

TSUNZA CONSERVATION AND DEVELOPMENT PROGRAMME

Project Progress Report prepared by Ted Majaliwa Kombo, Project Coordinator

INTRODUCTION

This final narrative project progress report contains the experiences of the community based forestry project in Tsunza village of Gandini location, This project has been implemented by Tsunza Conservation and Development Programme - TCDP in collaboration with the Forest Department, the Fisheries Department, the Provincial administration, East African Wildlife Society-EAWLS, Kenya Marine Fisheries Research Institute-KMFRI, Coast Development Authority- CDA, Mangrove Action Project, Both ends organization. National Museums of Kenya, Wildlife clubs of Kenya, Integrated Coastal Area Management initiative in Kenya, the Wetlands Program of the Royal Netherlands Embassy- Nairobi, Kenya Wildlife service. Mangrove licensees, local commercial interests and the local communities of Tsunza.

The report summarizes, the progress made during the period Jan 1999 – May 2001 when funding was first made available by the Swedish Society for Nature Conservation, gives a more detailed account of progress made during Jan 2000 - May 2001, evaluates the project implementation against objectives, and inputs and reviews the projects, outputs, sustainability, problems and changes. The report then draws conclusions and recommendations based on the lessons learnt from successes and failures during the life of the project in its phase I (1999-2000).

The report concludes with an accounting section, which provides details on financial expenditures made to accomplish the project. An overview of all staff members and steering committee members, a list of all project reports, publications and other output like photos and video documentaries , excerpts of the publicity about the project as well as a detailed financial expenditure statement and maps of the project area and target villages given as appendices. The project coordinator has prepared this report during July 2001 in Consultation with the project management committee with contributions from project members, interns and project steering committee.

It is my sincere hope that this report will in the long run contribute towards a better and more integrated management of the remaining mangroves forest resources in Tsunza and Kenya in general.

PREPARED BY

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EXECUTIVE SUMMARY

This final report provides a description of the progress, an evaluation of the implementation and a summary of the conclusions and lessons learnt of the project "Community Mangrove Rehabilitation, Conservation and Sustainable Management" jointly implemented by SSNC and TCDP during the first two years of its implementation.

The report will emphasize on the period preceding the funding phase with a background analysis of the pre project scenario being cursorily highlighted to justify the approach followed in this project.

Firstly, the report provides a summary of the progress made by the project during the first 2 years of its implementation (1999-2000) with details on the background and aims of the project, the structural and institutional framework, the approach and methodology and some of the major achievements. For further details reference is made to a number of administrative reports which were produced earlier. Subsequently the report gives a detailed account of progress in project activities under each of the three project components in the past complete with an overview of meetings and workshops attended by Project staff and participating villagers.

The report then embarks on an evaluation of project implementation by evaluating the effectiveness, performance against objectives, efficiency, (efforts/achievements against inputs) sustainability of project impacts and an overview of some of the problems and changes encountered during project implementation. This section of the report concludes that the project has in the past 2 years achieved most if not all of its three general objectives satisfactorily, that it has delivered nearly all of the expected outputs as well as a number of additional (ones) in time within the limits and capabilities of the Project coordinator. More than 95% of the project budgets was utilized while there was no major over or under- spending.

NO financial irregularities were reported by financial auditors within the 2 year funding period under review and the estimated inputs of staff, equipment and time allocation have all been proven adequate for a successful implementation to completion of the project.

Mangrove restoration costs have been calculated on a hectare basis at three different cycles (with and without project staff and operational costs as well as including related costs of community organizing, awareness building and livelihood development) and compared well with figures reported from elsewhere. It is argued that the costs for mangrove restoration will be outweighed in the medium term (5 - 10 years) by the economic benefits derived from restored mangrove resource. The sustainability of the project impact is believed to be great, due to significant and meaningful community participation establishment of a restored mangrove forest resource has significantly enhanced environmental awareness, improved levels of institutional co-operation and support, socio-economic spin-offs from alternative livelihood activities and continued support from SSNC and indirect policy and legislation support by the Kenya Government.

The project met a number of problems and difficulties during the last 2 years of implementation including gaps in expectations between implementers, donors and beneficiaries, reluctance towards cross-sectoral collaboration and sharing between different agencies, physical constraints to the success in mangrove restoration, limited meaningful participation by the communities, conflicts and tensions within participating communities, unforeseen impacts from major development projects and the lack of voluntary managerial skills within the organization, in addition the project has had to accommodate indirect effects from a major economic crisis in Kenya which saw the shilling depreciate considerably compared to the dollar and other world currencies.

The report ends with a number of conclusions and lessons learnt from the project which underline the value of community participation in environmental action and rural development work, but at the same time points out the difficulties and limitations of such an approach. The building up of trust / and achievement of effective participation has taken a considerable amount of time, patience and flexibility, but once established it has formed a crucial contribution to longer-term process of environmental and socio-economic improvements. It built a strong sense of ownership and commitment therefore ensures the long- term sustainability of the mangrove rehabilitation and associated economic development initiatives.

The report concludes with an accounting section and a number of appendices which provide an overview of project staff, steering committee members and a management team, project reports and other outputs, publicity in relation to the project and maps of the target villages.

Progress of the Project

In accordance with the general reporting format as stipulated in the terms of agreement between SSNC and TCDP, reporting would be through monthly and quarterly implementation schedules, statements of expenditures, progress and financial reports, monthly and quarterly feedback reports and supervision visits. This final report is an attempt to report the progress of the whole period covering January 1999 - December 31 2000.

Summary of the Progress made during January 1999 - December 2000.

Background

Rapid but often uncontrolled economic development in Kenya during the past 3 decades has led to widespread environmental degradation and marginalisation of rural communities. Along the coast, commercial logging of mangroves for use as fuel wood in industrial concerns e.g. brick factories and industrial and urban development have been responsible for widespread degradation and loss of mangrove forests. Meanwhile, the fish-catch and incomes of many coastal fishing communities have drastically declined. This loss of mangroves represents a grave loss of biodiversity and source of income for thousands of coastal fishing communities, which traditionally use mangroves as a source of food, timber and other products on a sustainable basis. The lack of involvement of local communities in land use, issues related to resource ownership and land tenure rights, the open-access nature of

coastal resources and limited awareness of the benefits and functions of mangroves have all contributed to this problem. The long term environmental and socio-economic impacts of the widespread mangrove degradation are now gradually emerging and the urgent need for rehabilitation of the degraded forests and proper management of the remaining forests is generally recognized.

The Project

The project supports Tsunza Conservation and Development Programme hereafter referred to as TCDP in its efforts of strengthening peoples organizations in this fishing community with the aim of achieving sustainable economic development, conservation of the coastal ecosystem and the promotion of community rights.

The project also supports TCDP's efforts to network with other NGO's and grassroots organizations working on community management of mangrove forests areas in Kenya and East Africa in general.

The Roots

TCDP has worked with coastal rural communities in Kwale district since 1997, when with support from the East African Wildlife Society and Kenya Marine Fisheries Research Institute, a project funded by the Swedish Society for nature Conservation for the establishment of a community mangrove Forest was launched.

This initiative supported activities mainly in Gandini location of Kinango Division of Kwale district where TCDP had established strong cooperation with the local fishing community and its work was widely recognized. This year TCD P is applying for further support from the Swedish Society for Nature for the present 2 Year project, which has/ will enable TCPD to expand its activities to other neighbouring fishing Villages both in Kwale and Mombasa Districts.

PROGRAMME OBJECTIVES

The programme aims at strengthening local fishing communities organizational skills and self reliance as a means to promote a model of sustainable and ecologically compatible development that may be valid along the entire Kenyan Coast.

Working towards this objective TCDP aims to :-

1. Strengthen the fishing community's capacity to affirm their own rights over coastal resources.
2. Support income generating activities that are resource specific to each village based on self-reliance and sustainable exploitation of coastal resources including mangrove FORESTS and community fisheries.

3. Strengthen the programs capacity to expand its intervention area and to support its role as a pioneer national and regional focal point and facilitator for participatory management of coastal resources.

The Activities

1. To support the establishment of community forest management in Mangrove areas, the relinquishing of destructive fishing practices, the protection of coastal habitats such as coral reefs and sea grass beds and forging co-operation between communities and government institutions.
2. To strengthen community leaders and peoples organizations in coastal fishing villages by facilitating and promoting group discussions within communities and among neighboring villages and exchange of ideas and experiences.
3. To organize seminars, workshops and other awareness raising activities about local coastal resources and fishing community issues amongst coastal communities, student and teachers, academics, government officials and the public at large.
4. To facilitate visits to the coastal fishing communities from other grass root organization such as Researchers, Academics, the media and interested parties from Kenya and abroad to facilitate the exchange of experience and ideas.
5. To support artisanal fishermen's efforts to control and manage their traditional fishing grounds against illegal encroachment and the use of illegal fishing gear.
6. To initiate and support community economic activities such as sustainable small scale fisheries and aquaculture (crab farming) , handicraft production and saving groups
7. To undertake participatory research on community resource and livelihood support systems.
8. To strengthen the recently established small scale fishermen cooperative of Tsunza through which the fishermen may voice they concern, advocate their rights, establish closer cooperation and organize grassroots development activities.

The Programme

Tsunza Conservation and Development Programme is a community based initiative situated in Gandini Location of Kinango Division of Kwale District which is addressing the problems of mangrove loss and fisheries decline by working directly with. and helping, to empower the coastal communities dependent upon the healthy mangrove ecosystems with financial assistance from the Swedish Society for Nature Conservation, technical assistance from Kenya Marine and Fisheries Research Institute and the East African Wildlife Society in collaboration with the Forest Department, Coast Development Authority, National Museums of Kenya and the School of Environmental Studies, Departments of Moi and Egerton Universities. The project does not have salaried staff and depends on volunteers. The present coordinator and his assistants are local villagers and started ad volunteers.

Since its inception in 1996, TCDP has pioneered grassroots methods of enhancing local community involvement in management of coastal resources that has to date seen the creation of 3,000ha. of a community mangrove forest. Within Tsunza and Mwache gazetted forest reserves in Kwale and Mombasa Districts.

TCDP has developed a methodology of village-level organizing that has been very successful and these principles of community organizing have been integral to this project. The initial organizing process took a considerable length of time. A lot of time was spent in the villages, (by project volunteers who had initially themselves been trained on PRA techniques, -Participatory Rural Appraisal) socializing. One of the most effective tools that the project used was conducting village meetings or public barazas. During these occasions, the groups or gatherings were asked to draw three pictures. The first picture was of the coastal area around the villages as it appeared at the present (during the time of drawing the picture). Interviewing the elders of the gathering or meeting and asking about the condition of the mangrove forest maybe 40 years ago derived the second picture. After these 2 pictures were drawn it became easy for the villages to point out problems or issues that they liked to resolve. To help clarify these issues we started on a third mural of the future, asking them to draw a realistic yet visionary or ideal future.

This process managed to get the youth to understand the extent of the degradation that has taken place over the years.

Through its grassroots community work, TCDP ensures that local community developments are both sustainable and equitable. To meet these goals local support and direct involvement of resident communities in those important resource management decisions is imperative. TOP's work has won regional acclaim in East and Central Africa. It involves local fishers and farmers in taking a more responsible approach in managing their local resource base, thus helping to ensure that their livelihoods and traditional cultures are protected.

Structure and Institutional framework

The project is being carried out by Tsunza Conservation and Development Programme and the Swedish Society for Nature Conservation of Sweden as the main implementing agencies with support from the Forest Department, East African Wildlife Society and the Kenya Marine and Fisheries Research Institute. The project activities were divided into three components as follows:

Component I: Rehabilitation of degraded Mangrove Forest Areas

This component aimed to develop and adopt a model approach for community participation in mangrove resource management and rehabilitation. Tsunza Bay has been the focus of mangrove replanting, environmental awareness and community development activities. Three villages in Tsunza Bay were selected as the target communities for the activities of this component: Tsunza, Dzivani and Lutsanganiimteza. Participation by village representatives was achieved by their involvement in workshops, meetings, planning and implementation of project activities.

Component 2: Awareness raising, Training and Information Dissemination

This component aimed to enhance the capability of local people, community organizations and authorities in inter-sectoral development planning and sustainable mangrove forest management through training programs. The component also aimed to share information and experiences gained in this project with all relevant and interested agencies and communities through a strong information dissemination programme using media, newsletters and radio broadcasts.

Component 3: Project Management, Operation and Capacity Building

This component aimed to ensure a productive and efficient running of this project, that fulfilled all reporting requirements (in time) and maximized outputs and to refine management practices of TCDP to improve its efficiency and effectiveness in the planning and implementation of projects and conservation activities.

Overall planning and implementation was coordinated by a project management team headed by the project coordinator, which included members from the collaborating institutions as well as representatives from the three target villages. Annual workplans and interim progress reports were presented to and reviewed by a project steering committee which consisted of representatives from government, local authority, NGO's and 3 representatives from the local communities around Tsunza bay.

Approach and Methodology

The project staff according to operational objectives and time frames agreed in an annual workplan carried out the activities under all the components. The field activities under most of the Components followed a different and more flexible style of working, guided by the following four main principles:

- Effective community participation is crucial for sustainability of project impacts
- Environmental and socio-economic improvements should go hand in hand.
- Facilitate ideas of the community rather than of project staff (local ownership)
- Focus on the participatory learning process rather than on outputs.

The approach followed in all these component was one of learning by "trial and error" based on the building of trust and relationship within the community.

Evaluation of Project Implementation

In accordance with the initial project proposal and the consequent work plans for 99-2000 one major evaluation would be done last year (2000) consequently this paper aims to provide a retrospective assessment of the performance of the project during last year. This evaluation has been carried out by the project management team (lead by the Project Coordinator) and as such is merely a self-assessment by the project team rather than an independent review of the projects beneficiaries or an external evaluation team, it should be noted however that several institutions involved with the project have conducted their own independent evaluation missions and the resulting reports will be directly sent to the SSNC under confidential cover to provide an external evaluation assessment. The report evaluates the

effectiveness of the project by a strategic assessment of project performance against the overall objectives, then discusses the efficiency of the project by a tactical and operational value of the degree, rate and costs at which the resource inputs (money and time) have resulted in the expected outputs and then draws some conclusions of the sustainability of the impacts made by the project. The paper concludes with a summary of the main problems encountered in the project implementation, changes made during the years to its objectives, inputs or approach.

Evaluation of Effectiveness: performance against objectives

The initial project proposal and the General Annual Work plan January 1999 - December 2000 defined wider objectives of the project to achieve the general long-term goal of the project. In the following the achievements of the project will be summarized against the 3 general objectives outlined in the original proposal and general work plan.

Objective 1: To Rehabilitate the Degraded Mangrove Forest Sites

Substantial achievements were made in one of the project areas where an area of approximately 100 ha of severely degraded mangroves was made available for the community (after discussions with and approval by local government and the Forest Department). This has now been planted with approximately 2 million mangrove seedlings showing good survival rates to date. A detailed land use plan for the community mangrove forest area at Tsunza has been developed through an intensive participatory consultation process involving a mapping exercise of the village and its environment by the community. Similar comparable environmental land use maps and management plans were prepared with the target communities during the Resource Inventory survey conducted during this period. The implementation of such community based management and development plans proves to be a learning process, which requires patience and flexibility. Placing the local community in a central position in decision making and planning can have its own drawbacks but may prove the most sustainable for the long term because it builds strong local commitment, as demonstrated clearly in the ongoing success story of the past 15 years of work by the NGO Yadfon Association in fishing villages in Trang province of Southern Thailand which the project coordinator visited during the life span of this project in its initial phase year courtesy of MAP an American based NGO a firm project ally and collaborator.

Objective 2: To raise awareness and sustain community commitment and stewardship in conservation and sustainable management of mangroves and coastal/marine resources.

This objective has been implemented to a great extent. Numerous awareness building activities were carried out during the period under review. The projects collaboration in assistance to efforts by local school teachers, officials of the Wetlands Programme of the Kenya Wildlife Service/Royal Netherlands Embassy, Wildlife clubs of Kenya, Kenya Sea Turtles Conservation Committee, National museums of Kenya, Environmental Trust of Kenya, East African Wildlife Society, Friends of Fort Jesus, IUCN, the Forest Action Network, the East African Environmental Network, the Rotary Club of Kilindini and District Office of the Education Department towards the development of

an environmental school curriculum involving 3 pilot primary schools of Tsunza, Dzivani and Lutsangani and later extended to cover 6 other schools in Mbuguni, Chizini, Mwamdudu Kiteje, Mteza and Miritini World Bank primary schools, all within the project areas has gained momentum and is expected to yield far-reaching impacts on the children's perceptions and awareness of environmental issues in Tsunza. The awareness activities have addressed both school children and villagers as well as local media, businessmen, religious leaders, government officers, Angambi and other decision-makers. The impact of such awareness activities is difficult to measure, but it is anticipated that they will contribute to a long-lasting attitude change among the local people and their leaders around Tsunza towards the appreciation of the values and functions of the environment and a better understanding of the human-environment interactions in Tsunza. This will undoubtedly contribute towards the achievement of the long-term goal of sustainable development and wise-use of the local wetland resources in Tsunza and its environment.

Objective 3: To facilitate and establish site-specific collaborative approach for mangrove forest and other coastal marine biodiversity resource conservation and management action plan.

The establishment of a project steering committee comprising of the following agencies.

- . Kenya Marine and Fisheries Research Institute
- . Forest Department
- . East African Wildlife Society
- . Kenya Wildlife Service
- . Coast Development Authority
- . National Museums of Kenya
- . Fisheries Department
- . Provincial Administration
- . ICAM process in Kenya

has been one attempt towards a more formal cooperative framework for this purpose. The commitment by some members of this steering committee at the beginning was however not been equally supportive of the project and its wider approach however with time this position has tremendously improved. Furthermore the committee has of late not been very pro-active on some key issues facing the bay (e.g. the dredging and pollution issues) and its future role after the end of the current project in December has now been clearly identified. Informal cooperation at the field level (between Forest Department, KMFRI, villagers, schools and other community organizations) has been particularly fruitful and should continue sustainable after the current project span. The successful networking and support by the local government to the efforts of the villagers (with help from the project) to patrol the area mangrove forests for illegal mangrove cutters has been one such example. In several multi-sectoral meetings,, workshops and seminars on mangrove management in Tsunza representatives from government, NGO's private sector, academic institutions, media and grassroots organizations jointly identified the problems, strengths and weaknesses and formulated objectives and a joint strategic Action Plan (which culminated in the ongoing indefinite ban on the harvesting and exploitation of mangrove resources) for better mangrove management.

Initiated cooperation between the Mombasa Bricks and Tiles factory management, Forest Department, TCDP and local communities ,in a follow-up project in Mwache and Bonje in project area 3 for which a detailed proposal has been developed in the framework agreement between the wetlands Program of the Royal Netherlands Embassy in Nairobi may prove to be one of the fruits of these attempts.

Meanwhile numerous networking efforts among communities, NGO's projects, government agencies and universities were conducted throughout last year which have led to increasing levels of cooperation, communication and sharing and will continue to pay off after the current project phase.

Evaluation of Efficiency: Outputs/Achievements against inputs.

The 1999-2000 Annual Work plan summarized the inputs and outputs of the project. In the following, an evaluation will be done of the outputs (to what degree were the budgeted inputs actually used) and the efficiency (to what degree) have the outputs been achieved through an efficient use of financial, human and material resources.

OUTPUTS

Expected outputs (Annual Work plan)

Actually achieved outputs

Increased hectareage of replanted mangrove forest in site specific project areas. Achieved. Over 100ha. of mangroves planted Collaborative linkages and consultation established between the community and other stakeholders and or target group. Achieved.

Rapid Resource Appraisal Achieved. One Final report made.

Detailed biophysical resources and Socio-economic Assessment and Management appraisal undertaken and documented. Achieved (appendix in Report) Reduction in mangrove forest degradation. Achieved. Exploitation ban in place to-day.

Increased mangrove and marine resources and biodiversity (including fish stock, birds and plants) Achieved. 2.5 million trees planted. Some species of birds and other marine life, which had disappeared, have reappeared.

Reduction in the illegal clear felling of mangroves and other destructive practices. Achieved. Ban on exploitation in place.

Reduction of legal but destructive mangrove and marine resource exploitation practices. Achieved. A review of current licensing procedures for mangrove licenses, outlawing of destructive fishing practices and equipment, A well informed and sensitized community on matters related to conservation and sustainable management of mangrove and other marine resources. Achieved A well informed and sensitized secondary stakeholder (Industrial users, and

polluters, licensees, administrators and law enforcement agencies Achieved to a certain degree.

Positive actions that are environmental friendly being undertaken by all stakeholders Achieved - see periodic narrative reports for Oct. - Nov. - Dec.

Enforcement of laws and regulations pertaining to mangrove forest conservation and marine resource exploitation. Not achieved due to lack of adequate manpower and equipment.

Collaborative site specific conservation and management Action Plan developed and to be implemented .Not achieved due to lack of resource inventory data.

Efficiency:

Efficiency is a measure of the productivity of the implementation process: i.e. to what degree the outputs achieved derive from efficient use of financial, human and material resources. In principle, then it means comparing inputs against outputs. Two problems however occur if one attempts to evaluate efficiency of this project. Firstly, many achievements relate to changing attitudes and increased awareness, which are difficult to measure and were not quantitatively evaluated. Secondly, there is a lack of comparative standards against which to measure the cost-benefit relationship of the project, which includes both environmental improvement and socio-economic development objectives.

When looking at the costs for mangrove restoration, one could relate the successfully replanted 100 ha. with either (1) the direct costs used for there planting itself (Kshs.713,156.50 including digging of canals to resume tidal flooding in some areas (see project reports) (2) the direct planting costs plus a percentage say 20% of this component to cover incidentals and other unforeseen activities like fencing, clearing of sites and barnacles or (3) the total component including indirect costs for organizing participation by the community and enhancing their awareness, self-reliance capacity and alternative income approximately Kshs.950,000.00 This would lead to the following figures for the average costs of mangrove replanting carried by the current project: (1) US\$10,000 (2).US\$12,000 (3) US\$15,000 (note these figures have been calculated by converting the total expenditures from Kenya shillings to the US dollar using average exchange rates prevalent during the period). The range of cost-estimates for planting costs alone i.e. 1 and 2 fall below the range of costs quoted in literature for mangrove restoration elsewhere in other regions. The costs of mangrove restoration can also be related to the economic value that is related to mangrove forests in resource valuation studies, which have not been done in this part of the world. Such figures when available do however vary widely and depend partly on local circumstances and individual interpretation of the valuers. Despite the wide variations, these figures clearly indicate that the economic values of mangrove forests can be considerable.

Based on current local prices one could calculate that within a few years (2.5 million trees) the 200 ha of replanted mangroves in Tsunza will represent an economic benefit of over 50 million shillings, which in itself might be more than sufficient to justify the investment for the restoration costs made in this project. On the whole it is anticipated that the extra investment in environmental awareness and education combined with training and organization of the participating communities will have significantly increased the willingness to conserve the remaining mangroves in Tsunza and to ensure sustainable management of the restored mangroves in the target villages in the coming year.

In the absence of quantitative socio-economic data concerning the project area at the start of the project, it is difficult to evaluate the impact the project has had on the socio-economic status of the villagers. The large-scale macro environment of Kenya, however, has gone through its worst economic crisis in history during the initial implementation period of this project which makes it likely to assume that the absolute spending power of the villagers is more likely to have decreased. Some relative contribution towards an achievement of their self-reliance may however have been achieved by the present project, but there is no data to support this quantitatively. The main benefit from project support to alternative livelihood activities (beekeeping, livestock, broom making and a cultural dance troupe) seems to have been that it has attracted the interest of the villagers to participate in the project and that it is changing an atmosphere of poverty and despair into one of hope and willingness to struggle for a way out of their social and economic marginalization. This in itself may prove sufficient justification for the investment made in the project, albeit in a fairly small scale (3 villages with a total population of approximately 6,000 people). It is hard to ascertain by whom in the communities the accrued benefits from the project have actually been received as clear data for this is lacking. Yet it is clear that only a certain proportion of the villagers (possibly less than 20%) actively participate in the project and as such the most direct benefits must have largely gone to them. Only in the longer term will the indirect benefits such as the mangrove related improvements in fish catch and the opportunity to harvest mangrove poles from the community forest be accessible to other members of the community.

Problems and Changes

The main problems encountered during implementation of the project are summarized below:

Constraints to success in mangrove rehabilitation.

The survival of the replanted mangrove tree in plots at the community forest site at Mwangoa was hampered significantly in the early days by grazing goats and sheep, drought and very high soil salinity levels. The initial survival rates of the experimental sites were below 30%, which dampened the enthusiasm of some of the community. This problem was addressed by proper fencing of the sites, hydrological restoration of some sites through the digging of tidal channel and manual adjustments to surface topography. The hydrology of most of these sites is now characterized by proper flooding at high tide and proper drainage during low tides and periods of substantial

rainfall. This has improved soil conditions and consequently the survival and growth rates of the replanted mangroves.

Limited Meaningful Participation by the Local Communities.

Substantial efforts to promote community participation in joint environmental action and resource management has yielded some success but the overall progress on this issue was slow while the number of participating villagers was often disappointing especially in the early stages of the project.~Various factors contributed to the lack of motivation by the members of the community to participate in the project, including the wider economic crisis which has gripped Kenya, differing responses to growing economic uncertainties, existing inequities within the community, fisheries conflicts, alcoholism, increase in domestic strife and the interdiction of the area chief which followed the voting out of all headmen of villages in elections that saw the creation of a village development committee.

The project addressed these problems through training of project staff (all volunteers and, from the village) in conflict resolution and gender aspects, increased attention for the weaker groups within the community and efforts to work with different sub-groups from the community on different activities within the project. The involvement in the project of KMFRI, Kenya is leading institution in community mangrove forestry can also be seen as an additional strategic step by the project team to address this issue.

Unforeseen impacts from major development project.

An unforeseen though predicted threat to the project has been a government project to develop a road bypass to the south coast tourist hub, this will mean major constructions and dredging operations which will have significant environmental impacts on the fragile but productive ecosystem of the bay.

Conflicts and inequity within the community.

Progress in the implementation of project activities in the target villages has often been hampered and frustrated by conflicts within the communities. As much as villages may be seen as administrative units, they encompass a wide range of groups of people with different status, possession, power and cultural or traditional rights. Tensions, divisions and conflicts in the villages are related to a range of factors including political or religious differences of opinion, existing inequities within the community, and fisheries methods conflicts.

Policy Changes

There have been a number of policy changes during the project~period that has altered the background assumptions in favor of the projects goals and objectives. They include the enactment of a new law on natural resource management which emphasizes public participation on natural resource management, a ban on further expansion, renewal of mangrove logging, and the tabling of a long awaited draft community forestry bill (currently) still under discussion but a step in the right direction.

Minor Operational Changes

There has been no need for significant changes, adjustments to the objectives and approach and in the instance where a review has been found necessary, a rider variation of the new designed objectives have been outlined. (see project work plans 2000).

General Conclusions and Lessons Learnt

The efforts of the current project to establish local community involvement in mangrove forest conservation, rehabilitation and sustainable management have not been totally successful nor have they been a complete failure. Not surprisingly the project has taken off with a whole range of different expectations among the participating groups and institutions involved some of which were either unrealistic or incompatible with each other. Over time, however the awareness and understanding has grown leading to changes in attitude and expectations towards a more realistic and compatible blend. It is important to realize that the work of the kind presented in the previous project reports is a process of "learning by doing" yielding it crucial to share experiences regarding both the success as well as the failures with others working in the same field.

There is no single correct way to establish effective local community involvement in coastal wetland resource management. The approach followed in the current project has been tailored to the prevailing ecological and socio-economic situation at Tsunza and to the capabilities of the project management team headed by the project coordinator and participating members of the communities and other stakeholders.

The project emphasizes on the process rather than the outputs of the project and undoubtedly this has had its merits and demerits and expectedly will contribute to a long-lasting sustainable change of attitude in the management and wise use of the rehabilitated mangroves at the target site specific areas at Kwa-Soa, Tsunza- ya-Munyu, Chiboponi, Bilali, Jeuri, Mfundo, Matsazani and Mwangoa.

At the same time however the lack of clear measurable indicators of progress has contributed to some degree of uncertainty, skepticism and even opposition among the target communities, and other stakeholders. The project has taken a flexible and open approach, putting considerable effort in the creation of a strong sense of local ownership of the process and allowing them to play a major role in the planning and decision making of the project. This has demonstrated clearly to the community that their knowledge, concerns and ideas are taken seriously, strengthening their trust in the participatory process. At the same time however this has led to diffusion of the project objectives with a lack of clarity on priorities and a gradual shift in preference of interest towards activities of immediate benefits rather than to broader - long term solutions to the problems.

The project has placed perhaps too great an emphasis on the local community (in awareness building, education, participation and management) resulting in a lack of understanding, involvement and commitment from other

stakeholders such as government institutions and mangroves cutters and licensees. This unbalance between bottom-up and top down focus is characteristic of the general lack of mutual trust between local community based organizations and government officials in Kenya.

However user communities managing in isolation would be unlikely to be able to solve problems that originate outside the community (e.g the impacts of dredging and port extension and the dumping of hospital wastes and other oil pollutants from the Kilindini harbor). The project has recognized this after nearly three years of operation and is currently placing a great emphasis on the full incorporation of local administration staff in the project process. The importance of involving local governments units in community based mangrove rehabilitation programmes has also been practiced in the Philippines and Thailand.

The general principle of people's involvement and participation in governance, resource management and development planning has been fully recognized in the recently enacted environmental management coordination Act which received presidential assent into law late last year.

There still are, however major cultural barriers to effective grass roots in the strongly stratified, hierarchical Kenyan Society. Though the concept of participation is generally understood and given "lip service," support among government officials, wholehearted acceptance of and genuine commitment to community involvement as a basic element of their management approach is rare. Not all the blame is on the government though, as many communities as well as some of the NGO's that support them appear skeptical and reluctant to accept government institutions as partners in co-management. Involvement of government Agencies in project steering committees and ceremonial replanting events alone will not suffice. In Tsunza and its environs, external assistance to the local communities in development of their capacity to participate effectively in resource rehabilitation has come in three different ways.

Besides the financial assistance from the SSNC and technical advice, administration and coordination by senior staff from KMFRI, staff from other collaborating institutions have played a crucial facilitatory role of support to the community and has been an ongoing source of independent advice, ideas and expertise for developing their involvement in wetland resource management.

The project team of TCDP also contributed by acting as intermediate between the government and the local community and by regular reviewing the achievement and documenting the experiences of the project.

Weaknesses in the facilitatory process included the reluctance of some academic staff to incorporate effectively the lessons learnt from other similar initiatives elsewhere in the world, poor cooperation with some local environmental NGO's small scale fishermen (largely due to personality conflicts and an atmosphere of competitiveness) and difficulties to overcome

the wide gaps in expectations and working style between the different stakeholders in the project.

The pace of progress as experienced in the present projects has been slower than initially anticipated by the participating institutions and collaborating agencies.

It has become clear that the building of trust and achievement of effective participation takes a considerable amount of time, patience and flexibility. The role of the project management team has been that of facilitation rather than implementation. The establishment of sustainable and meaningful community involvement in coastal resource rehabilitation and management cannot be achieved through a single project that is restricted in scope and area and which has a limited time frame with deadlines. Rather, effective community participation in environmental and socio economic rehabilitation and management is a long-term process that can only be achieved through large-scale programs with an incremental approach. A project as described in this discussion paper can therefore not be seen as more than part of a step by step process into the direction of improvement. Follow-up and continuation of some form of external support will therefore be crucial to avoid gradual collapse of the positive impacts achieved by the project within such a short time.

The building of confidence and understanding within the community may have been time consuming and hampered immediately measurable progress in mangrove restoration. This investment however is expected to pay off in the long term because it has built a strong sense of ownership and commitment within the community and therefore ensures the long-term sustainability of the rehabilitation. The future commitment of SSNC to the present project will be necessary to avoid gradual collapse of the positive impacts achieved by the project to-date.

The community at large would wish to see a situation where monetary motivation is given out, however encouraging any sort of subsidized mangrove restoration will have a negative effect once the donor grant runs out and the villagers will lose interest.

The spirit of volunteerism and community cooperation is alive in Tsunza and continues to be strengthened. However there is now a need to divorce the ownership of the project from the management by recruiting a fulltime employee of the project for the key position of Project Coordinator, his assistant and a good trusted accountant to avoid too much power being concentrated on the current officials. These should preferably be people who are well trained and experienced, they could even come from outside the community. On the other hand paying or giving honorarium to those who replant and nurture the mangroves or to a few people who do the patrolling or regular monitoring of the forest as advocated by some members may/will erode this value. The project is in the process of identifying other forms of incentives that will not only boost the morale of the project members but also enhance general community participation. These alternative livelihood support

systems will form a good example of how research can be used to benefit the end-line beneficiaries.

STATEMENT OF EXPENDITURE

BUDGET POSTS (FUNDED ITEMS ONLY)	PERIOD JAN-DEC> (UNAUTITED)
Patrol boat Engine	260, 000.00
Boat Safety Equipment	29,700.00
Materials (Purchases)	373,000.00
Boat licenses & inspections survey	23,000.00
Training	267,000.00
Resource Inventory	39,000.00
Education/Awareness Activities	267,000.00
Boat Patrol Expenses	462,000.00
Exchange Visits	181500.00
Project Steering Committee	48,000.00
Public Relations (Donations/Trophy)	15,000.00
Cultural Dance Troupe	28,000.00
Resource Inventory I	340,000.00
Conferences & Seminars (Attendance)	34,000.00
Allowances, Per Diem	123,400.00
Postage and stamps	12,500.00
Telephone	96,000.00
Emails Address rentals	76,800.00
Emails printing	57,340.00
Film processing/ video recording	104,000.00
Private Bag rentals	9,000.00
Photocopy	17,800.00
Fax (send/receive)	34,980.00
Books, Publications Newspapers, Journals	67,000.00
Legal Fees/	15,000.00
Mass media/Press coverage	15,000.00
Local Travel	20,000.00
Insurance cover (Boat)	25,000.00
Office Equipment (solar panel)	38,105.00
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GRAND TOTAL	2,506,125.00
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PROJECT STAFF (VOLUNTEERS)

Ted Majaliwa Kombo	-	Co ordinator
Richard Matano	-	Assistant Coordinator
Rachel Plamann	-	Research Officer (Intern)- USA
Chris Applewhaite	-	Research Officer(Intern)-Canada
Michael Magnan	-	Research Officer(Intern)-Canada
Mohammed Mwachangoma	-	Forest Guard
Beja Athman	-	Boat Coxswain
Catherine Kimeu	-	Secretary/Typist
Mwanajuma Ali	-	Office clerk/Accountant
Cosmas Munga	-	Research student- Moi University

PROJECT MANAGEMENT COMMITTEE (ELECTED & CO-OPTED)

Ted Majaliwa Kombo	-	Coordinator
Shaban Athman	-	Chairman
Richard Matano	-	Assistant Coordinator
Grace Luvuno	-	Secretary
Munga Fredrick	-	Treasurer
Juma Rumba	-	Member
Mwanajuma Ali	-	Member
Mwaka Mwangaza	-	Member

PROJECT STEERING COMMITTEE

Ted Kombo	-	TCDP
Richard Matano	-	TCDP
Dennis Kerengo	-	(DFO - MSA)
Dr. Renison Ruwa	-	D/Director KMFRI
Mr.Hadley Becha	-	Executive Director (EAWLS)
Dr. Mohammed Swazuri	-	University of Nairobi
Martin Mamati	-	DFO Kwale
Mrs. Martha Mukira	-	Fisheries Dept Kwale
Area Chief	-	Gandini location
Area Councillor	-	Gandini Ward
Representative	-	Mangrove traders/licensees
Dr. B J Mwandoto	-	Coast Development Authority
Hassan O. Hassan	-	N.M.K
DR. Joseph Rasowo	-	Moi University
Mr. Seed Mwanguni	-	ICAM secretariat
Dr. Nyawira Muthiga	-	KWS / Wetlands Program