jozani Community-based Credit Development Organisation

MS-TCDC MS-Training Centre for Development Cooperation

NGO Non-Government Organisation

PAFOWCOP Participatory Forest and Wildlife Conservation Project

PFMI Participatory Forestry Management Initiative RUMA Resource Use Management Agreement

VCC Village Conservation Committee WHA Wildlife Hunting Associations

UWEMAJO Umoja wa Wenye Mashamba Jozani (Association of Petty

Farmers)

Evaluation of Participatory Forest Management Initiatives (PFMI) around Jozani-Chwaka Bay National Park, Zanzibar

1. Introduction

The Participatory Forest and Wildlife Conservation Project (PAFOWCOP) is a partnership initiative between CARE international in Tanzania; The Department of Commercial Crops, Fruits and Forestry (DCCFF); and the Community-based Credit Development Organisation, JOCDO. This two year project has been established for the purpose of completing the resource use management agreements between the Revolutionary Government of Zanzibar and eight respective community groups located around South Jozani-Chwaka Bay National Park (JCBNP). Prior to this project between 1995 and 2003, CARE and DCCFF had carried out an intensive work to accomplish a similar process for eight ¹villages around JCBNP. As an outcome, eight resource use management agreements within the target were successfully developed, agreed and signed by respective parties.

With such an experience, the consultants were asked at scientifically testing the participatory forest management initiative around original Jozani area to determine the "best practices" that will function as a model for future projects throughout the Hotspot. "Best practices" will be determined by a thorough evaluation of original participatory forest management projects mentioned above and the preparation of a lessons learned report.

2. Evaluation Methodology

2.1 Data Collection

2.1.1 Primary data Collection

- Interview: this included the collection of primary information from the (i)key informants such as Village leaders, VCCs chairman, JECA director and Chairman of WHAs. Individual interview to village members (5 at each village) also have been done and was including middle aged and sex's categories. Additionally, interview with South and Central District officials was done since they are part and parcel of the PFMI process.
- **Group Discussion:** this involved discussion with members from VCCs, (11)JECA executive committee, WHAs and women groups. This was done in a form of village meeting in each study village

¹ The villages are Bwejuu, Charawe, Cheju, Chwaka, Kitogani, Pete/Jozani, Ukongoroni and Unguja Ukuu.

Interview and group discussion was done in the morning and evening based on the consultation with village authority so as to enhance community involvement in the evaluation.

2.1.2 Secondary data collection

This was mainly concentrated on literature review in the already documented reports related to the task at DCFF library, CARE office, internet and other places e.g. Jozani

2.2Data Analysis

About 80% of the field data was analyzed in a more qualitative manner and some information has been quantified.

2.3 Sampling design

A random sampling design was applied in selecting villages to be involved in the project. The sampling intensity of 75% was used in this study as it is not possible to conduct a 100% sampling intensity. Thus, six villages out of eight have been selected randomly using simple random method – names of each village was written in piece of paper and folded, one person collected each piece of paper one by one and unfolded it up. The names of the village appeared in a piece of paper was tallied as selected for the study. The villages selected were: Cheju, Chwaka, Kitogani, Pete/Jozani, Ukongoroni, and Unguja Ukuu.

3. Definition and core concept of Participatory Forest Management (PFM)

3.1 Definition

Participatory Forest Management (PFM) is an arrangement where community (forest users) and the government services (forest services) enter into mutually enforceable arrangement and work together to:

- define rights of forest use;
- develop ways of sharing management roles and responsibilities; and
- agree how to divide and share forest benefits.

PFM also refers to the legal empowerment of local communities to manage forest resources for, in the first instance, their sustained livelihoods, and in the second instance, economic return. All these are important aspects for sustainable

management of defined forest resources (PFM workshop MS-TCDC, 2005 and Farm-Africa (2002).

The term PFM includes Joint Forest Management, Collaborative Forest Management, and other similar terms, that are all used to describe modes of community based forest management systems.

3.2The core concept of PFM

The process of PFM involves the legal transfer of resources (use rights to, and/or, ownership rights of) from the government to communities. This transfer is enabled by and dependent upon, a negotiated and documented Forest Management Agreement (FMA) or Forest Resources Use Management Agreement (RUMA) as commonly applied in Zanzibar

Action to involve forest-local communities in the management of forests is well under way in Africa. Most of these developments have or quickly acquire – policy and legal support through national forest policies, national forest management plans and national forestry legislation (L. Wily, 2002).

In Zanzibar, RUMA is legally binding contract between a defined community based institution (Community Forest Management Group) on one hand and the Government (represented by the Forest Administrator) on the other. The RUMA clearly entails:

- the negotiated and agreed roles and responsibilities of both parties
- the negotiated and agreed rules and regulations for the sustainable management of forest resource. (the rights, duties and responsibilities of community and forest administrator are attached as appendix 4 of this paper)

Collaborative management of forest reserve with local communities is an ideal that is proving hard to implement for a number of reasons, though Tanzania demonstrate that collaborative and joint forest management can be widely institutionalized at all level of the government and within communities (Wily and Mbaya 2001)cited in Barrow et al., 2002)

Zanzibar started initiating PFMI since 1995. This was possible through the support and collaboration of CARE Tanzania and Department of Commercial Crops, Fruits and Forestry (DCCFF), Zanzibar. The process has also got legal support from Zanzibar National Forest Policy (1995) which started to be implemented in 1996 and Forest Resources Management and Conservation Act No. 10 of 1996, which stated into force in 1997.

In Zanzibar, the focal area of PFMI was Jozani – Chwaka Bay National Park. The driving force to initiate the project was the need to address the problems of forest degradation and declining wildlife populations in the Jozani-Chwaka National Park, while also recognizing the need to improve local livelihood (Hartley et al., 2003).

4. Major Evaluation Findings

4.1 The process and protocols used to develop and agree on (RUMA)

Resource Use Management Agreements are considered as a legal instrument necessary to safeguard the dwindling of ecological resources base in the country. Its establishment has aimed at producing proper plans and introducing a system that will lead to sustainable resources utilization, conservation and enhance economic development of the entire rural communities.

The development of RUMA involved a dynamic process, professional and non-professional human resources interaction and number of techniques. Additionally, willingness and support of the village communities have been a crucial aspect. The table 1 below shows processes that have been used around JCBNP when developing RUMAs

Table 1: Processes used to develop RUMA around JCBNP

No	Process	Description
1	Village identification	■ Village self-request These are villages that requested (by their own) to forest administrator the power to share forest resource management. This was after getting the effect of forest resources exploitation; e.g. Cheju village (see story in Box 1). Other villages requested to have the program after smelling the benefit from other villages. These villages found to more active in planning, follow-up and decision making. ■ DCCFF priority These are villages identified by DCCFF as a result of resources initialization effect and or closer to the protected area, where its conservation support could have an impacts to the expected conservation practices — positive or negative
2	Introduction of Local Management	The concept and process of local management is introduced and discussed among village community and facilitators so as to make clarity. This involve: village/shehia's meeting and flip-chart demonstration
3	Background information collection	This involves the searching for the basic information for each village and may include livelihood dependence, wealth categories, social issues etc. The information is obtained through PRA approaches

No	Process	Description
		Major issues considered here including
		■ Indigenous/local institutions
		 Gender presentation
4	Conservation committee	Interest groups
	formulated	Political neutrality
		Objective of the committee formulated
		Committee formulation
		 Whole village mandate
		This involve the following programs
		Cross visits
5	Awareness training	■ Video show
		 VCC training
		■ Drama
		■ Role play
		School programs
		This involves the collection of various forest resources
6	Forest resources	available in given village forest. PRA approach is used to
U	information collection	get such data, mapping and allocation forest resource are
		also documented at this stage
		The village community with the DCCFF facilitation try
	Interim management measures	develop the following
		Village bylaw on resource utilization
		■ Conflict resolution (normally it is from this stage
7		where minor conflict start due to intra community
		and power relations)
		Village forest guarding
		Mandating village power to arrest (practicing village
		bylaws and National legislation)
	Local management plan	This involves
		Summary of the above process
8		Resource use management plan and maps produced
	production	Village bylaw completion Village bylaw completion
		Village revenues management plan developed
		DCCFF and Ministries responsible approve the plans
	Local management implementation, support and monitoring	This involve the actual actions by community and other
		stakeholders and include
9		Village managing forest resources through bylaws and
		plansDCCFF provide support services to village
		 DCCFF provide support services to vinage Community and DCCFF undertake joint forest
		patrols
		 DCCFF facilitate conflict management
		Community and DCCFF jointly review RUMA
		performance
		performance

6

The process for developing RUMA has been very effective. There has been very active involvement of local communities in decision making since VCCs and resource people from communities have been much involved in drafting of RUMA. They also have significant say in decisions regarding implementation since main decisions are supported by their own bylaws. Dubois (2001) notices that, during the validation process, these groups (VCCs) were able to give their input. Each major step concerning the drafting of RUMA agreements has been validated through village meetings. Additionally, there is a sense of ownership² and benefits oriented that triggered village communities to accept the process and agree on RUMAs. This was possible through imparted knowledge in the form of meeting, training, and cross visits in areas where forest degradation is quite significant, like Nungwi etc.

Box 1: Cheju Village: A catalyst for Community Forest Management Initiative

The village is found at central district of Unguja Island. About ...km from Zanzibar town. Their major livelihood occupation is farming (rice, cassava, banana etc) as they big and good land for agriculture. The village possesses relatively vast area of natural forest important for biodiversity conservation, they not the major users of the forest products for commercial basis, only household uses. Some neighboring villagers and forest officers enter into the forest and cut firewood and poles for sale without their consent. An old village man Mr. Khamis Faraji revealed in a workshop for presentation of evaluation findings how they started PFM. "We were unhappy with tend of exploitation of our forest resources. We wanted our children to inherit the same way we did from our grandfathers. Three of us initiated forest patrols, and it happened one day to arrest a forest officer with a lorry of firewood coming out from our forest. Forest authority wanted to intervene and let their colleague free. After long discussion, we offered him free and warned not to act that next time. It is from this point that, forest authority sat with village authority and started negotiation of acquiring mandate to manage our forest. They gave us provision mandate while official process took its course. To day we have our own legal Resource Use Management Agreements and we cooperating with foresters.

_

² Control outsiders, freedom of utilization (i.e. no interruption from government authority), sustainable utilization (plans), and empowerment in planning and decision making.

4.2 The modalities used to build up VCC, WHA, and JECA.

The process of forming committees around JCBNP varied as regards representation of the main user and social groups as described below.

4.2.1 Village Conservation Committees (VCCs)

Prior DCCFF intervene:

When the idea of having VCCs came into practice, the village local authorities (i.e. Sheha councils) took the mandate in selecting the members of the VCC based on a random selection with community power relations considerations. This approach was not welcome not only by village members but also by the forest authority and has to intervene.

Post DCCFF intervene:

The DCCFF staff took the role of facilitating the establishment of VCCs and the following approach was used:

- Village meeting: a village meeting was called in each village by village authority and DCCFF staff presented the idea to the meeting participants on general approach to build up of the VCC, including quality of VCC members
- **Selection of members:** the meeting selected the members based on the criteria and method given by DCCFF staff.
- VCC leadership/structure build up: once the VCC members were obtained, the group selected their leaders whom found they could lead the VCC and general village community on forest resources issues. DCCFF staff acted as monitor during the process of the leader selection. The VCC leaders were acknowledged at village meetings so as they could be understood by entire communities. The names sent to the DCCFF and district authorities respectively.
- Role and responsibilities: each VCC was given its role and responsibilities to help them doing their task
- **Implantation:** this involved the undertaking activities and including, forest patrol

4.2.2 Wildlife Hunting Associations (WHA)

Wildlife hunting associations was available in some villages (though in small groups) even before RUMA and DCCFF intervention. The groups were managed by members from National Hunting Committee. DCCFF took new initiative to facilitate the legal formulation of WHAs and the following process used.

- Village meeting: a village meeting was called in each village by village authority and DCCFF staff presented the idea to the meeting participants on general build up of the hunting associations (importance, benefits accrued by being in association etc)
- **Identification of village hunters:** the village meeting identified the village hunters to formulate the WHA for the village. Here the members were for specific resource use wild animals
- **Selection of members:** after the hunters being identified, they were selected to be the members of the WHA on behalf of the respective village.
- WHA structure/leadership build up: once the WHA members were obtained, the group selected their leaders whom found they could lead the WHA and general village community on wildlife resources issues. DCCFF staff acted as monitor during the process of the leader selection. The WHA leaders were acknowledged at village meetings so as they could be understood by entire communities. The names sent to the DCCFF and district authorities respectively.
- **Formulation of hunting bylaws:** the village in collaboration with DCCFF formulate the bylaws, which WHA used to manage the wildlife resources
- Role and responsibilities: each WHA was given its role and responsibilities to help them doing their task
- Implantation: this involved the undertaking activities and including, wildlife patrol, issues of hunting permits, etc

Discussion revealed that, development and acceptance of VCC and WHA was motivated by having of tangible benefits e.g. employment and confiscated products and or cash from the sale of seized products.

4.2.3 Jozani Environmental Conservation Association (JECA)

With time it was thought that, for the VCCs formulated above to work effectively there was a need to have an advisory committee to facilitate VCC activities in the

Jozani Chwaka Bay National Park. Thus, the idea was put in practice, and JECA was build up through the use of the already established Village Conservation Committees (VCCs) surrounding the JCBNP. Each VCC appointed three representatives (two men and one woman) necessary to formulate JECA as Advisory Committee.

Later on, Department of Commercial Crops, Fruits and Forestry in collaboration with CARE, brought forwards the idea of having one local institution in name on NGO around JCBNP to oversee and support the VCCs functions. The idea put into practice and JECA developed into an NGO. JECA is now acting as an umbrella to these VCCs and have full capacity and autonomy to facilitate running VCC activities.

4.3 The quality of stakeholder participation and relationships in forest and wildlife Conservation

With exception of Cheju village, quality of members in relation to forest and wildlife conservation was not an agenda for consideration in the formulation of VCCs. It was thought being a member of VCCs there could be direct benefits like employment and thus, in other village even members of village council was selected to be VCC members. Generally, during the formulation of VCCs the following qualities were critically given consideration

- gender
- influential resource users (wood cutters, herbalist, hunters, etc)
- seaweed farmers, fisherman, farmers etc)
- influential person
- resident at the village
- commitment in community voluntary work

One could say that a fairly good representation of all user and social groups has been achieved by at end of the VCC formulation, and therefore this is reflected in the current composition of VCCs. In some villages wildlife hunting associations have dissolved into VCCs.

4.4 The effectiveness of implementation of RUMA around Jozani core area

4.4.1 Knowledge about the management agreements to community

Most of village community members are aware of the management agreement. However, some of them are not. Reasons including:

(a) failure of the VCC to inform the community members

- (b) failure of DCCFF to launch the RUMA at village level after inaugurating at National level
- (c) failure of the some of the community members to attend the village meetings when called upon

Most of the time communities participate in the village level, however DCCFF send back the Document for corrections. Effectiveness of the RUMA depends on commitment of the implementers, the RUMA is implantable but some of the communities members are not committed enough to implement the RUMA for their own benefits.

4.4.2 The existence and effectiveness of community forest patrol by community members

Haphazard or irregular community forest patrol programmes established and varies with villages. Some doing twice per month; others, when need arise. Some VCCs use information from hunters to conduct forest patrols. Forest patrols are only done within and around community forest areas. It was understood that, the effectiveness of the community forest patrols to some extent were motivated by:

- tangible benefits that could be accrued during patrol exercise e.g. cash, forest goods,
- intrinsic conservation values of the communities, and
- promises of logistics by forest authorities (ID, protective gears, etc)

However, talks seem that, effectiveness started to decline due to number of reasons as:

- failure of forest authority to provide IDs to VCCs members as stipulated in the agreements and in the Legislation.
- weak support from forest authorities when VCCs members require transport for logs transportation or dealing with matters pertaining outsiders
- VCCs members has not protective gears to assist them doing their work effectively

4.4.3 Responsibility taking among community members and the government

Community management group and government's responsibilities in RUMA implementation has been outlined in the agreement itself and each party need to be adhering to during implementation period. Some of these responsibilities have been developed and agreed during the drafting of the RUMA by community in collaboration with DCCFF. Other are stipulated in the forestry legislation but community agreed upon them since they hit their demands. In addition to the responsibilities mentioned in the RUMA and Legislation, Government are also

required to provide technical advisors, to ensure that RUMA is implemented as agreed by both sides, and to ensure forest guards are collaborating with VCCs in the forest patrol. However, it was revealed that, some of the forest guards are not aware of the VCCs responsibilities and Department are not doing follow-up and continuous advise.

4.5 The level of transparency in negotiations and financial dealings

4.5.1 Transparency in negotiation and financial dealings between VCCs and JECA

JECA executive committee is one that involves communities in negotiating financial dealings; in this level the benefits/bill are shared based on what they have negotiated upon during their meetings but with reference from what has been stipulated from their constitution. Three VCCs members from each village, the Secretary, one Woman and the Treasurer are participating in negotiations and financial discussions with the JECA executive committee meeting.

Once funds get available the Village, it is the role of VCCs to sit together with Village Development Committee (VDC) and discuss on how to use the funds accrued from different allocation. Development Committee (VDC) calls village general meetings to discuss how to use the fund. The uses of fund usually are distributed based on **bills** that have set to the VDC, for example water system, dwelling water wells, buildings schools and or Islamic Madrassa etc. Communities around JCBNP receive Community Development Fund from Jozani Chwaka Bay National Park retention scheme twice a year. Communities shows their sincere perspective that the whole process used in the negotiating communities' financial matters is smooth and is done in transparency way.

4.5.2 Transparency in negotiation and financial dealings between Government and Communities

DCCFF represents government in the discussion of financial matters with communities around JCBNP. Other institutions includes finance unit in the Ministry of finance, Lawyers, During discussion communities agreed that, process used in negotiation is quite reasonably and an element of transparency is assured. However, Pete raised their concerned that, their 10% share taken to farmers from mangrove boardwalk has not reimbursed even after DCCFF retaining 80% of the revenue collection as agreed.

4.5.3 Quality and modality of benefits sharing among communities participating in forest and wildlife conservation programs around the JCBNP

There are various areas where benefits from JCBNP are shared with communities. They ranged from financial resources, research information, market information and employment opportunities. On employment opportunity, out of 68 staff that is working with JCBNP, 63 are semi profession and are coming from surrounding villages. This is equivalent with 92%. Five staff is professional are coming from town. Communities are also benefiting from revenues collected from tourist. The distributing pattern is described in table 2 below. The researches that done at JCBNP are participatory and these build skills for village communities in understanding research principles and techniques. JCBNP also provide market information to farmers and women on their products such as handcraft.

On the quality of benefit sharing point of view, although there is transparency in benefit sharing, but community seen that the share they are getting is not corresponding with intensity of destruction and need review. Soud *at al* (2004) find that monkeys raid crops all the years around, number of crops affected increases from 2-20 and feeding effects ranged from 25% to 80%.

Table 2: Pattern of benefit sharing at JCBNP

Categories of Sharing		End use/Target Area	
(A) F	(A) Part of 80% of revenues collected		
	33.6%	Conservation of Jozani	
56%	22.4 %	Farmers – 65% (through UWEMAJO) and community	
		development project - 35% (through JECA)	
44%	14%	Government (Treasure)	
	30%	DCCFF	
(B) Part of 20% of revenues from Mangrove Boardwalk			
	40%	Pete Community Development	
	30%	Farmers' compensation	
	20%	JECA	
	10%	DCCFF – Jozani	

4.6. The level of gender sensitive participatory governance in increasing participation of and benefits to women

Women participation in development activities operates within the framework of cultural norms of Zanzibar and they participate on fairly equal basis. Women participation on the development and conservation issues is highly valued at village up to regional level. They are participated in the VCCs (though is voluntary) and other activities. In each committee, sub committees and special task force developed,

women are involved thoroughly. Regarding benefits to women it is not directly allocated to individual women per say, however, they benefit indirectly through the development activities that can also touch women demands.

4.7. The level of capacity building work to civil society organizations, especially the VCC, WHA and JECA

The local institutions around JCBNP (i.e. VCC, WHA and JECA) have relatively good capacity in managing day-to-day activities. Through various training, capacity of JECA has built up to the extent that can successfully supervise development projects and as well manage community development fund for the Shehias. Unification of nine Shehias for common goal of conservation reflects JECA capacity in handling community issues. Communities through VCC and JECA have also empowered and capacity built through training in business and marketing skills. Communities also developed saving and credit scheme leading to prosperity.

4.8 The shortfalls of the original process for developing RUMAs around JCBNP

4.8.1 At Development Phase

- RUMA create discrimination: **section VII: rights and duties.** Paragraph (d) give the right to community management group (CMG) to exclude nonmembers of the group from use of Community Forest Management Area. This is wrong, in principle and should be in practice, CMG manages the village forest resources on behalf of the entire village members, so there is no point to exclude other. This could be a source of conflict during implementation.
- There was a weak community mobilization and awareness raising that lead to some community members not participated in the meetings and RUMA development
- Non local natives were not involved in the process
- Process (establishment to the approval) took longer time to complete lead to cause disappointment of the community and some of the agreed land use plans are no longer exist during implementation
- Other stakeholders in natural resources management was not involved (e.g. agriculturist, land use, fisheries, livestock, other NGOs, etc)
- Lack of information sharing between nearby villages
- Staff lacks background information and skills on how to develop RUMA, thus major aspect not included in the agreements.
- RUMA lack define procedures for communication between forest authority and VCCs which represent village community

- RUMA did not state how the revenues collected could be used and seems that villagers decide alone on the use of revenues (e.g. for social infrastructures) at the expense of matters pertaining to natural resource management

4.8.2 At Implementation Phase

- Conflict of resource utility: this problem was critically noticed when one village closed its forest for cut (i.e. conserved) while their neighbours were not RUMA practicing villages.
- Forest authority failed to provide IDs and protective gears for VCC members to effectively conduct their duties
- lack of commitment in the implementation of the RUMA (mihali)
- Lack of support from police and DCCFF officials
- Over confidence by DCCFF that community will implement RUMA without problems (i.e. no follow up, monitoring, reporting)
- Lack of information sharing between nearby villages
- RUMA lack procedures for resolving conflict between forest authority and village community in the resource management and Act 10 of 1996 give forest administrator has the right to revoke the agreement without consultation with partner (village community)
- It is noticed that, the current system of gathering community at Jozani office giving their revenue share is exposed them at risk and need to be revised to ensure safety.

5. Lesson learned

5.1 Including all stakeholders is necessary, but difficult.

- Assuring participation of women, youth, major forest users, and other minorities in activities and decision making poses many challenges. Participation should also include village authorities, government officials, technical service agents, local NGOs etc.

5.2 Community empowerment improves benefit awareness and resource management

- Communities are now aware of the very real opportunities offered by participatory forest management, as much as they visualize a local system of wealth generation by using the natural resources of their forests to meet the practical needs

- Participatory Forest Management Initiatives stating to show that village communities are concerned, can benefit from and have responsibilities for forest resources, even if forest management authorities may still have overall control
- Revenue-sharing is a good mechanism for sharing the benefits of Parks with local people but the focus and scale needs to be revised.
- Development outside the Parks or protected areas, help to reduce peoplepressure on the protected area resources

5.3 Partnership supports forest resource management

- The appearance and involvement of new actors not only provides major support to the forestry sector, but also allows the formation of new partnerships among the actors in forest resource management
- It is well recognised that although the authority to manage JCBNP resources lies with the forest authority, the ultimate success of its conservation efforts depends on the support and positive attitude on the part of the people who live on the boundaries of the JCBNP

5.4 PFM creates working group relationship and dialogue between partners

- There is a remarkable growth of dialogue among the partners in sustainable management of forest resources. Local community's representatives, government officers, and researchers are meeting one another, exchanging ideas and moving forward together in the common interest.
- The contribution of indigenous knowledge seems to be an important element in participatory forest management, especially on ethno-botanical point of view
- Negative impacts of Parks on local people such as crop-raiding by wild animals must be addressed through prevention or compensation

5.5 Building local institution capacity ensures effectiveness

- Another major lesson learned during this process is the effectiveness of strengthening the local population's skills through on-the-job training, seminars workshops and field visits.

5.6 RUMA help to management conflict

- Resource management arrangements, help to reduce conflicts and improve Park/people relationships

5.7 There is no single model for building social capital and developing local management agreements

- The process must be iterative, allowing for adaptive learning over years to bring all stakeholders together in an informed and voluntary manner. Building trust between groups is a time-consuming process yet need to be considered critically.

5.8 Conflict management within and between communities

- A lot of constraints seem to relate to conflicts within communities regarding the use of JFM agreements. This is especially true when the offenders are associated with member of VCCs. A good example could be seen where fine is instituted in favour of the offender and not according to the agreement. Another case is where offender is supposed to pay fine which by virtue of his/her living standards could not afford to pay. It important to revise the fine and other penalty systems when revised the old RUMA and need attention when developing the new ones. Fine should consider the living condition of the most of the rural people.

6. The best practices and recommended way forward for the development of resource use management planning process for South Jozani villages

6.1. PFM development process

- Dubois and Lowore, (2000) suggest that, a learning-based approach must be adopted to open up a dialogue over new resource management systems. This approach has three distinct stages; investigation, negotiation and implementation. The approach initiates a participatory process that is self-informing (investigation), provides space for key actors to discuss and decide on the structures and direction of management (negotiation), and recognises that real learning takes place once new decisions are put in to practice (implementation). The whole idea is good and practicable; however, in order to identify mistakes there is a need to add another stage of monitoring. Morning stage is necessary at every stage of learning process. Thus, the mission team decided to put this learning process in a diagrammatic manner to enhance understanding as shown in figure 1 below.

16

³ the educational, social, and cultural advantages that somebody from the upper classes is believed to possess

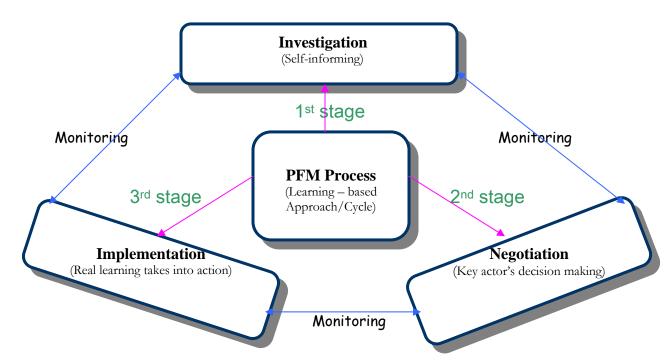


Figure 1: PFM Process Leaning Approach/Cycle

Source: This report (2006)

Recommendation

- Carry out a thorough participatory analysis at the beginning of RUMA process, as part of the process of gathering baseline information to help community understand the real theme of PFM. Additionally each party will be able to learn weakness and strength of others and to help in prioritising areas where to focus attention
- During PFM development, is important for the agreed parties to clearly define procedures for communication and record keeping mechanism at the time of RUMA implementation
- Since the process of developing RUMA need longer time, it is recommended to start with few villages for instance four villages at a time rather than accommodating all villages. With limited resources, little efficiency will be attained. Dubois argues that a close follow up by DCCFF is essential to ensure that the approval procedure is carried out in a cost effective manner;
- Community and project staff should have study visit preferable in areas where RUMA is implemented e.g. Uganda so as to get familiarizes with the process

- Ensure that JFM agreements include clear provisions regarding the need for regular monitoring of performance, focusing on most threatened areas. These provisions should be included in the revision and future JFM agreements.
- Training should be given to all community not concentrated to VCC and leaders alone

6.2. Local institution and stakeholders' participation

- The establishment and maintenance of effective strategic partnerships seem to be important factors in sustainable forest management, taking into consideration both the difference in levels of interests and the convergence of the interests of all the partners. Partnership should implies the same level of responsibility, with:
 - o identification of common goals;
 - o a negotiation cycle;
 - o the signing of a partnership agreement.
 - o benefit sharing scheme
- It is important to ensure that the right institutions at local level are in place for PFM arrangements. The best example is seen at Kibuteni and Mtende Villages (see story in box 2 below). Also all relevant stakeholders have to participate in designing the rules, regulations and norms which finally govern the daily running of such local institutions.
- The existing village assemblies and village councils by statue provide the necessary organizational framework that can be utilized in the implementation of forest management at local level

Recommendation

■ PFP process should be initiated when there is appropriate local institution having full mandate from and recognized by village members. Key stakeholders involvement in the initial stage of PFM process should not be ignored if effective implementation of PFM is to be achieved. Mechanism for effective communication and record keeping should be put in place

6.3. Benefit sharing

Concrete benefits are essential in order to provide the incentives needed for wholehearted participation.

Recommendation

- The greatest challenge facing participatory management is that of generating income and devising mechanisms for distributing such returns to the communities, and this concept need great attention at South Jozani villages so as to ensure effective management of the forest resources, thus there is a need to for identification of potential tourist attractions in South Jozani villages

so as to find means of income generation. Additionally, introduction of saving and credit scheme, beekeeping and handcraft prorammes could ensure livelihoods security for the villagers.

Table 3: Kibuteni & Mtende Villages: Active residency in Forest Resource Management

In principle it well known that PFM is initiated in well established forest where community could benefit from the start. However, this was different from Mtende and Kibuteni villages. They started PFM in areas with thickets and coral cultivated area. Farmers in these areas were mobilized and accepted to release the land for the purpose of conserving the existing endangered and rare species of flora and fauna and now have becoming the forest. This could be taken as a lessoned and best practice that PFM not necessarily established in a high closed forest and active residency in PFM. Communities themselves are the success of the conservation of Mtende and Kibuteni community forests. In the past these community forest were just little thickets and several open patches scattered over the whole forest areas. At that time it was difficult to find adders duikers, but after PFM initiatives by these villages, these forests becoming a refugee of Ader's duiker and other wild animals with majority of suni duiker. Currently these two villages are exemplary of PFM at South Jozani villages where the PAFOWCOP is due to take place.

6.4. Capacity building

For effective participating and adaptive learning project and partner personnel need to be well-trained to encourage open debate, foster consensus, and guide without leading.

Recommendation

- Respect for and recognition of local know-how is essential. This is as true for local leaders as for NGO and government agents. Training programs in conflict resolution and consensus building is limited in VCCs and JECA members; yet required so as to make major changes and contributions in implementation of RUMA. Other training recommended for both the Core Jozani and South Jozani communities includes:
 - Holistic Management of Village forest resources
 - Revenue management
 - Financial management

- Lobbying and Advocacy techniques and principles
- Training of Trainers

6.5. Funding of VCC activities

Currently, VCCs depend on JECA funding so as to undertake their activities and to some extent reduce their efficiency as JECA itself usually seek external support.

Recommendation

- Dubois (2001) suggests that JFM agreements should include provisions requiring that a small proportion of revenues be allocated to NRM/conservation activities. This would help in achieving some degree of self financing of activities related to JFM agreements. For example, hire transport to collect confiscated products, attending meetings, patrols, support fuel for District Forest Officer
- **6.6. Workshop:** at the end of field data collection and analysis, the evaluation missions wanted to prepare a short presentation in a workshop that involved village representatives from Jozani core area and South Jozani villages and DCCFF staff. The aim was to get additional information and clarification from these groups. Through discussion, the workshop participants were able to give out what they thought could be done to improve PFM and other issues related to it. Generally, workshop participants addressed thirteen critical issues that need attention for PFM and RUMA. The table 2 below describes each in detail.

Table 4: Concerns from Workshop Participants

Concerns /Issues	Description of the Concerns/ Issues
PFM and Resource Control	 In addition to the general history how the village enter into PFM as described in box 1 above, the representative from Cheju village agreed that PFM is important as it empower villagers manage their forest resources. He posed 'wasia' to the wider area villages that the only solution for proper control and conservation of their own natural resources from haphazard utilization is to have PFM and strong RUMA. It will boost their livelihood betterment, as rural community. Village leader (Sheha) of Paje thought that PFM could not be worked at his villages because all neighbouring villages have closed their forest, people are coming from different places to invade their forest, as well as poor support from police officers when catch the culprits. He asked the workshop members to advise him on how he could resolve the current situation. Problem of boundary and revenue also mentioned here. He was advised that se should not be disappointed and his Shehia council should be close with DCCFF and at the same seize the confiscated products and keep at Sheha's home as the law permits. Boundary and revenues collection will be solved when developing resource use management agreements.
Independent Lawyer	Representative from this village Mr. Mbaraka requested to have a lawyer to assist them on the management of RUMA. He said the DCCFF is using government lawyers and Legislation, so it also important villages with RUMA to have their own lawyer whom will assist in RUMA interpretation and who specifically taking care all charges resulted from the resources management activities.
Irresponsible forest officers	All most all village representatives complained about lack of cooperation and accountability from forest officer including forest guards. The forest guards are not really performing their roles and responsibilities as required; they assist offenders to exploits village forest resources; perhaps because they are not native residence of the said villages. So in order to improve efficiency, they asked the DCCFF to employ forest guards who are natives of the concerned villages.
Boundary and Resource use conflict	Some of the villages presented their concerns on the problem of boundary and resource utility. Villages experienced To make sure that the community forests bordered between two or more villages are safe; it is recommended that such bordered forest area between neighboring villages are protected and closed for any kind of uses. It was also learned that, the problem appears to be critically in villages of different district authority rather than villages in the same district authority

Logistics	Most of the villages faced challenges when found wood in the forest and need to collect them. First, they do not have car (even bull cart) for collecting such materials. Second, the communities are not ready for their vehicles to be used to collect seized forest products. They wished and recommend to be provided vehicle which specifically set aside to transporting the confiscated products from the forest. It was advised that, the VCCs should establish a network between them and between Jozani-Chwaka Bay National Park so that, the only available car could be use properly when such cases happening. This is important as it is impossible for each VCC to have own vehicle.
Awareness rising and training for PFM	It was learnt during the workshop that, forest guards and general community at village level lack conservation awareness to support PFM. Experience from Muyuni shows that, villagers even mobilized not to appoint Mr. Said Mwinyi as VCC secretary because of his commitment in forest resources conservation. It was recommended that, employed forest guards and communities should be provided with trainings to improve their understanding on forest resources management.
Forest for PFM	In principle it is well known that PFM is initiated in well established forest where community could benefit from the start. However, this was different from Mtende and Kibuteni villages. Representatives from these villages noted that they practiced PFM in areas with thickets and shrubs; unbelievable now have becoming the forest of good status. This is could be taken as a lesson lessoned and best practice that PFM not necessarily established in a high closed forest.
Village Leader's Commitments	Other crucial contribution from participants focused on the commitment of the village leaders on the effective use of regulations as stipulated in the RUMA and avoids all loop holes which might cause unnecessary inconvenience in the implementation of RUMA e.g. Political issues.
Women and PFM	Women in forest matters are considered by many as unfit. Lesson learned from Mtende and Cheju villages shows the efficient use of women as "camouflage" forest guards could results effective PFM. These village asked women to get information on various forest matters such as wood cutters movements, location of cutting, fire incidences, piled woods etc and report to VCC authority when come back from their normal daily activities such as agricultural activities, collection of firewood and medicinal products etc. VCCs use this information to develop strategies for patrol, forfeit forest products and sometime catch concerned culprits.
Outsiders against PFM	Almost all villages around Jozani core and the new south Jozani project on cried and claimed to Makunduchi community. They are most destructive and do not respect other village forest resources. They could enter into the forest, cut wood (firewood and poles) without village permission. When complains sent to their district authority no action is taken on them. This disappointing other people

	efforts on PFM. Thus, it is proposed the inclusion of Makunduchi village in the project programme. This
	could be done by few members from Makunduchi environment conservation committees being
	accommodated in the advisory committee that required to be formulated.
	The current approach of each village to have its own PFM and RUMA seem to create environment
	susceptible for community conflict on boundaries and resource exploitation. It is proposed that, the idea
Unified PFM	of having "zonal forest ecosystem management/conservation" should be given priority when revising
Cliffied 11 W	the existing RUMA and when developing the new ones. For example, Chwaka, Cheju and Unguja Ukuu
	Kaebona villages which have the same forest ecosystem could have one PFM under one VCC with
	representative from three villages. This could be established as a pilot programme.
	Workshop participants warned that, VCCs are getting many problems on RUMA implementation and
DCCFF and JECA	DCCFF and JECA have provided less contribution. There is gap and is widen. It was expected that,
commitments on PFM	forest authority could visit the villages and talk with community, but this is not done. It was also learned
	that, the some forest officer prepared a fuel budget to support follow up of RUMA implementation but
	has not obtained. Some participants were questioned if higher forest authority really wants a PFM on
	ground. JECA as NGO on the other hand were supposed to advocate at various government levels on
	various issues facing VCCs on their PFM activities, it still remain idle and lead to the implementation of
	RUMA to be some how slow.
	It was in the mind of most workshop participants that efforts have not been done much to publicize
PFM and RUMA	PFM and RUMA to the general public. Thus, workshop participants asked DCCFF and JECA to
publicity	publicize the RUMA programme as other institutions do when promoting their programmes for example
	HIV/AIDS and Malaria projects. This will enhance community awareness and might support the
	programme

Concluding remarks

Participatory Forest Management Initiatives around JCBNP has been seen by many communities and professional staff as means to safeguard community forest resources. It provides with communities empowerment to plan and decision making in the general utilization and management of the resources. The development and implementation of RUMA showed signs of shortfalls that need to be addressed especially for the new South Jozani Project. Evaluation revealed benefits sharing as crucial component in the success of PFM. There is no shot cut for South Jozani villages as revenue generation say from tourism is relatively limited there. Further study is required to identify potential opportunities for tourist attractions in these areas. DCCFF and JECA have to work quite closely with VCC if the aim and objectives of having PFM and RUMA is to be fulfilled.

Appendix 1: Term of Reference (ToR)

Introduction

The Participatory Forest and Wildlife Conservation Project (PAFOWCOP) is a partnership initiative between CARE international in Tanzania; The Department of Commercial Crops, Fruits and Forestry (DCCFF); and the Community-based Credit Development Organisation, JOCDO. This two year project has been established for the purpose of completing the resource use management agreements between the Revolutionary Government of Zanzibar and eight respective community groups located around South Jozani-Chwaka Bay National Park (JCBNP). Prior to this project between 1995 and 2003, CARE and DCCFF had carried out an intensive work to accomplish a similar process for eight 4villages around JCBNP. As an outcome, eight resource use management agreements within the target were successfully developed, agreed and signed by respective parties.

With such an experience, this piece of consultancy is aimed at scientifically testing the participatory forest management initiative around original Jozani area to determine the "best practices" that will function as a model for future projects throughout the Hotspot. "Best practices" will be determined by a thorough evaluation of original participatory forest management projects mentioned above and the preparation of a lessons learned report.

Objective

This consultancy is aimed to scientifically test participatory forest management through eight original villages around JCBNP, determine "best practices" and provide recommendations for finalizing a similar process for the new site around South JCBNP.

Activities

The consultant will be required to assess and document the following:

- 1. The process and protocols used to develop and agree on the resource use management agreements (RUMA) for the Jozani original area.
- 2. The modalities used to build up village conservation committees (VCC), Wildlife hunting association (WHA) and the Jozani Environmental Conservation Association (JECA).
- 3. The quality of stakeholder participation and relationships in forest and wildlife Conservation, based on 2 above.
- 4. The effectiveness of implementation of resources use management agreements (RUMA) around Jozani core area to explicitly explore: 1. knowledge about the management agreements to community; 2. the existence and effectiveness of community forest patrol by community members; and 3. responsibility taking among community members on one hand, and the government on the other.
- 5. The level of transparency in negotiations and financial dealings between government and communities and between VCCs and the community conservation association (JECA). Also assess quality, and modality of benefits sharing among communities participating in forest and wildlife conservation programs around the JCBNP.
- 6. The level of gender sensitive participatory governance in increasing participation of and benefits to women.

-

⁴ The villages are Bwejuu, Charawe, Cheju, Chwaka, Kitogani, Pete/Jozani, Ukongoroni and Unguja Ukuu.

- 7. The level of capacity building work to civil society organizations, especially the VCC, WHA and JECA
- 8. The shortfalls of the original process for developing RUMAs around JCBNP.
- 9. The best practices and recommend the way forward for the development of resource use management planning process for South Jozani villages included in this program.

Outputs

The consultant will be required to produce a lessons learned report revealed from "best practices" for participatory forest resource management initiative around Jozani-Chwka Bay National Park.

Appendix 2: Evaluation timetable

Timeframe Dates	Activity
20th June 2006	Field work plan preparation • Production of questionnaire • Organize field team
21st June 2006 to 22nd June 2006	Literature Review • Visit Jozani and JECA office • Visit CARE office • Internet services
23 rd June 2006 to 26 th June 2006	Primary field data collection Interview with chairman/secretary of VCCs, WHA and JECA Interview with VCC, WHA and JECA committee members Interview with DCCFF selected official Interview with individual community members in selected villages Villages selected: Kitogani, Chwaka, Pete/Jozani, Unguja Ukuu, Ukongoroni and Cheju
27 th June 2006 to 28 th June 2006	Data analysis
29 th June 2006 to 30 th June 2006	Report and first draft production
1st July 2006 2nd July 2006 Total	Workshop for presentation of findings Accommodating input from workshop and final report writing and submission

Note: Effective working days = 12 days

Appendix 3: Questionnaire

1. The process and protocols used to develop and agree on the resource use management agreements (RUMA) for the Jozani original area.

Questions:

- Who initiate RUMA in your village
- Explain how RUMA was developed in your village
- How community came into acceptance and agree on RUMA
- Why did community accept and agree on RUMA
- What motivate community to accept and agree on RUMA
- 2. The modalities used to build up village conservation committees (VCC), Wildlife hunting association (WHA) and the Jozani Environmental Conservation Association (JECA).

Questions:

- Who motivates the establishment of
 - o VCCs
 - o WHAs
 - JECA
- Explain method (s) used to formulate
 - VCCs
 - WHAs
 - JECA
- 3. The quality of stakeholder participation and relationships in forest and wildlife Conservation, based on 2 above.

Questions:

- What procedures were used to get members to join with:
 - VCCs
 - WHAs
 - JECA
- Who are key members of:
 - VCCs
 - WHAs
 - JECA
- What are qualities/criteria for a village person to be a members of:
 - VCCs
 - WHAs
 - JECA
- 4. The effectiveness of implementation of resources use management agreements (RUMA) around Jozani core area to explicitly explore: 1. knowledge about the management agreements to community; 2. the existence and effectiveness of community forest patrol by community members; and 3. responsibility taking among community members on one hand, and the government on the other.
- 4.1 Knowledge about management agreement

Questions:

• What do you know about management agreements

How did you come to know management agreement

4.2 The existence and effectiveness of community forest Patrol by Community Members

Questions:

- How community forest patrol organized and conducted
- How often community participating in forest patrol
- Where community conduct forest patrol
- What motivate community to participate in forest patrol

4.3a Responsibility taking among community members

Questions:

- Do community have any line of responsibilities in RUMA implementation
- Who set up those responsibilities
- At what level did you participate in setting out RUMA responsibilities
- How RUMA is ensured its effectiveness

4.3b Responsibility by the government

Questions:

- What are responsibilities the government have in RUMA implementation
- At what level the RUMA responsibilities are expected to be implemented
- How RUMA is ensured its effectiveness
- 5. The level of transparency in negotiations and financial dealings between government and communities and between VCCs and the community conservation association (JECA). Also assess quality, and modality of benefits sharing among communities participating in forest and wildlife conservation programs around the JCBNP.

5a Transparency in negotiation and financial dealings between Government + Community

Questions:

- At what level are you involved in negotiations and financial matters
- Who participating in negotiations and financial discussions
- How do you consider the process of negotiations and financial discussions

Transparency in negotiation and financial dealings btn VCCs and JECA

Questions:

- At what level are you involved in negotiations and financial matters
- Who participating in negotiations and financial discussions
- How do you consider the process of negotiations and financial discussions
- 5c Quality and modality of benefit sharing among community participating in forestry and wildlife conservation program around JCBNP

Questions:

- What system is used to distribute and share benefit among community members
- How often the benefit is shared among the community
- At what has been the role of community in setting out the system of benefit sharing
- 6. The level of gender sensitive participatory governance in increasing participation of and benefits to women.

Questions:

- At what level women are involved in forest management
- How women were participated in RUMA development
- What benefits are shared among women
- 7. The level of capacity building work to civil society organizations, especially the VCC, WHA and JECA

Questions:

- Who is managing VCCs, WHAs and JECA
- What make you good to manage VCCs, WHAs and JECA
- 8. The shortfalls of the original process for developing RUMAs around JCBNP.

Questions:

- What was lacking when developing RUMA in your village
- Is the process used to develop RUMA agreed and accepted by community
- 9. The best practices and recommend the way forward for the development of resource use management planning process for South Jozani villages included in this program.

Reference

Alden Wily, L,. and S. Mbaya (2001): Land, People and Forest in Eastern and Southern Africa at the Beginning of 21st Century. The Impact of Land relations on the role of communities in forest future. IUCN eastern Africa Programme. Nairobi, Kenya 313

Dawn Hartley and Hamza Rijal (2003): Final Project review: Jozani-Chwaka Bay Conservation Project Phase III

Dubois and Lowore 2000, The journey towards collaborative forest management in Africa: Lessons learnt and some navigational aids. An overview. IIED Forestry and Landuse Series. No.15

Edmund Barrow, Jeanette Clarke, Isla Grundy, Kamugisha-Ruhombe Jones and Yemeserach Tesseme (2002): Analysis of Power and Responsibilities in Community involvement in Forest Management in Eastern and Southern Africa. Forest and Social Perspective in conservation No.9 IUCN Eastern Africa Programme

Liz Alden Wily (2002): Participatory Forest Management in Africa: An overview of Progress and Issues (unpublished)

Olivier Dubois (2001): Facilitation of the Participatory Review of the Joint Forest Management Component of the CARE/DCCFF Jozani-Chwaka Bay Conservation Project, Zanzibar, and the Planning Process of the JFM Component of the CARE-FBD Misitu-Yetu Project, Tanzania (Final report). September 2001

Soud Mohammed Jumah, Tamrini A. Said & Omar F. Hakim (2004): Resource Use Conflicts between Agricultural Production (Farmers) and Jozani and Chwaka Bay National Park Authority. Forestry Technical Paper No. 154. Paper Presented in Scientific Conference on Environmental. Agriculture, Environment and Poverty Eradication. At White Sands Hotel. 28th – 30th September 2004