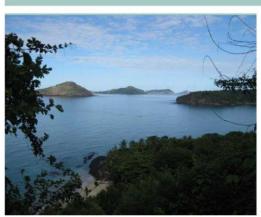








# DEVELOPMENT PLAN FOR THE FISHING COMMUNITY MOHÉLI, COMOROS 2011















# Development Plan for the Fishing Community

Mohéli, Comoros

**VERSION 1** 

#### **Caveat**

The current document is a work in progress. Many people contributed to its production by way of field trips, and through providing diverse information or other input. Most importantly, the local communities and stakeholders gave extensive input through open community meetings as well as more specific planning sessions. The document provides a solid foundation on which to base further planning and implementation, as it captures the needs and aspirations of the local community. The document is not perfect and can be expected to evolve as circumstances change and more parties become involved, and make further changes to it. That is why it is labelled "Version 1".

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# Also Authorities, Institutions and NGOs contributed input to this plan. They include the following;

National coordinator, ASCLME Project, Comoros, Mr Farid Anasse

Head of Planning and Evaluation, Ministry of Environment and Permanent Secretary for the CNDD, Mr Abubacar ben Allaou

Director General of Agriculture and Environment, Mohéli, Mr Faissoili ben Mohadji

Commissioner at the Ministry of Agriculture, Fishing and the Environment, Mohéli, Mr Daroussi Bacar Issouf

Director of Fisheries, Mohéli, Mr Kamardine Boinali

Responsible for CEA (ICZM) ReCoMap, Mohéli, Mr Loutfi Maoli

Responsible for "halieutique" resources, Fisheries, Mohéli, Mr Said Abdoulbak Attoumene

The management of the Mohéli Marine Park (Parc Marine du Mohéli, PMM)

Mr Anfane, the coordinator of the Association pour le Développement Socio- Economique d'Itsamia (ADSEI)

# The following team members from EcoAfrica and partners have worked on the development of this plan:

Prof Francois Odendaal, Mr Chaplain Toto, Ms Frida Lanshammar, and Ms Oriana Lemos

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#### Vision for the Fishing Community in Mohéli

The Vision for the fishing community in Mohéli was developed during a series of stakeholder group meetings with groups of fishers from Ndrondroni, Nioumachoua and Hoani, with input from individual interviews as well as input from NGOs and government institutions and parastatal organisations. The vision presents the collective view of the fishers and other fishing related stakeholders, as to where they want to see this area and themselves one day in the future. The Vision therefore functions as a guiding light on the road into the future, with the Development Plan for the fishing community in Mohéli serving as the road map:

"We, the people of Nioumachoua, Ndrondroni and Hoanie, want our communities to be more developed and people to have a better quality of life. We want our villages to have reliable electricity supply, good quality education and health care and access to water. The fishing industry needs to be developed by getting access to sustainable cold storage facilities, better navigation equipment and better boats. We want to be more involved in the conservation efforts and see them expand over Mohéli Island. The communities should have more influence in decision making processes and get more involved tourism activities."

#### Vision de la communauté vivant de la pêche à Mohéli

La vision de la communauté vivant de la pêche à Mohéli a été développée à travers une série de rencontres réunissant les acteurs avec des groupes qui viennent de Ndrondroni, Nioumachua et Hoani, mais également les idées recueillies à travers des interviews individuels, des renseignements émanant des ONGs et des collectivités décentralisées. La vision présente évidemment le point de vue collectif des pêcheurs ainsi que les personnes directement concernées, projetant ce que leur pays deviendra un jour. Par conséquent, elle sert un jalon pour le futur, et avec le Plan de Développement de la pêche pour la communauté de Mohéli, ce plan deviendra une feuille de route.

"Nous, population de Nioumachoua, Ndrondroni et Hoani, voulons que notre communauté connaisse plus de développement et les habitants auront une meilleure qualité de vie. Nous voulons avoir une électricité qui marche dans notre village, enseignement et éducation de qualité, santé publique et accès à l'eau potable. La pêche devrait être développée, avec la mise en place des chambres frigorifiques, et les pêcheurs auront la possibilité d'acheter des petits bateaux motorisés. Nous voulons être impliqués davantage dans les efforts de conservation qui devrait toucher l'île Mohéli toute entière. La communauté devrait être prise en compte dans les décisions et être impliquée davantage aux activités touristiques."

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#### **List of Acronyms**

ADSEI Association pour le Développement Socio- Economique d'Itsamia

ASCLME Agulhas and Somali Current Large Marine Ecosystem

CHABAMCA Changuu-Bawe Marine Conservation Area

CNDD Comité National pour le Développement Durable
CIDD Comité Insular pour le Développement Durable

CSR Corporate Social Responsibility
COI Commission de l'Océan Indien

DLIST Distance Learning and Information Sharing Tool

EIA Environmental Impact Assessment

FAD Fish Attraction Device

GEF Global Environment Facility

ICZM Integrated Coastal Zone Management
IOC Indian Ocean Commission (same as COI)

IUCN International Union for Conservation of Nature

LED Local Economic Development

LME Large Marine Ecosystem

LFA Logistical Framework Analysis

M&E Monitoring & Evaluation

MEDA Marine Environment Diagnostic Analyses

MPA Marine Protected Area

MPRC Multi-Purpose Resource Centre
NGO Non-Governmental Organisation

PMM Parc Marin du Mohéli
PMU Project Management Unit

ReCoMap Regional Programme for the Sustainable Management of the Coastal Zones of

the Indian Ocean Countries

SA Situational Analysis

SAP Strategic Action Programme

SIP Strategy and Implementation Plan
SMME Small and Medium Enterprises

TDA Transboundary Diagnostic Analyses
TUMCA Tumbatu Marine Conservation Area

UNDP United Nations Development Programme

UNESCO United Nations Educational, Scientific and Cultural Organisation

WIO Western Indian Ocean

WIO – LaB A Project addressing land-based activities in the Western Indian Ocean

#### 1. Executive Summary

The Agulhas and Somali Current Large Marine Ecosystem (ASCLME) Project focuses on improved management of marine and coastal resources in nine countries in the Western Indian Ocean region; Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, and Tanzania. The project is adopting a tried and tested communication and outreach tool to inform the planning phase of the project by developing effective communication between and among stakeholders and decision makers with a focus on coastal and marine resource conservation within the region through the Distance Learning and Information Sharing Tool (DLIST).

The DLIST intervention is two-fold with a web-based platform offering online distance learning courses, a discussion forum, a document and photo library etc. To encourage stakeholders without access to internet to take an active part in the planning phase of the project, DLIST works with demonstration site communities in all of the participating countries, except Somalia. Mohéli Marine Park was selected as the DLIST demonstration site for Comoros, with a specific focus on the fishing communities in the three villages Nioumachoua, Ndrondroni and Hoani.

These three communities were chosen as focus areas to give a spread to the DLIST intervention. Nioumachoua is an example of a well organised community that has been very involved in the Marine Park and different conservation activities. Ndrondroni on the other hand is a community that also lies within the MPA borders, but where the population to a large extent consists of immigrants from Anjouan. The Marine Park has not been very successful in implementing any activities in this community. Following suggestions from representatives of the Ministry of Agriculture, Fishing and the Environment in Mohéli, it would bring added value to also include one community that lies outside the MPA borders. Hoani was therefore selected as the third target community. The communities in all three villages are highly dependent on fishing and small scale agriculture for their livelihoods. The main environmental issues are beach erosion, coral reef degradation and cutting of mangroves and deforestation. Around the town area, also solid waste pollution is a problem.

As part of the DLIST demonstration site intervention, field visits have been conducted for direct, face-to-face interaction with local communities, as well as with government and non-government authorities. The planning process follows a Local Economic Development (LED) planning approach. The consultants visited the demonstration site to get the views of all the stakeholders concerned with any activities related to fishing and the marine/coastal resources by identifying problems, weaknesses and opportunities for sustainable development. Consultations were also undertaken to try and find out what the people perceive as solutions to the problems, and issues related to marine and coastal resource use.

The information collected during the planning activities is used for two parallel purposes; to inform the development of a Strategic Action Programme (SAP) for the implementation

phase of the ASCLME Project, and to develop a free standing Local Economic Development (LED) Plan with the purpose to build up the economic capacity of an area in such a way that its economic future can be improved, with a positive impact on the quality of life for all inhabitants. The DLIST planning is a process in which all stakeholders work collectively, with the local community at the centre stage, to create better conditions for economic growth and employment generation. To further ensure that local interests were safeguarded, and to instil a sense of ownership, a LED Planning Committee was selected at the village/community level, to spearhead the process, and be involved in the elaboration of the plan.

#### 1.1. Aim of the Development Plan

The Development Plan for the Fishing Community in Mohéli aims to foster and maintain a higher quality of life among the fishing communities and nearby marine areas (the marine park) by unlocking local economic development opportunities; a good plan typically may call for improved planning, construction of infrastructure and services, the creation of sustainable business opportunities based on the strengths and potential of the areas, and employment that is linked to opportunities in the area.

#### 1.2. In a nutshell

- a. The Development Plan is considered an important instrument that can guide development in the area, leading to an improved quality of life for all stakeholders.
- b. It was developed as a result of extensive engagement with the local community members as well as consultations with relevant authorities and other role players.
- c. Community involvement came by way of stakeholder group meetings and visioning exercises held with groups of fishers in Nioumachoua, Ndrondroni and Hoani. It is seen as crucial to ensure that local interests were safeguarded to instil a sense of ownership of the plan and vision by the community.
- d. Key informers representing Mohéli Marine Park, Ministry of Agriculture, Fishing and the Environment in Moroni and Mohéli, Comité Insulaire pour le Développement Durable", CIDD (Island Committee for Sustainable Development) for Mohéli, have also contributed to the formulation of this plan through key informers' interviews and meetings.
- e. Most importantly, the Plan pursues a collectively constructed Vision, and can be considered a road map to this end:

"We, the people of Nioumachoua, Ndrondroni and Hoani, want our communities to be more developed and people to have a better quality of life. We want our villages to have reliable electricity supply, good quality education and health care and access to water. The fishing industry needs to be developed by getting access to sustainable cold storage facilities, better navigation equipment and better boats. We want to be more involved in the conservation efforts and see them expand over Mohéli Island. The communities should have more influence in decision making processes and get more involved tourism activities."

- f. There are five sections to the Development Plan. The first section provides an *Introduction* with background, information about the site, the purpose of the plan and a basic description of the areas covered by the plan.
- g. The second section explains the *Methodology* in a fair amount of detail. Consultations were exhaustive and the process fully transparent. Additional research was done to provide a solid basis for the Plan.
- h. The third section presents the *Outcomes* of the consultative process, socio-economic and other research and desktop work on other initiatives that may impact on the development plan.
- i. The fourth section provides a combined *Strategy and Implementation Plan* that is short, direct and suitable for local consumption.
- j. The fifth section presents the *Guidelines* for future development of this area.

#### 1.3. Sixteen major issues identified through stakeholder consultations

- 1. Local communities are often not involved in projects and development plans;
- 2. People don't respect the rules of the village and the MPA;
- 3. The villages have poor infrastructure such as bad road, lack of toilets, insufficient waste collection/management, lack of market area, and inadequate hospital services;
- 4. Lack of access to electricity;
- 5. Lack of education, environmental awareness and skill training;
- 6. Lack of capacity within the community associations and the village leaders;
- 7. Lack of access to modern fishing gear, including bigger boats, cold storage facilities, GPS, marine radios etc.;
- 8. Relatively high rate of immigration to Mohéli from Anjouan, which needs to be managed better;
- 9. Poor communication within the communities and between communities and the Government;
- 10. High unemployment rate, particularly among the young generation;
- 11. Lack of funds for development and business development;
- 12. Environmental problems such as beach erosion, solid waste pollution on the beach, mangrove cutting, deforestation, coral reef degradation and poaching;
- 13. Lack of available land and space for community development;
- 14. More than 50% of the population on Mohéli live outside the MPA where there is no conservation of resources;
- 15. Lack of access to information for informed management decisions related to the marine resources (more research is needed);
- 16. Lack of funds for law enforcement and MPA management.

#### 1.4. Twelve major opportunities identified through stakeholder consultations

1. The communities in Mohéli are quite well organised in different village associations;

- 2. Upgrade of the fisheries sector (training, access to cold storage, access to bigger boats, instalment of a FAD, access to marine radios and GPS) could increase revenue from this sector for the benefit of all community members;
- 3. There is beautiful nature with the beach, ocean, palm trees and the Marine Park;
- 4. The soil is fertile and good for agriculture;
- 5. The introduction of stone crushing machines would give people an alternative to sand mining;
- 6. Initiatives like ADSEI are encouraging and show that people can benefit from getting involved in conservation. Information should be shared more to spread this initiative over the island;
- 7. There is a microfinance institute (Sanduku), which could give opportunity to people if they had better training in proposal writing and business management;
- 8. The marine resources are still very rich and provide good livelihoods for the people;
- 9. Upgrading of the schools would encourage people to continue their education further, which will increase chances for employment;
- 10. There is a waterfall on Mohéli that could possibly be developed to produce electricity for some areas of the island;
- 11. The nature, culture and heritage are great assets for developing the tourism industry more in Mohéli, which would generate income;
- 12. The legal framework is relatively good in Comoros, only improved enforcement should be encouraged.

## 1.5. Main areas of intervention outlined in the Strategy and Implementation Plan

The above mentioned issues are targeted by thirteen areas of intervention, also taking the listed opportunities into consideration. The interventions are linked to the listed issues they are intended to target in the Strategy and Implementation Plan (section five of this document). Some areas of intervention cover more than one issue, and some issues cut across several areas of intervention.

- A Multipurpose Resource Centre (MPRC), which can include a market area, a youth centre, a space for community handicraft development and training activities, a small shop/market for community products, an environmental information centre, a stone crushing machine, and a solar drying area for fruit and other natural products etc. The MPRC should be fitted with renewable energy supply, toilets and rainwater harvesting;
- 2. <u>Infrastructure upgrade project</u>, including improved road, upgraded drainage, set-up of a waste management project and construction of public toilets for the community;
- 3. <u>School upgrading</u>, overall the schools need to be expanded and improved to cater for the growing number of children. To encourage children from relatively large villages like

Nioumachoua to continue their education beyond primary level, it would be good to introduce also a secondary school in the village;

- 4. <u>Instalment of renewable energy sources</u> for the coastal communities. Combinations of solar, wind, and bio gas energy can be explored, along with the waterfall that has been pointed out as a potential energy source by the community;
- 5. <u>A fishers support initiative</u>, including upgrading of landing sites, instalment of solar freezers, provision of larger boats and training on how to use them, the instalment of FADs around Mohéli, and a hygienic fish processing and selling area for marine products;
- 6. <u>A community farming project</u>, to encourage more and sustainable farming activities for improved food and income security. Initially it is proposed that fruit farming, processing (drying), and packaging is encouraged;
- 7. <u>Adult education and training</u>. Support to the community groups in terms of adult education and training in the following fields; business management, proposal preparation, practical skills, and leadership skills;
- 8. <u>Outreach support to ADSEI and the Mohéli Marine Park</u> so they can expand the community outreach and education activities to more communities all over the island<sup>1</sup>, including school trips to visit the MPA and the turtle conservation initiative;
- 9. Access to land and improved land-use planning, to improve development and business opportunities for the community members, in close collaboration with the relevant Government Departments and the MPA;
- 10. <u>Eco-/Community tourism development</u>, to increase sustainable tourism to the area and to increase the revenue spread to the local communities;
- 11. A marine research initiative which encourages local and international researchers and experts to come to Mohéli to conduct stock assessments etc for more informed management decisions;
- 12. Funding to the MPA for improved law enforcement;
- 13. <u>Improved communication</u> between Government and community and encouraged community involvement in project planning and implementation.

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<sup>&</sup>lt;sup>1</sup> Particularly targeting the immigrants from Anjouan and other islands.

#### 1. Résumé exécutoire

Le projet Agulhas and Somali Current Large Marine Ecosystem (ASLME) est axé dans l'amélioration de la gestion des ressources marines et côtières dans les neuf pays de l'Océan Indien occidental à savoir : Les Comores, Le Kenya, Madagascar, Maurice, Mozambique, Seychelles, la Somalie, l'Afrique du Sud et la Tanzanie. Le projet utilise un outil de communication expérimenté et testé pour la phase de planification et de la mise en place en stimulant une véritable communication entre les acteurs directes et l'instance de prise de décision avec un focus sur la conservation des ressources marines de la zone à travers l'Enseignement à Distance et l'Outil de Partage d'Informations appelé DLIST (Distance Learning Information Sharing Tool).

L'intervention du DLIST est à la fois la mise en place d'une plateforme en ligne offrant des formations à distance, un forum de discussions, une bibliothèque contenant des documents et photographies etc. Pour encourager les acteurs qui n'ont pas accès à l'internet à prendre part activement dans la phase de planification, le DLIST travaille avec les communautés dans les sites de démonstration dans tous les pays participants, sauf la Somalie. Le Parc Marin de Mohéli est sélectionné pour être le site de démonstration pour les Comores avec un focus particulier sur les communautés vivant de la pêche dans les trois villages de Nioumachoua, de Ndrondroni et de Houani.

Ces trois communautés ont été choisies comme une référence pour l'intervention du DLIST. Nioumachoua est un exemple d'une communauté bien organisée et très impliquée dans le Parc Marin à travers différentes activités. Ndrondroni, situé dans l'autre côté de l'île, est également une communauté à l'intérieur de la limite du parc, mais parmi ses habitants, nombreux sont des immigrants venant de l'île d'Anjouan. Le Parc Marin n'a pas vraiment réussi à créer des activités dans cette communauté. Suivant les idées du représentant du Ministère de l'Agriculture, la Pêche et l'Environnement à Mohéli, il sera aussi intéressant de prendre une communauté en dehors du Parc Marin. C'est delà que la communauté de Hoani a alors été sélectionnée pour être la troisième. Les communautés de ces villages sont hautement dépendantes de la pêche et les petites agricultures dans le quotidien. Les principales préoccupations environnementales dans la zone sont notamment l'érosion marin, la dégradation des récifs coralliens et les coupes des mangroves et forêts. Dans les périphéries des villes, les ordures amassées posent également de problèmes.

An tant qu'une des zones d'intervention du site de démonstration de DLIST, une visite de lieu a été menée, comportant des pourparlers en face-à-face avec les communautés locales, les autorités gouvernementales et non gouvernementales. Le processus de planification suit l'approche de Développement Economique Local (LED). Les consultants ont visité les sites de démonstration pour rencontrer tous les acteurs concernés par les activités relatives à la pêche, constater les ressources marines et côtières pour identifier les problèmes, les handicapes et les opportunités en vue d'un développement soutenu et durable. Des

entretiens ont été menés pour savoir comment les gens perçoivent la solution de leur problème, et les autres problèmes liés à l'utilisation des ressources marines.

Les informations recueillies sont ensuite utilisées en parallèle pour deux objectifs distinctes ; pour concevoir et rédiger le Programme d'Action Stratégique de la phase de mise en œuvre du projet ASLME, mais et également pour confectionner de manière participative un plan de Développement Economique Local (LED), dans le but de relever la capacité économique locale qui conduit à un impact positif dans la qualité de vie des habitants. Le Planning de DLIST est un processus dans lequel tous les acteurs travaillent collectivement, dont les communautés locales jouent un rôle central, pour créer une meilleure condition dans un essor économique conjointement lié avec une création d'emploi. Pour assurer et garder l'intérêt des locaux et faire en sorte que ce plan leur appartienne, un comité du LED est mis en place composé des villageois afin de garder le processus et les impliquer activement dans l'élaboration du plan.

#### 1.1. Le But du Plan de Développement

Le but du Plan du Développement pour les communautés vivant de la pêche à Mohéli Beach consiste à encourager et maintenir la haute et la bonne qualité de vie des communautés vivant de la pêche dans les alentours du Parc Marin à travers le déblocage du développement économique local; typiquement, un bon plan nécessite un meilleur planning, construction des infrastructures de services, création d'un meilleur climat d'affaire reposant sur une base solide avec le potentiel local, et la création d'emploi soit liée aux opportunités locales.

#### 1.2. In a nutshell:

- a. Le plan de développement est considéré comme un instrument important qui peut conduire un développement dans la zone.
- b. Il est rédigé comme étant le résultat d'un engagement sans faille des opérateurs locaux et les membres de la communauté locale, en concertation avec les autorités et bien d'autres intervenants.
- c. L'implication de la communauté apparait à travers les différentes réunions de groupe des acteurs directes de la pêche de Nioumachoua, de Ndrondroni et de Hoani. Il est crucial d'assurer que les intérêts locaux soient sauvegardés pour ne pas les retirer de l'appropriation de ce plan et leur vision.
- d. Les informateurs clés représentant du Parc Marin de Moheli, Le Ministère de l'Agriculture à Moroni, le CIDD (Comité Insulaire pour de Développement Durable) de Mohéli avait également contribué à la formulation de ce plan à travers les interviews qui avaient été menés lors de la réunion préparatoire.
- e. Le plus important c'est que le Plan soit la résultante d'une vision collective, ce que lui donne un titre d'une véritable feuille de route pout atteindre ces objectifs.

"Nous, population de Nioumachoua, Ndrondroni et Hoani, voulons que notre communauté connaisse plus de développement et les habitants auront une meilleure qualité de vie. Nous voulons avoir une électricité qui marche dans notre village, enseignement et éducation de qualité, santé publique et accès à l'eau potable. La pêche devrait être développée, avec la mise en place des chambres frigorifiques, et les pêcheurs auront la possibilité d'acheter des petits bateaux motorisés. Nous voulons être impliqués davantage dans les efforts de conservation qui devrait toucher l'île Mohéli toute entière. La communauté devrait être prise en compte dans les décisions et être impliquée davantage aux activités touristiques."

- f. Il y a cinq sections dans le Plan de Développement. La première est une introduction comportant des informations sommaires du site, l'objectif du plan, et une description simple de la zone concernée par le plan.
- g. La seconde section explique le détail de la méthodologie adoptée. Les informations exhaustives sur les entretiens et les étapes dans le procédé sont transparentes. Des recherches additives avaient également été menées dans le but d'avoir une base solide pour le plan.
- h. La troisième section contient le résultat du processus d'entretien socioéconomique et les autres volets de recherches documentaires selon leur initiative et pouvant éventuellement contribuer au Plan de Développement.
- i. La quatrième section contient le Plan de mise en Œuvre Stratégique qui est relativement court, direct et pratique pour la conception locale.
- j. La cinquième section contient les directives à suivre pour le développement à venir de la zone.

## 1.3. Les seize problèmes majeurs identifiés à travers les entretiens avec les acteurs

- Les communautés locales ne sont pas toujours impliquées dans les projets et le Plan de Développement;
- 2. Les gens ne respectent toujours pas les règles qui régissent le Parc Marin;
- 3. Les infrastructures dans les villages telles que les routes sont en état de délabrement, on note également l'absence de toilette public, manque de ramassage et gestion des ordures, la structure hospitalière inadéquate;
- 4. Accès à l'électricité limité;
- 5. Niveau éducatif des gens très bas, manque de sensibilité environnementale et de technique de formation;
- 6. Insuffisance en capacité organisationnelle des associations et du leadership au niveau des collectivités;
- 7. Insuffisance d'accès aux outils de pêche moderne tels que des embarcations plus grandes, chambres froides, GPS et communication en Radio pour les gens de mer;
- 8. Immigration relativement importante des Anjouanais à Mohéli qui nécessite une gestion concertée;

- 9. Faible communication inter-communautaire et entre les communautés et l'instance gouvernementale;
- 10. Chômage élevé surtout pour les jeunes;
- 11. Manque de financement pour le développement;
- 12. Problèmes environnementaux tels que l'érosion marine, sols et plages pollués, coupe des mangroves, déforestation et dégradation des récifs coralliens;
- 13. Manque de terre pour développement communautaire;
- 14. Plus de 50% de la population de Mohéli vivent en dehors de la zone protégée du Parc Marin à laquelle aucune mesure de conservation est prise;
- 15. Manque d'accès à l'information pour les décisions relatives à la gestion de la zone (une étude approfondie doit être menée dans ce sens);
- 16. Manque de financement pour le renforcement des règles autour de l'Aire Protégée Marine.

# 1.4. Les douze opportunités majeures identifiées à travers les entretiens avec les acteurs

- Les communautés de Mohéli sont suffisamment organisées en associations dans les différents villages;
- 2. Amélioration du secteur pêche (formation, mise en place de chambres froides, avoir des embarcations plus grandes taille, mise en place de FAD, avoir des radios et GPS) pouvant améliorer le revenu de ce secteur au profit de la communauté entière;
- 3. La nature merveilleuse, plages, océan, les palmiers et le parc marin;
- 4. La terre est fertile et bonne pour l'agriculture;
- 5. L'introduction des machines de broyage de pierre pouvant donner à la population une alternative au ramassage de sable;
- 6. Les initiatives telles que ADSEI encouragent et montrent aux gens ce qu'ils peuvent gagner à travers la conservation. Les informations doivent être partagées davantage et au-delà de l'île;
- 7. Il y a une institution en microfinance pouvant créer plus d'opportunités aux gens s'ils sont mieux formés en rédaction de projet de financement;
- 8. Les ressources marines sont encore suffisamment abondantes pour créer une condition de vie meilleure pour les habitants;
- 9. Améliorer les écoles conduira les habitants à y rester plus longtemps, ce qui augmentera leur chance de trouver un jour un emploi;
- 10. Mohéli possède une cascade qui peut être utilisée pour produite une électricité alimentant quelques régions de l'île;
- 11. La nature, la culture et le patrimoine peuvent être mieux évalués pour développer l'industrie touristique à Mohéli, ce qui apportera plus de revenu;
- 12. Le dispositif légal est relativement stable aux Comores, seulement une amélioration est sollicitée.

# 1.5. Un aperçu sur le domaine d'intervention dans la Stratégie et le Plan de mise en œuvre

Les problèmes identifiés sont visés par treize domaines d'intervention, en prenant en compte la liste des opportunités. Les interventions sont liées à la liste des problèmes qui sont dans la stratégie et le plan de mise en œuvre (la section cinq de ce document). Certain domaine d'intervention touche plus d'un problème, et certains problèmes sont touchés par plusieurs domaines d'intervention.

- 1. <u>Un centre de ressource multifonction (MPRC)</u>, composé d'un bazar, centre de la jeunesse, un espace pour le développement de l'artisanat et des activités de formation, une boutique spécialisée en produits locaux, un centre d'informations environnementales, une machine à broyage de pierres, et un espace de séchage au soleil pour les fruits et autres produits naturels etc.;
- 2. <u>Amélioration du système d'infrastructure</u>, notamment les routes, le système de drainage, le système de gestion de déchets, et construction de toilettes publics pour la communauté;
- 3. Renforcement du système scolaire;
- 4. <u>Installation de nouvelle source d'énergie renouvelable</u> pour les communautés du littoral. La combinaison de l'énergie solaire, éolienne et du gaz naturel est envisagée, de même que la cascade qui a été identifiée comme une source potentielle d'énergie pour la communauté;
- 5. <u>Initiative de subvention pour la pêche</u>, jusqu'au site d'exploitation, installation de chambre frigorifique solaire, dotation en bateau plus grand suivie des formations pour une meilleure rentabilisation, mise en place de FAD aux alentours de Mohéli, meilleure qualité de conditionnement et de vente des produits de mer;
- 6. <u>Mise en place des jardins potagers communautaires</u>, pour stimuler les initiatives en jardin potager dans le but d'améliorer la qualité de nourriture et sécuriser les revenus. Initialement, il est proposé de commencer par les arbres fruitiers, préparation et séchage et confinement;
- 7. <u>Appui aux organisations communautaires en matière d'éducation pour adulte et formations selon les besoins</u>: gestion des affaires, préparation des projets de financement, techniques pratiques, et technique de leadership;
- 8. <u>Les bons exemples de l'ADSEI et le Parc Marin de Mohéli peuvent être diversifiés</u> et développés dans d'éducation des autres communautés dans toute l'île, à titre d'exemple,

- offrir aux écoliers des visites dans le Parc Marin et des voyages d'études aux colonies de tortues;
- 9. <u>Distribution des terres et amélioration du système foncier</u>, pour améliorer le climat des affaires aux membres de la communauté en collaboration étroite avec le service gouvernemental concerné;
- 10. <u>Le développement du tourisme éco-communautaire</u>, pour durabiliser le tourisme dans la zone et partager les bénéfices aux communautés locales;
- 11. <u>L'initiative à la recherche marine</u> encourage les chercheurs locaux et internationaux à venir à Mohéli pour évaluer les réserves et améliorer le système de gestion;
- 12. Le financement pour l'Aire Protégée de Mohéli améliore le renforcement des lois;
- 13. <u>Une meilleure communication entre l'instance gouvernementale et la communauté</u> encourage la population à participer davantage dans le planning et la mise en place.



Figure 1: Children on the beach in Itsamia, Mohéli

#### 2. Introduction

#### 2.1. Background of the Project

The Agulhas and Somali Currents Large Marine Ecosystems (ASCLME) is a regional project funded by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). It is a regional programme that embraces a Large Marine Ecosystem (LME) approach to the management of the marine resources and the coastal areas flanked by the Agulhas and Somali Current LMEs. The ASCLME Project is currently in its planning phase, and it supports nine African nations, including Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa and Tanzania, who share the resources of these two marine ecosystems located within the Western Indian Ocean (WIO).

One of the objectives of the ASCLME Project is to acquire sufficient baseline data to support an ecosystem-based approach to the management of the ASCLME. Towards this overall objective, the ASCLME Project is adopting the DLIST (Distance Learning and Information Sharing Tool) as one of its approaches to develop effective communications between and among stakeholders and decision makers within the region. This tool focuses on the creation of effective and sustainable mechanisms that allow for continuing opportunity for the local communities and decision makers to engage in effective two way communication over time, and thus help ensure a continuing two way flow of information between community level stakeholders and decision-makers.

The DLIST intervention is two-fold with a web-based platform (<a href="www.dlist-asclme.org">www.dlist-asclme.org</a>) offering online distance learning courses, a discussion forum, a document and photo library etc. To encourage stakeholders without access to internet to take an active part in the planning phase of the project, DLIST works with demonstration site communities in all of the

participating countries, except Somalia. As part of the DLIST demonstration site intervention, field visits have been for direct, face-to-face conducted interactions with local communities, as well as with government and nongovernment authorities. The planning process follows a Local Development (LED) planning approach. The fishing communities in and around the Mohéli Marine Park were selected as DLIST demonstration the site Comoros.

According to the World Bank "the purpose of local economic development (LED) is to build up the economic capacity of a local area to improve its economic future and quality of life for all. It is a process by which public, business and non-government sector partners work collectively to create better conditions for economic growth and employment".

The information collected during the planning activities is used for two parallel purposes; to inform the development of a Strategic Action Programme (SAP) for the implementation

phase of the ASCLME Project, and to develop a free standing Development Plan with the purpose to build up the economic capacity of the local area in the demonstration site in such a way that its economic future can be improved, with a positive impact on the quality of life for all inhabitants.

The Development Plan has from the very beginning had a focus on coastal and marine resource management, and it tries to optimize existing economic opportunities for future development and improvement of the way the resources are used on the public beach. The Development Plan aims to foster and maintain a higher quality of life by unlocking local economic development opportunities. A good Local Economic Development (LED) Plan may typically call for improved livelihood options by rectifying weaknesses and optimizing opportunities existing in the area, that have been identified by the community during the LED planning process. The LED Plan may also inform certain private sector initiatives. Further, a good LED Plan can also assist in unlocking donor-funded interventions. Without a LED Plan, development at the local level runs the risk of ending up consisting mostly of ad

hoc interventions, or projects that have been planned for the community by people situated far away from their day-to-day realities, rather than well planned interventions as identified by the community themselves.

Sustainable development is a development that meets the needs of the present without compromising the ability of future generation to meet their own needs. It is generally accepted that a balance between Economic, Environmental and Social dimensions have to be achieved in the pursuit of sustainability. UNESCO adds a fourth pillar, namely Culture.

Making a LED Plan requires a collective vision formulated by the local community. The vision defines a point somewhere in the future to which the community aspires. The vision is the guiding light for the development of strategies that are rooted in a situational analysis of the economic potential that exists locally. Ground level realities and the specificities of the area have to be taken into account to ensure that plans and expectations are realistic. The LED Plan harnesses the input from the local community, government, regional authorities, and other role players into a set of strategies and guidelines aimed at creating a suitable climate for sound, equitable development and economic growth. The current Development Plan for the Fishing Community in Mohéli embraces local values, and strikes a clear balance between socio-cultural, environmental and economic issues of the fishing community.

#### 2.2. Purpose

The overall purpose of the development planning initiative, through the DLIST ASCLME Project, was to design a strategy that would unlock economic growth potential in Mohéli, more specifically:

- i. To produce a Situational Analysis (SA) of existing and potential opportunities, potential obstacles, socio-economic profile of the studied population, as well as other necessary information that have a potential for resource conservation and socio-economic development. The SA provides the rational basis for the Development Plan.
- ii. To develop a Development Plan in a participatory manner involving all stakeholders, that is, local and other beneficiaries as well as entities that can contribute to the implementation of the Plan.
- iii. To produce an implementation plan for proposed interventions that have been identified during the process.

#### 2.3. Mohéli, Comoros

Comoros has a total population of less than 800,000 inhabitants, with a small surface area, making it one of the most densely populated countries in Africa. The island of Mohéli is the smallest of the three main islands (see Map 1), with a total population of 38,000 (according to the census in 2006) of which the majority lives in the capital Fomboni. Mohéli is a green island where people live in small villages and are highly dependent on marine and coastal resources for their livelihoods. The main income generating activities are artisanal fishing (line and hook), collection of shellfish at low tide as well as small scale integrated farming in the forests (e.g. coffee, vanilla, ylang-ylang). In close collaboration with the ASCLME focal point in the Comoros, representatives from the Ministry of Agriculture, Fishing and the Environment in Mohéli and representatives from the Mohéli Marine Park (PMM), three villages on Mohéli were suggested to be the main target for the DLIST intervention in Comoros. The three villages are Nioumachoua in the south, Ndrondroni to the west of Noiumachoua, and Hoani in the north.



Map 1: Mohéli Island showing the border of the marine park and the special protection zones

The southern side of Mohéli is dotted with many small islets (see Figure 2), healthy coral reefs, some mangrove areas, and seagrass beds. It is one of the most important breeding grounds for green turtles in the Western Indian Ocean and is home to healthy populations of reef fish as well as larger predatory fish such as sharks, stingrays, trevallys and barracudas. There is also a population of dugongs in this area.

"Parc The Marine du Mohéli" (PMM) was initiated in 1995 with funding and support from UNDP, IUCN, and Government of Comoros. It was officially gazetted as a Marine Park in 2001. The protected area covers 40,000 ha and includes all marine environments to a depth of 100 m on the southern side of the island, from north of Itsamia in the east, close to Miringoni in west. There is the

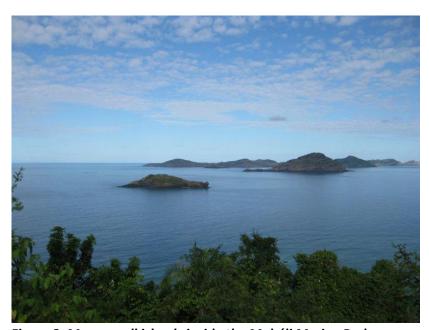


Figure 2: Many small islands inside the Mohéli Marine Park

management committee in place with members from each of the village committees,

representatives from the Ministry of Environment, Ministry of Tourism as well as the private sector. The park was started as a co-management initiative and the communities agreed to the set up of the park. Inside the park, fishing is still allowed but restricted in terms of what gear can be used. Any type of net fishing, spear guns, dynamite and poison fishing is banned inside the MPA and it is well respected, which leads to health reefs and fish populations (see Figure 3). Initially there were some "core zones" where no fishing should be allowed put in place, based on where the community wanted them to be. This has however never really been enforced and the suggested areas might not even be the most suitable areas as they were not suggested based on habitat and species diversity.



Figure 3: Healthy reef environment with large schools of fish inside the Mohéli Marine Park

In total there are 10 official villages inside the Marine Park, with around 14-16,000 inhabitants. During 2001-2004, the park had access to large funding and a system was put in place where each village should have its own committee and so called "eco-guards" to work with the park management for monitoring and surveillance. There were a total of 12 coast guards and they had policing rights, access to speed boats, fuel etc. Many villages were given assistance such as a new boat for the fishers association, bungalows were built in the village for the village association to be able to run a small tourism operation and create revenue. Today, however only 3-4 of the associations work well and the others have died out because of lack of funding. In 2008 the Marine Park were given a grant from IOC (Indian Ocean

Commission) and ReCoMap to revive the park activities and update the management plan. The ReCoMap funding only covers the first year of implementation of the new management plan for the park and they wish they could also get some financial support from the Government of Comoros to ensure they can achieve the objectives. The Marine Park also sees the need to expand their activities to include more villages and protect more forest areas, as well as turtle nesting sites.

Some fishers, fishing inside the MPA, report that the fish stocks have increased in the recent years. This increase would be attributed to the successful management and enforcement of the fishing restrictions inside the MPA. Outside the MPA fishers report decreasing catches. Also the number of nesting turtles on the beaches is going down according to many people. One of the reasons for the decline is development in the villages, another is poaching of nesting turtles and one new major factor is the coastal erosion which disturbs the traditional nesting areas. The coastal erosion is increased by the common activity to collect sand on the beaches for construction, even if this activity is illegal (see Figure 4). During certain seasons the coral reefs are also affected by bleaching. Figure 4: Piles of beach sand along a wall in The people who are originally from Mohéli Nioumachoua have in general showed a positive attitude



towards the marine park. The communities feel that they are involved and they benefit from the conservation activities through better fish catch, the construction of community managed tourism bungalows etc.

#### 3. Methodology

Broad-based consultations, discussions and interviews were conducted by the DLIST team during a site visit in June 2010. This section outlines and explains the adaptive methods and approaches used during the project duration. Figure 5 presents the methodology adapted for the development of the Development Plan for the Fishing Community in Mohéli in the form of a flowchart.

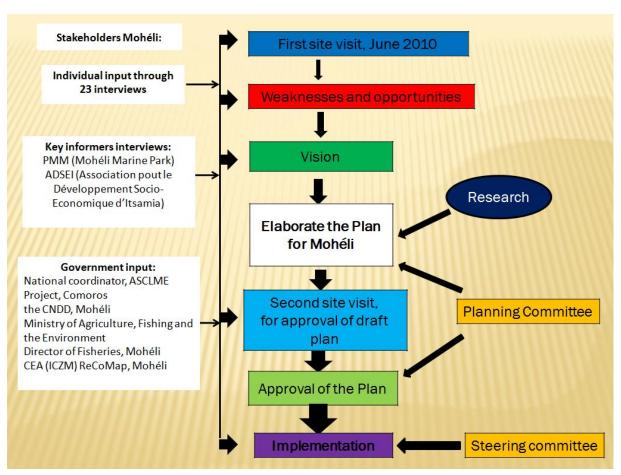


Figure 5: The planning approach used for the Development Plan for the Fishing Community in Mohéli, Comoros

Central to the development of any Local Economic Development (LED) Plan is consultation with the local community and stakeholders. At Mohéli this has been done in several ways, namely in the forms of stakeholder group meetings/visioning exercises, key-informer's interviews, and interviews with individual stakeholders in the fishing villages of Nioumachoua, Ndrondroni and Hoani.

#### 3.1. Phase 1: June 2010

The planning process started with the first site visit in June 2010, when the team met with a number of stakeholders in the fishing communities, conducted 23 individual interviews, met with key informers and met with Government representatives (see first blue box in Figure 5). The purpose of the site visit was to introduce the project, to conduct stakeholder group visioning meetings, to collect LED input through individual interviews, to conduct film screening events and to meet with and interview key informers (Government and Non-Government Authorities, Parastatals, NGOs, etc.); with the main purpose of identifying weaknesses and issues with the current situation for the fishing community in Mohéli, and to identify opportunities that could be further developed to improve the situation as well as to come up with some proposed interventions. Another important task of this site visit was to collect stakeholder input for a draft vision for the future and to select representatives from the communities in Nioumachoua, Ndrondroni and Hoani for the Planning Committee.

The involvement of all development stakeholders in the area has ensured that the process has been fully participatory and transparent.

#### 3.1.1. Planning Committee

During the group meetings organised with the Fishing Communities in Nioumachoua, Ndrondroni and Hoani, each group were encouraged to select two representatives for the Development Planning Committee. The main purpose of this Planning Committee was to function as contact people to the DLIST team in case they needed additional information about something or if they wanted to give feedback etc. Table 1 shows an overview of the selected community members.

Table 1: Selected representatives for the Planning Committee for the Fishing Community at Mohéli

|   | Name               | Group       | Contact           |
|---|--------------------|-------------|-------------------|
| 1 | Sumalia Hamadi     | Nioumachoua | Tel: +269-3244380 |
| 2 | Zaki Mavani        | Nioumachoua |                   |
| 3 | Said Bacar         | Ndrondroni  |                   |
| 4 | Abdouroihamane Mze | Ndrondroni  |                   |
| 5 | Yussuf Madi        | Hoani       | Tel: +269-3243343 |
| 6 | Elanrif Moidjie    | Hoani       | Tel: +269-3221925 |

#### 3.1.2. Individual interviews

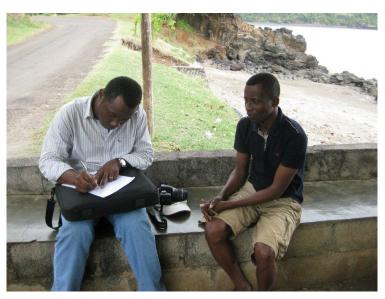


Figure 6: The DLIST team conducting interviews in Hoani

Socio-economic research conducted with people in the fishing communities (see Figure 6). The questionnaire that was used is found in Appendix I attached to this report. The purpose was to collect important socio-economic information, information about programs and projects that have been active in Mohéli, information about fishing sites and issues related to fishing and the marine resources, as well as gathering individual opinions on the weaknesses, opportunities and the future vision.

A total of 23 individual interviews were conducted by the ASCLME National Focal Point Mr Farid Anasse, Mr Aboubacar Ben Allaoui from the Ministry of Environment and Permanent Secretary for the CNDD, and the DLIST team with the support from two field assistants from the Mohéli Marine Park (PMM).

#### 3.1.3. Stakeholder group visioning exercises

Three group visioning exercises were conducted with groups of fishers at the three selected target villages; Nioumachoua (see Figure 7), Ndrondroni and Hoani (listed on the left side in

Figure 5 above). The aim of the discussions was gather input from the to identify groups weaknesses and opportunities for sustainable development among the communities on Mohéli, with a particular focus on the fishers and the users of marine and coastal resources. The identified issues and opportunities



and the overall discussion Figure 7: Group visioning exercise in Nioumachoua

with each group was used to give input to a draft vision for the future development of Fishing Community in Mohéli.

#### 3.1.4. Key informers interviews

A number of meetings were also arranged with key informers in the area during this site visit. The discussions were open, but followed the main points and outline of the key informers' questionnaire attached in Appendix II. The following people/authorities have given input to the planning process;

- i. The Ministry of Agriculture, Fishing and the Environment (both the national office and the Mohéli Island office) Mr Farid Anasse (National Coordinator ASCLME Project and Head of the GIS Department at the Ministry of Agriculture, Fishing and the Environment, Email: <a href="mailto:farid anasse@yahoo.fr">farid anasse@yahoo.fr</a>, Tel: +269-3327068), Mr Abubacar Ben Allaoui (Head of Planning and Evaluation, Ministry of Environment and Permanent Secretary for the CNDD, Email: <a href="mailto:benallaoui@hotmail.com">benallaoui@hotmail.com</a>, Tel: +269-3333060), Mr Daroussi Bacar Issouf (Commissioner at the Ministry of Agriculture, Fishing and the Environment, Mohéli, Tel: +269-3328397 (mob) or +269-7720912 (office)), Mr Faissoili ben Mohadji (Director General of Agriculture and Environment, Mohéli, Email: <a href="mailto:faissoilibenmohadji@yahoo.fr">faissoilibenmohadji@yahoo.fr</a>, Tel: +269-3320040), Mr Kamardine Boinali (Director of Fisheries, Mohéli, Email: <a href="mailto:boinalikamar@yahoo.com">boinalikamar@yahoo.com</a>, Tel: +269-3326610), Mr Loutfi Maoli (Responsible for CEA (ICZM) ReCoMap, Mohéli, Email: <a href="mailto:Loutma2010@yahoo.fr">Loutma2010@yahoo.fr</a> Tel: +269-3320462), and Mr Said Abdoulbak Attoumene (responsible for "halientique" resources, Fisheries, Mohéli, Tel: +269-3203175).
- ii. Mohéli Marine Park (Parc Marine du Mohéli, PMM) Mr Francois Beaudard (PMM Technical Assistant, Email: <a href="mailto:contact@moheli-marinepark.org">contact@moheli-marinepark.org</a> or <a href="mailto:Francois.beaudard@afup-up.org">Francois.beaudard@afup-up.org</a> Tel: +269-3386699), and Mr Mouchtadi Madi Bandou (Staff member of the PMM, Email: <a href="mailto:mouchtamadi@yahoo.fr">mouchtamadi@yahoo.fr</a>, Tel: +269-3211269).
- iii. Association pour le Développement Socio-économique d'Itsamia (ADSEI) Mr Anfani Msoili (Director ADSEI, Email: amsoili@yahoo.fr, Tel +269-3320111/7728062)

#### 3.1.5. DLIST film festival screening events

During the trip to Mohéli, two official film screening events were organised — one in Nioumachoua and one in Itsamia. Also an informal film screening event was organised in Hoani were around 20 people watched the ASCLME educational film on a lap-top computer screen.

#### Nioumachoua (June 16<sup>th</sup>)

In the evening of the 16<sup>th</sup> of June a DLIST film festival was arranged in Nioumachoi. The screening was arranged outside, next to the fish centre and more than 70 people participated. The following films were showed;

- i. The ASCLME educational film
- ii. Underwater shots from TUMCA and CHABAMCA Marine Conservation Areas in Zanzibar
- iii. A Hell of Fishing (by Vincent Bruno)

People found the films very interesting and a discussion started after the last movie where they were mainly asking questions related to A Hell of Fishing. One of the fishers asked why countries in Africa agree to writing fishing agreements with the European Union if it is all so unfair. Another fisher pointed out that illegal foreign vessels that threaten their resources, often fish very far out and it is hard for anyone to do something about it. It was then suggested that the local fishers should work closely with the managers of the Marine Park to address this issue. Also projects like the ASCLME project are trying to address this problem on a higher regional level.

#### Hoani (June 17<sup>th</sup>)

After the initial meeting with the fishers, when the individual interviews were conducted, an improvised film screening was arranged under a tree. Around 25 people watched, of which 10 were children. The following films were screened;

- Underwater shots from TUMCA and CHABAMCA Marine Conservation Areas in Zanzibar
- ii. The ASCLME educational film
- iii. Underwater shots from the Bazaruto Archipelago in Mozambique

#### Itsamia (June 17<sup>th</sup>)

An evening film screening was arranged in the turtle centre in Itsamia on June 17<sup>th</sup>. A total of around 70 villagers participated of which 20 where children. Due to lack of sun during the day, the solar system was not charged enough and a generator had to be used which made the hall noisy and it was hard for people to hear properly. The people who attended still appreciated the film screening event. The following films were showed;



Figure 8: Film screening event in Itsamia

i. The ASCLME educational film

- ii. Underwater shots from TUMCA and CHABAMCA Marine Conservation Areas in Zanzibar
- iii. A Hell of Fishing (by Vincent Bruno)

#### 3.2. Phase 2: Second site visit

One more site visit should be conducted in the near future. A community meeting should be conducted with the fishing community members in Nioumachoua, Ndrondroni and Hoani to give feedback on the results from the group visioning exercises, the individual interviews and key informers interviews (represented by the last blue box in Figure 5 above). The draft vision needs input from the community and all comments and feedback should be incorporated in the plan including the proposed interventions and possible solutions suggested in section four.

A steering committee also needs to be set up for the implementation, and this issue needs to be discussed at the community meetings. It is possible that the existing Planning Committee (see Table 1) will fill this role initially.

#### 4. Outcomes

#### 4.1. Individual Interviews

Interviews followed an open format style; while there were questions, they were designed to encourage participants to speak freely and add whatever information they felt may be relevant to the socio-economic profile of the beach community or the development of a plan for the future development for the Fishing Community in Mohéli. The purpose was not to arrive at a detailed analysis of all aspects of the community but to obtain reliable broad trends and to find out what aspects could be address by the plan, based on the 23 individual interviews conducted. It investigated age and gender, education level, number of dependants in the households, existing economic livelihood activities and income sufficiency of the local inhabitants. The interviews also went into quite some detail with regards to fishing activities, main fishing sites, and state of the marine resources in the area. The analysis also examines the current development stakeholders in the area.

The interview sheet used for these interviews is found in Appendix I.

#### 4.1.1. Age composition

The age composition of the interviewed fishers and community members shows that a relatively low percentage of the fishers are young. Less than 25% of the interviewees are below 30 years of age. The largest group of fishers fall in the 30-39 year category, with around 35% in this age group. Just over 20% falls in the age group 40-49, and another 20% are above 50 years old (see Figure 9).

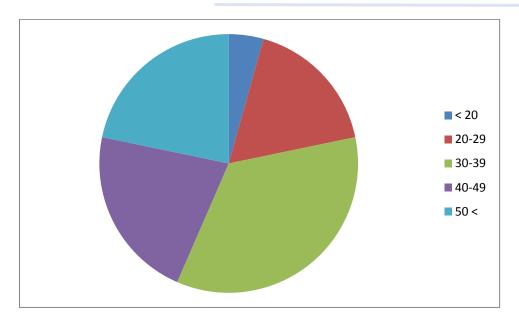


Figure 9: Age groups of the interviewed fishers in Mohéli

#### 4.1.2. Education level

The interviews also included a question about what level of education the respondents have and the result clearly show that many of the members of the communities in these three villages have low education level. 35% have no schooling at all, while an additional 17% have not completed primary school. Around 35% have completed primary school and only 13% have completed secondary school or higher education (see Figure 10).

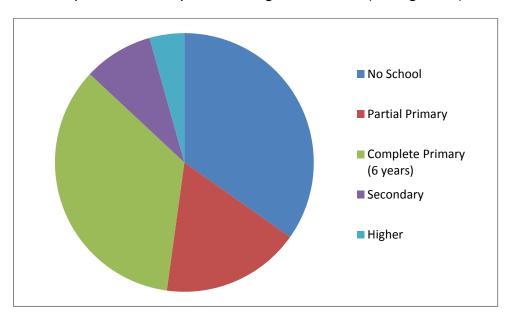


Figure 10: Education level among the interviewees

#### 4.1.3. Livelihoods activities

The livelihoods activities among the interviewees show that almost 100% of the people depend on fishing and some supplementary agriculture, such as vanilla, banana and animal husbandry. Two respondents mentioned that they can do some construction work if the fishing or agriculture fails.

#### 4.1.4. Income sufficiency

When asked about income sufficiency, more than 90% of the respondents say that the income they make from their livelihoods activity is not sufficient to make a living (Figure 11).

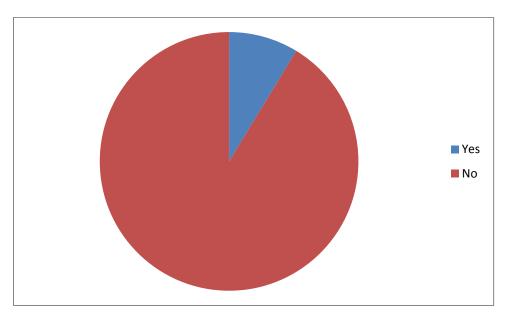


Figure 11: Income sufficiency among beach stakeholders

The reason for this income insufficiency was also investigated as part of the interview. The answers given by the respondents mentioned reasons like "there is a problem to transport my fish to the place where I can sell it", or "everything is too expensive". Some people mentioned lack of fish as a reason for the income insufficiency while another interviewee said that the needs of his family are too expensive.

It has also been found that most of the interviewees support quite a few people on this "insufficient" income, with almost 40% supporting between 6-10 people and more than 20% supporting more than 11 people, with some even more than 20 people (see Figure 12).

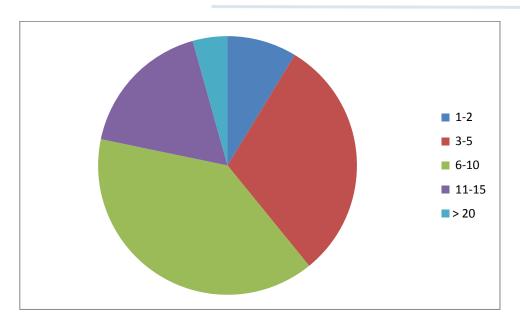


Figure 12: Number of dependants among the interviewed beach stakeholders

#### 4.1.5. Weaknesses, issues and opportunities

The interviews also collected information from the individuals related to weaknesses and opportunities for the future development for the fishing community in Mohéli. Many points are the same as the ones raised in the stakeholder group meetings in section 4.2., and most likely this is because the interviews were conducted at the same time as the stakeholder group meetings. Many of the interviewed people had therefore already attended a group meeting before being interviewed. All weaknesses/issues, opportunities and the input for the vision that came out from the individual interviews are listed below;

#### Weaknesses and issues:

- 1. People don't respect the rules of the village and the MPA;
- 2. There is a lack of beach management;
- 3. Lack of capacity within the community associations;
- People in charge don't take their responsibility;
- 5. There is no waste management;
- 6. There is not enough electricity for the fish centre (in Nioumachoua);
- 7. There is a lack of communication;
- 8. Lack of funds for development;
- 9. Lack of community services;
- 10. There is not enough space/land available in the community for development;
- 11. People and the associations are not well organised;
- 12. There is no good leadership in the village;
- 13. People lack education;
- 14. It is difficult when people from the other islands come here to Mohéli;
- 15. There is no electricity;

- 16. There is a lack of community participation;
- 17. There are no jobs for young people;
- 18. The beach is dirty.

# **Opportunities:**

- Fishing is still good and the sea is rich (Figure 13);
- 2. The Marine Park is good because it protects the fish and it brings visitors;
- 3. The village associations could be made stronger;
- 4. The area has beautiful beaches and islands;
- There is a waterfall, which could be used to produce electricity;



Figure 13: Rich marine resources around Mohéli

- 6. The soil is fertile for agriculture;
- 7. The villages are peaceful;
- 8. There are good relationships between the village and the MPA;
- 9. The rich heritage and culture could be used for tourism.

#### Input for the future vision:

- We need a youth centre;
- There should be more employment among the community members;
- We should have better access to a market area for fish and other products;
- We need a functional cold storage facility for the fish;
- A Fish Attraction Device (FAD) should be installed in our area;
- The area should have more tourists and trade;
- A new port;
- All development should be harmonious;
- There should be better collaboration between communities;
- More activities for the youth;
- Improved hygiene in the village;
- Better drainage and water access;
- Improved infrastructure including a better road;
- Access to better education, including a college;
- More environmental education for the communities;
- Better law enforcement to stop poaching in the MPA and sand mining on the beaches;

- We need a community meeting hall/area;
- Improved communication within the communities and between communities and Government;
- We need electricity.

#### 4.1.6. Attitude towards conservation efforts

The questionnaire included questions related to NGOs and conservation efforts. Most interviewees are aware of NGOs of projects that have done things in their community. Many mention the different community associations, such as the Fishers Association, the Women's Association and the Culture Association to have contributed to development in different ways. Others that are mentioned in the interviews include the MPA, FADC (have renovated class rooms among other things), ReCoMaP, PACQ, the Turtle conservation initiative, Ulanga (have contributed to the fish centre) and FADESIME.

Most of the interviewees are very positive to the Mohéli Marine Park. They mention that the MPA has contributed to education and training of community members, that it has provided jobs for community members as rangers, that it has contributed to improved community structures and of course that it protects the natural resources (both marine and forests have been mentioned). Those few interviewees who said they don't like the marine park pointed out issues like that the income from the park is not shared with the community, and lack of communication and information about the marine park and its activities. It should however be noted that more than 70% of the respondents want the marine conservation area to expand. Of the 5 people that said they don't want it to expand, two said that the MPA should first focus on improving enforcement within the existing MPA. Only one respondent wanted the current MPA to be opened to free fishing. Compared to other coastal communities in the Western Indian Ocean this shows very high community support for the existing MPA structure and management.

#### 4.1.7. Threats to the environment

It should be noted that all of the respondents have said that they would like to get more environmental education. Most of the interviewees agree that illegal turtle harvesting is still happening (see Figure 14) and a few also admit that they sometimes see killing and harvesting of dolphins.

As threats to the environment, the most common answers include coral reef destruction, illegal poaching of turtles, mangrove cutting, slash and burn



rtles, Figure 14: Turtle poaching is still frequent in the burn Marine Park

agriculture, and deforestation as well as the sand mining along the beaches. One person even mentioned dynamite fishing as a threat to the environment.

# 4.2. Group visioning exercises

The three fishing communities selected as the main target areas for this intervention, Nioumachoua, Ndrondroni, and Hoani, participated in group visioning exercises to identify weaknesses, opportunities and to give input to a common future vision for the Fishing Community in Mohéli.

The below lists issues and weaknesses;

- 1. There are too many projects coming and going in this area and nothing ever happens that improves our situation;
- 2. The fish centre in Nioumachoua cannot operate because of lack of electricity in the
  - village and lack of funds for operations, and lack of training for members of the fishing association (see Figure 15);
- There is a general lack of management capacity within the village associations and fishing associations;
- There is an acute lack of fish cold storage- and transport facilities for local fishers all over Mohéli;
- 5. The fishing associations lack access to bigger boats (to be able to fish further out at sea, and to be able to transport the fish catch to Grande Comoros;
- 6. The fishing associations also lack marine safety equipment such as marine radios and GPS (for finding the way);
- 7. The price for fish in Mohéli is very low (25% of the price in Grande Comoros);
- 8. The fishing associations need training in new and improved fishing techniques;
- 9. There is a big problem with beach erosion;
- 10. Many people practice sand mining on the beaches, even if it is illegal;
- 11. There is a lack of law enforcement (the sand mining is very common even if it is illegal);
- 12. Many communities on Mohéli lack access to electricity<sup>2</sup>;
- 13. The hospital services are inadequate<sup>3</sup>;
- 14. The schools are overcrowded;

<sup>&</sup>lt;sup>2</sup> In Nioumachoua for example the electricity is supplied by a large generator, which is operating from 5 pm to 1 am

<sup>&</sup>lt;sup>3</sup> Often there is no staff at the hospital since they often don't get paid for long periods of time.

- 15. There is no secondary school in Nioumachoua or Ndrondroni, which discourages youth to continue their education beyond primary level as they must move away from the village to continue their education;
- 16. There is a general lack of access to toilets in the villages;
- 17. In some seasons there is a problem with hygiene related diseases such as cholera;
- 18. Deforestation is increasing, and this causes sedimentation in the marine environment;
- 19. Education has low priority among young people in many communities;
- 20. Turtle poaching is a problem<sup>4</sup>;
- 21. People sometimes see illegal, foreign fishing vessels coming into waters not so far from the islands.

People also listed opportunities for good development in the area such as;

- 1. To increase revenue the fishers urgently need access to cold storage facilities and transport facilities (by car to Fomboni, or by boat direct to Grande Comoros where the price for fish is much higher);
- 2. To provide training for the fishers in modern fishing techniques would increase the catch and the revenue for the communities;
- 3. A machine to crush stones could be introduced to give people an alternative to sand mining;
- 4. The MPA has been very good for the area as the fish catches have increased since it was put in place;
- 5. Many communities in Mohéli want to know more about the ADSEI turtle initiative in Itsamia, so they could replicate something similar in their own villages;
- 6. There is a microfinance organisation (Sanduku) operating on Mohéli, but the funds are relatively small and the fishers need training on how to access and manage such funds.

Table 2 below includes the overall issues grouped into main topics listed by the groups, with linked opportunities and some relevant comments to be considered.

Table 2: Weaknesses, opportunities and suggestions concluded from the fishing community group meetings at Mohéli

| Category      | Weaknesses         | Opportunities                      | Remarks/Suggestions                  |
|---------------|--------------------|------------------------------------|--------------------------------------|
| Environmental | Sand mining on the | Introduce a stone                  | Overall improved                     |
| issues        | beaches            | crushing machine to                | enforcement of                       |
|               | Beach erosion      | give people an alternative to sand | existing laws and would address many |
|               |                    | mining                             | of these issues                      |

<sup>&</sup>lt;sup>4</sup> The communities on Mohéli blame this activity on people from the Island of Anjouan

|                                | Turtle poaching  Deforestation   | Overall improved law enforcement for sand mining and turtle poaching Increase awareness about the negative impacts of deforestation and introduce briquette making        | Overall support to improved environmental awareness will also contribute greatly  Financial support for specific interventions will be needed  |
|--------------------------------|--|---|--|
|                                | Lack of access to sanitation Cholera outbreaks   | Construct more public toilets and drainage systems Introduce rain water harvesting  |  |
| Lack of funding and investment | Lack of capital for investments needed in the fisheries sector   | The fishers needs training in how to access bank loans and community funds for investments Increased government support would be appreciated                              | With training on how<br>to access funds, the<br>organised community<br>groups could improve<br>and develop their<br>current businesses   |
| Education and training         | Fishers need training in modern techniques for fishing and boat maintenance  The schools need to be upgraded and expanded to accommodate the growing village communities | The fishers say they need training in modern techniques to increase their income  Better access to schools locally would encourage the children to continue their studies | The marine park could be involved and coordinate training with the fishers on the island  The government needs to find funding to expand the schools.  Donor support might be needed |

| Lack of equipments     | The fishers need                        | Revenue can be           | The issue of            |
|------------------------|---|--------------------------|-------------------------|
| and facilities for the | cold storage                            | increased, as the        | inadequate electricity  |
| fishers                | facilities for the fish                 | fishers then don't       | supply and lack of      |
|                        | catch to be able to                     | have to sell all fish in | funds for operations    |
|                        | increase revenue                        | one go                   | must be taken into      |
|                        |   |                          | consideration to make   |
|                        |   |                          | the intervention        |
|                        |   |                          | sustainable             |
|                        |   |                          | C1 ·                    |
|                        | Fishers need bigger                     | With the bigger boats    | The use of bigger       |
|                        | boats, marine radios                    | they could fish          | boats and GPS must      |
|                        | and GPS                                 | further from shore,      | be combined with        |
|                        |   | and with the             | training to the fishers |
|                        |   | combination of big       | on how to use these     |
|                        |   | boat and GPS they        | tools                   |
|                        |   | will be able to travel   |                         |
|                        |   | to Grande Comoros        |                         |
|                        |   | to sell the fish at a    | For the operations of   |
|                        |   | higher price             | the marine radios, it   |
|                        |   | Marine radios will       | has been suggested      |
|                        |   | increase safety          | that it is coordinated  |
|                        |   | increase sarety          | by MPA head quarters    |
| Infrastructure and     | There is a lack of                      | The lack of electricity  | Alternative electricity |
| equipment/facilities   | electricity supply                      | hinders any              | supply through solar    |
|                        | , | development in the       | and/or wind power or    |
|                        |   | area                     | biogas turbines should  |
|                        | Lack of public toilets                  |                          | be explored             |
|                        | Lack of public tolicts                  | This causes pollution    | ·                       |
|                        |   | and health problems      | More public toilets     |
|                        |   | (particularly in the     | need to be built        |
|                        |   | rainy season)            |                         |
|                        |   |                          |                         |
|                        |   |                          | The hospital service    |
|                        | Lack of service at                      | Causes bad health        | needs to be improved    |
|                        | the Nioumachoua                         | among the                | Donor support might     |
|                        | hospital                                | community members        | be needed               |
|                        |   |                          | Defreeded               |

### 4.3. Key Informers' Interviews

A number of meetings were conducted with key informers, people who are well informed of the situation related to marine and coastal resources and the communities on Mohéli.

- i. The Ministry of Agriculture, Fishing and the Environment (both the national office and the Mohéli Island office) Mr Farid Anasse (National Coordinator ASCLME Project and Head of the GIS Department at the Ministry of Agriculture, Fishing and the Environment, Email: <a href="mailto:farid anasse@yahoo.fr">farid anasse@yahoo.fr</a>, Tel: +269-3327068), Mr Abubacar Ben Allaoui (Head of Planning and Evaluation, Ministry of Environment and Permanent Secretary for the CNDD, Email: <a href="mailto:benallaoui@hotmail.com">benallaoui@hotmail.com</a>, Tel: +269-3333060), Mr Daroussi Bacar Issouf (Commissioner at the Ministry of Agriculture, Fishing and the Environment, Mohéli, Tel: +269-3328397 (mob) or +269-7720912 (office)), Mr Faissoili ben Mohadji (Director General of Agriculture and Environment, Mohéli, Email: <a href="mailto:faissoilibenmohadji@yahoo.fr">faissoilibenmohadji@yahoo.fr</a>, Tel: +269-3320040), Mr Kamardine Boinali (Director of Fisheries, Mohéli, Email: <a href="mailto:boinalikamar@yahoo.com">boinalikamar@yahoo.com</a>, Tel: +269-3326610), Mr Loutfi Maoli (Responsible for CEA (ICZM) ReCoMap, Mohéli, Email: <a href="mailto:Loutma2010@yahoo.fr">Loutma2010@yahoo.fr</a> Tel: +269-3320462), and Mr Said Abdoulbak Attoumene (Responsible for "halientique" resources, Fisheries, Mohéli, Tel: +269-3203175).
- ii. Mohéli Marine Park (Parc Marine du Mohéli, PMM) Mr Francois Beaudard (PMM Technical Assistant, Email: <a href="mailto:contact@moheli-marinepark.org">contact@moheli-marinepark.org</a> or <a href="mailto:Francois.beaudard@afup-up.org">Francois.beaudard@afup-up.org</a> Tel: +269-3386699), and Mr Mouchtadi Madi Bandou (Staff member of the PMM, Email: <a href="mailto:mouchtamadi@yahoo.fr">mouchtamadi@yahoo.fr</a>, Tel: +269-3211269).
- iii. **Association pour le Développement Socio-économique d'Itsamia (ADSEI)** Mr Anfani Msoili (Director ADSEI, Email: amsoili@yahoo.fr, Tel +269-3320111/7728062).

# 4.3.1. Ministry of Agriculture, Fishing and the Environment

An initial introductory meeting with Mr Farid Anasse and the DLIST team was arranged in Moroni on June 12<sup>th</sup>, 2010. Mr Farid Anasse explained that Comoros has a national institution for coordinating issues related to environment called the "Comité National pour le Développement Durable", CNDD (National Committee for Sustainable Development). This committee was introduced already in 1994 with members from most of the Government Ministries such as the Ministry of Agriculture, Fishing and the Environment, the Ministry of Tourism etc. The Committee is under the Ministry of Agriculture, Fishing and the Environment and the Minister functions as the Permanent Secretary for the Committee. Each island, Grand Comoros, Mohéli and Anjouan has its own sub-committee, "Comité Insulaire pour le Développement Durable", CIDD (Island Committee for Sustainable Development). The Committee had limited funding for their actives initially and was struggling to achieve their goals. In the recent years however, ReCoMap has funded activities related to Integrated Coastal Zone Management (ICZM) planning issues. The responsibility of

the ASCLME Project, including DLIST, lies within the CNDD and the CIDD of Mohéli in particular for the DLIST demonstration site.

Another meeting was arranged with representatives from the Ministry of Agriculture, Fishing and the Environment on Mohéli on 14<sup>th</sup> June, 2010, in Fomboni, the main town on Mohéli.

The existing situation in Mohéli was discussed and it was clarified that there is a well developed system with well established village associations all over Mohéli. These associations were very helpful when the Marine Park was initially set up between 1995 and 2001. The associations work for the protection of the environment. In the current situation in Mohéli, more than 50% of the population live on the northern side of the island, where there is no protection of the resources. It has been proposed that the Marine Park should be extended to cover the entire island, including the forest. To get more knowledge about the situation all over the island, the Director of Environment, Mr Faissoili Ben Mohadji, suggested that the DLIST project should include one of the villages on the northern side. After a short discussion it was agreed that Hoani would be the selected community as it is a village with people originating from all over Comoros and the associations have not been very successful until now.

Even inside the Marine Park, some of the villages have an issue with a very high rate of immigration, mainly from the island of Anjouan. The immigrants don't integrate well in the Mohéli communities as they care less about the environment and sustainable development. It was therefore suggested that the DLIST team should consult with the Marine Park management to select the most suitable villages for this project.

The representatives were very interested to know more about the DLIST project and they all want to be signed up as members on the DLIST website. They also identified many other questions and issues they would like to see addressed, related to marine and coastal resources. Some of these issues fit better in to the wider framework of the ASCLME project rather than the DLIST project, which focuses more directly on stakeholder involvement and improved communication. The issues mentioned were;

- i. Undertaking large scale fish stock analyses to set allowable fish quotas at the best rate,
- ii. to investigate why Comoros doesn't have prawns (there are plenty of lobster and crabs, but no prawns are found, even in the biggest mangrove areas),
- iii. to carefully study the turtle populations to see if some catch could be allowed during certain times of the year (for example during the month of Ramadhan)

#### 4.3.2. Parc Marine du Mohéli, PMM

Mr Anasse opened the meeting, which took place on 14th of June, 2010, and introduced everyone as well as the project objectives. The park management suggested that the communities of Nioumachoua and Ndrondroni should be the specific DLIST villages to targeted during the planning Nioumachoua was phase. suggested because there is a strong village association, as well as a strong fishers association. The



Figure 16: DLIST team meeting with the people in the Mohéli Marine Park office in Nioumachoua

community is quite involved in the Marine Park activities since this is where the head quarter is located. In Ndrondroni on the other hand, it has been difficult for the Marine Park to have a lasting influence. This is mainly because the population consists of immigrants from the island of Anjouan and they often move back and forth between the islands. The immigrants lack interest in issues related to the preservation of the resources in this area as they don't consider the area to be their home.

Mr Beaudard gave a presentation about the history and set-up of the Marine Park and their more recent activities. He briefly explained that the environmental law in Comoros is generally very good; however enforcement is a problem, mainly caused by lack of government funds. The "Parc Marine du Mohéli" (PMM) was initiated in 1995 with funding and support from UNDP, IUCN, and the Government of Comoros. It was officially gazetted as a Marine Park in 2001. The protected area covers 40,000 ha and includes all marine environments to a depth of 100 m on the southern side of the island, from north of Itsamia in the east, close to Miringoni in the west.

During 2001-2004, the park had access to large funding and a system was put in place where each village should have its own committee and so called "eco-guards" to work with the park management for monitoring and surveillance. There were a total of 12 coast guards and they had policing rights, access to speed boats, fuel etc. Many villages were given assistance such as a new boat for the fishers association, bungalows were built in the village for the village association to be able to run a small tourism operation and create revenue. Today, however only 3-4 of the associations work well and the others have died out because of lack of funding. In 2008 the Marine Park were given a grant from IOC (Indian Ocean Commission) and ReCoMap to revive the park activities and update the management plan. The ReCoMap funding only covers the first year of implementation of the new management plan for the park and they wish they could also get some financial support from the Government of

Comoros to ensure they can achieve the objectives. The Marine Park also sees the need to expand their activities to include more villages and protect more forest areas, as well as turtle nesting sites.

#### 4.3.3. Association pour le Développement Socio-économique d'Itsamia (ADSEI)

In the morning of the 16<sup>th</sup> of June, the DLIST team went to the village of Itsamia in the eastern part of Mohéli to learn more about the turtle conservation initiative that exists since many years in this village. Mr Anfane, the coordinator of the Association pour le Développement Socio- Economique d'Itsamia (ADSEI) project explained that the project was initiated in 1991 and has received funding from the Embassy of the Netherlands, UNDP, the Nairobi Convention (WIO -LaB), and the Australian Embassy. The turtle protection project is very important for Itsamia as it brings income to the community and everyone from this village really cares for the turtles that co-exist in harmony in this unique area. In Itsamia there are 5 beaches where green turtles nest and the area has been identified as the most important nesting area in the entire Western Indian Ocean (see Figure



Figure 17: Tracks in the sand from nesting green turtles

17). Each year the village arranges a "turtle day" on the 28<sup>th</sup> of May when they invite people from all over Comoros to come and learn more about the project. But during the year they also try to assist other villages to set up similar projects by sharing ideas and experiences. The income is mainly generated from tourists that come to visit the area to see the turtles nest and it is spent on costs for the ongoing turtle conservation and other village projects.

# 4.3.4. Summary of weaknesses and issues

The input from the above listed institutions and key informers have been summarised to the below list of weaknesses and issues.

#### Weaknesses and issues:

- More than 50% of the people on Mohéli live outside the borders of the MPA, where there is no protection of resources.

- There is a high rate of immigration to Mohéli (particularly from the near-by island of Anjouan), and when people come to a place to live temporarily they tend to be less interested in conservation of resources and in preserving the environment as they don't see the place as their long term home;
- There is a lack of information about the existing fish stocks around Mohéli, which makes it difficult to set appropriate quotas for fishing;
- For some reason there are no prawns in Comoros. There are lobsters and crabs, but even in the biggest mangrove areas, there are no prawns. More research about this is needed;
- There is a lack of detailed knowledge about the turtle populations around Mohéli. If more the managers had more knowledge it could maybe be possible to allow a certain level of catching during special times (such as Ramadan) to reduce illegal and uncontrolled poaching;
- There is a lack of funds for overall law enforcement;
- There is a lack of funds for MPA management. The MPA would like to expand their community activities to other areas/communities on the island of Mohéli.

#### 4.3.5. Summary of opportunities and input to the vision

The input from the above listed institutions and key informers have been summarised to the below list of opportunities and input for the future vision for the fishing community for Mohéli.

#### **Opportunities:**

- 1. The communities around Mohéli are well organised with village associations focusing on environmental protection all over Mohéli;
- 2. Nioumachoua and some of the other villages inside the MPA borders are quite active in MPA activities and show an interest in conservation activities;
- 3. There are generally god laws in Comoros for environmental protection, but the law enforcement is a problem;
- 4. Community conservation initiatives like the ADSEI could be spread to more communities<sup>5</sup>;
- 5. The "Turtle Day" could be promoted with activities all over the island and beyond.

# Vision for the future:

- The MPA should have more funds for operating community conservation initiatives in more communities;
- The relevant Government Departments should have more funding available for law enforcement activities, both in terms of off shore illegal foreign fishing vessels, as well as to support the MPA and reduce turtle poaching and other destructive and illegal activities (also sand mining on the beaches is a problem);

<sup>&</sup>lt;sup>5</sup> It should be noted that not all communities on Mohéli have a positive attitude towards the ADSEI turtle conservation project. There seems to be some issues of jealousy between Itsamia and other nearby villages.

- The fishing associations should be more equipped and better capacitated with management training, better boats, navigation equipment and functioning cold storage facilities;
- The Government Departments should have more funds and support for research on stock assessments and other needed research in the marine and coastal environment.

# 5. Strategy and Implementation Plan

## **5.1.** Developing a Strategy

The development of this document followed the established LED Plan methodology, which puts the interest of the community at centre stage. It typically has three stages (as seen in Figure 18):

Stage One: Through socio-economic surveys, public meetings, engagement with different stakeholders and community-based associations, ad hoc discussions with the local inhabitants and assorted parties, and visioning exercises a list of issues were generated (see section 4.2). They are explained in further detail throughout the document. In most cases, participants came up with suggestions, some of them right on the mark and others far flung and sometimes downright unrealistic (at least in the foreseeable future). Nonetheless all suggestions were treated with respect, considering the community is best acquainted with local circumstances. They define the ground level agenda that must then be carried upstream through the Development Plan.

Stage Two: The issues are studied and, based on the needs and aspirations of the people and their ideas for solutions, as well as key informers' and experts' input, main areas of intervention are identified that are defined to address the different issues. Sometimes an area of intervention addresses several issues, while one issue can also be addressed by different areas of intervention. The interventions typically would address the question of 'What needs to happen to achieve a satisfactory solution to this/these issues(s)?', or 'What mechanism(s) can be put in place to make things better in the fastest and most economic manner?' There are eleven proposed interventions (see section 4.3).

Stage Three: Once the proposed interventions have been identified, the Strategy and Implementation Plan (SIP) can be elaborated. A series of steps are presented for each area of intervention, together with ballpark budgeting and an indication of drivers that should be engaged in the implementation of the Development Plan (see section 4.4). Areas of intervention are also linked to a 1-year and 5-year timeframe. The SIP needs to be simple, and put in simple language so that the different components, and how they relate to other components, are easily understood by all.

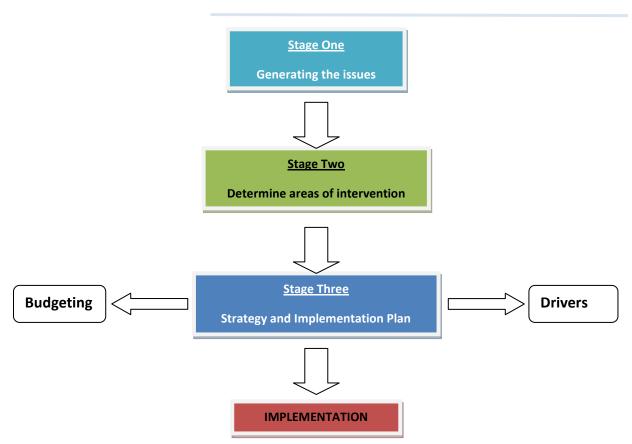


Figure 18: Stages in the development of the plan

#### 5.2. List of issues

Information on weaknesses/issues and opportunities were collected during the individual interviews as well as in group discussions with different stakeholders. Sixteen main issues were identified and are listed below:

- 1. Local communities are often not involved in projects and development plans;
- 2. People don't respect the rules of the village and the MPA;
- 3. The villages have poor infrastructure such as bad road, lack of toilets, insufficient waste collection/management, lack of market area, and inadequate hospital services;
- 4. Lack of access to electricity;
- 5. Lack of education, environmental awareness and skill training;
- 6. Lack of capacity within the community associations and the village leaders;
- 7. Lack of access to modern fishing gear, including bigger boats, cold storage facilities, GPS, marine radios etc.
- 8. Relatively high rate of immigration to Mohéli from Anjouan, which needs to be managed better;
- 9. Poor communication within the communities and between communities and the Government;
- 10. High unemployment rate, particularly among the young generation;
- 11. Lack of funds for development and business development;

- 12. Environmental problems such as beach erosion, solid waste pollution on the beached, mangrove cutting, deforestation, coral reef degradation and poaching;
- 13. Lack of available land and space for community development;
- 14. More than 50% of the population on Mohéli live outside the MPA where there is no conservation of resources;
- 15. Lack of access to information for informed management decisions (more research is needed);
- 16. Lack of funds for law enforcement and MPA management.

# **5.3.** Proposed interventions

Based on the issues raised as indicated above, the following interventions have been suggested as steps to address the issues and to arrive at the future vision. As proposed, the different activities can be addressed in 1 year, and 5 year timeframes. The timeframes are merely an indication of both the urgency and the relative ease by which these can be implemented.

# 1. A Multi Purpose Resource Centre (MPRC)

A MPRC for each of the three communities would bring positive development. The MPRC can include a market area, a youth centre, a space for community handicraft development and training activities, a small shop for community products, an environmental information centre, a stone crushing machine, and a solar drying area for fruit and other natural products etc. The MPRC should include toilets, renewable energy sources and rainwater harvesting facilities.

# 2. <u>Infrastructure Development</u>

This is urgently needed in all villages. The needs include improved road, upgraded drainage, the set-up of a waste management project and construction of public toilets for the community.

#### 3. School upgrading

To encourage the youth not to leave school before finalising their primary education or starting secondary, it is important that the schools are upgraded and expanded to accommodate the growing numbers of children.

#### 4. <u>Instalment of renewable energy on Mohéli</u>

Combinations of solar, wind, and bio gas energy can be explored, along with the waterfall that has been pointed out as a potential energy source by the community.

#### 5. A Fishers support initiative

This fisheries sector is the main income bringing activity. There are however many ways for how the income could be improved which include upgrading of landing sites, instalment of solar freezers, provision of larger boats and training for the fishers associations on how to use them, the instalment of FADs around Mohéli, and hygienic fish processing and selling area for marine products.

# 6. A community farming project

To encourage more and sustainable farming activities for improved food and income security, initially it is proposed that fruit farming, processing (drying) and packaging is encouraged.

# 7. Adult education and training

Support is needed to the community groups in terms of adult education and training in the following fields; business management, proposal preparation, practical skills, and leadership skills.

#### 8. Environmental conservation outreach support

Outreach support to ADSEI and the Mohéli Marine Park is needed so they can expand the community outreach and education activities to more communities all over the island<sup>6</sup>, including school trips to visit the MPA and the turtle conservation initiative.

#### 9. Access to land and improved land-use planning

Access to land and improved land-use planning is needed to improve development and business opportunities for the community members.

#### 10. Eco/community tourism development

Development and support to Eco- and Community tourism would increase sustainable tourism to the area, which would increase the revenue spread to the local communities;

#### 11. A marine research initiative

<sup>&</sup>lt;sup>6</sup> Particularly targeting the immigrants from Anjouan and other islands.

A marine research initiative is needed, which encourages local and international researchers and experts to come to Mohéli to conduct stock assessments etc for more informed management decisions.

# 12. Funding to the MPA for improved law enforcement

The MPA management needs additional and long term sustainable funding for improved law enforcement and monitoring within the MPA. This needs to be explored with Government representatives, regional NGOs and donors.

# **5.4.** Implementation Plans

A plan for implementation of the recommended activities along with a preliminary budget is outlined in Table 3 below. The draft plan and associated budget will have to be refined and more detailed business plans developed for each intervention, before implementation. To develop business plans, more consultation with stakeholders, government ministries, the private sector and donors will be needed.

**Table 3: The implementation plan** 

Key:

1 year 5 years

# **Budget Notes:**

Cost estimates are provided in US dollars. The budget is indicative only, and can only be refined as part of implementation, in consultations with government ministries, the interested private sector, donors and community stakeholders. The symbols below provide an indication of parties that may be involved in specific line items, either in providing funding or services.

No costs indicates services that possibly can be provided by government entities or the cost is not a large amount

*Unknown* indicates items that can possibly be funded by donors or depends on the type of project, size of groups etc.

+ indicates possible involvement of consultants or private sector

| Areas of intervention                               | Issues<br>targeted | Steps  | Relevant parties   | Cost (in US<br>dollars)  |
|---|--------------------|--|--|--|
| 1. A Multi-<br>Purpose<br>Resource<br>Centre (MPRC) | 1,2,4              | <ol> <li>Involve relevant Authorities to identify the needs and establish available budget</li> <li>Call for a community meeting to identify exact needs of what should be included in the MPRC and where it would be best to construct it</li> <li>Develop a detailed proposal including construction budgets</li> <li>Appoint an architect to conceptualise and design the MPRC</li> <li>Procure a suitable construction company (to undertake construction in collaboration with community workers)</li> <li>Construct the MPRC and start implementing</li> </ol> | The Ministry of Agriculture, Fisheries and the Environment, Ministry of Rural Development, Ministry of Energy, Ministry of Industry and Handicraft, Ministry of Work and Employment, Ministry of National Education and Technical and Professional Training, PMM, Community groups | 1. No costs 2. 3,000 3. Unknown <sup>+</sup> 4. Unknown <sup>+</sup> 5. No costs 6. Unknown <sup>+</sup> |

| 2.<br>Infrastructure<br>upgrade<br>project | 3       | <ol> <li>Involve relevant Authorities and community groups to identify the needs and establish available budget</li> <li>Upgrade the drainage system</li> <li>Upgrade the road</li> <li>Construct toilets in the community</li> <li>Introduce and train the community on how to use a new waste management system</li> </ol>  | The Ministry of Agriculture, Fisheries and the Environment, Ministry of Transport and Tourism, Community groups | 1. No costs 2. Unknown <sup>+</sup> 3. Unknown <sup>+</sup> 4. Unknown <sup>+</sup> 5. 5,000 <sup>+</sup>       |
|--|---------|---|---|---|
| 3. School upgrading                        | 5,10    | <ol> <li>Assess the number of children in the targeted areas</li> <li>Investigate the current capacity of the schools</li> <li>Involve the Ministry of Education to plan for how to upgrade the school to accommodate the community need</li> <li>Apply for funding for the needed upgrading</li> <li>Construct new class rooms and employ additional teachers</li> </ol>   | Ministry of National Education<br>and Technical and Professional<br>Training, Community groups,<br>donors       | <ol> <li>No costs</li> <li>No costs</li> <li>No costs</li> <li>No costs</li> <li>Unknown<sup>+</sup></li> </ol> |
| 4. Renewable energy instalment             | 4       | <ol> <li>Find a suitable consultant to survey which technique would be most suitable for the area (wind, solar, gas or other)</li> <li>Develop detailed plans and a proposal</li> <li>Apply for funding (CO2 emission offset funds could be explored)</li> <li>Initiate construction</li> </ol>   | Ministry of Rural Development, Ministry of Energy, Community groups, donors                                     | 1. Unknown <sup>†</sup> 2. Unknown <sup>7</sup> 3. No costs 4. Unknown <sup>†</sup>                             |
| 5. A fishers support initiative            | 2,3,5,7 | <ol> <li>Set up group meetings with the fishers groups and representatives from the Ministry of Agriculture, Fisheries and the Environment to discuss the detailed needs</li> <li>Find a consultant to develop a complete plan and proposal</li> <li>Apply for funding for the initiative</li> <li>Start construction and procurement of boats, GPS equipment etc.</li> <li>Initiate training with members of the fishers associations</li> </ol> | Ministry of Agriculture, Fisheries and the Environment, Fishers Associations, donors                            | 1. No costs 2. Unknown <sup>+</sup> 3. No costs 4. Unknown <sup>+</sup> 5. 10,000                               |

<sup>&</sup>lt;sup>7</sup> Jason Morenikeji from The Clean Energy Company in Mozambique (<u>www.tcei.info</u> +258 8283 64854) could be a suitable consultant for this assignment

| 6. Community farming project                   | 5,10,11                    | <ol> <li>Arrange community association meetings to determine interest for this initiative and set up specific groups of people that will be involved</li> <li>Select appropriate land for the community farming project</li> <li>Find a consultant to investigate what fruits/crops will work best in the area and which products that will have a reliable market</li> <li>Start developing the land and planting trees (if needed)</li> <li>Start doing training on how to process the products</li> </ol> | Ministry of Rural Development, Ministry of Agriculture, Fishing and the Environment, Community associations  | 1. No costs 2. No costs 3. Unknown <sup>†</sup> 4. Unknown <sup>†</sup> 5. Unknown <sup>†</sup>     |
|--|----------------------------|--|--|---|
| 7. Adult education and training                | 1,5,6,9,<br>11,15          | <ol> <li>Set up community meetings to identify what training needs exist, in collaboration with representatives from a wide range on Ministries as appropriate</li> <li>Develop training plans</li> <li>Find funding for undertaking training</li> <li>Start initiating the training activities</li> </ol>   | The Ministry of Agriculture, Fisheries and the Environment, Ministry of Rural Development, Ministry of Energy, Ministry of Industry and Handicraft, Ministry of Work and Employment, Ministry of National Education and Technical and Professional Training, PMM, Community groups | 1. No costs 2. Unknown <sup>+</sup> 3. No costs 4. Unknown <sup>+</sup>                             |
| 8. Outreach<br>support to the<br>MPA and ADSEI | 1,2,3,8,<br>9,12,14,<br>15 | <ol> <li>Ministry of Agriculture, Fisheries and the Environment to arrange a meeting with PMM and ADSEI to discuss their ideas and costs related to an expansion of the outreach activities</li> <li>Involve Ministry of Education to activate a school visits programme to both PMM and ADSEI</li> <li>Prepare a proposal for the activities and budgets</li> <li>Search for funding to cover the costs</li> <li>Start implement the outreach activities</li> </ol>   | Ministry of Agriculture, Fisheries<br>and the Environment, Ministry of<br>National Education and Technical<br>and Professional Training, PMM,<br>ADSEI, Donors   | <ol> <li>No costs</li> <li>No costs</li> <li>Unknown*</li> <li>No costs</li> <li>Unknown</li> </ol> |

| 9. Access to   | 1,2,6,9,13 | 1. Discuss with relevant ministries to secure access to land for | The Ministry of Agriculture,    | 1. No costs             |
|----------------|------------|--|---------------------------------|-------------------------|
| land and       |            | community development projects (the MPRC, the agriculture        | Fisheries and the Environment,  | 2. Unknown⁺             |
| improved land- |            | initiative etc)  | Ministry of Rural Development,  |                         |
| use planning   |            | 2. Find a consultant/expert to support a land-use planning       | Community groups                |                         |
|                |            | initiative for the target areas                                  |                                 |                         |
| 10. Eco-/      | 10,11      | Set up community groups focusing on the development of           | Ministry of Transportation and  | 1. No costs             |
| community      |            | tourism in each area   | Tourism, Community associations | 2. No costs             |
| tourism        |            | 2. Arrange meetings with the Ministry of Transportation and      |                                 | 3. Unknown⁺             |
| development    |            | Tourism to discuss the possibilities                             |                                 | 4. Unknown⁺             |
|                |            | 3. Encourage community involvement such as the set up of sm      | all                             | 5. Unknown⁺             |
|                |            | restaurants, cafés etc.  |                                 | 6. Unknown⁺             |
|                |            | 4. Create areas where tourists can enjoy local culture and       |                                 |                         |
|                |            | heritage (could be in conjunction with the MPRC)                 |                                 |                         |
|                |            | 5. Develop tours to the Marine Park where local community        |                                 |                         |
|                |            | members can be involved as guides and provide community          |                                 |                         |
|                |            | training on issues related to tourism                            |                                 |                         |
|                |            | 6. Produce a brochure and set up a website about the tourism     |                                 |                         |
|                |            | initiative in these villages to market the area                  |                                 |                         |
| 11. Marine     | 15         | 1. The different marine departments and sections within the      | The Ministry of Agriculture,    | 1. No costs             |
| esearch        |            | Ministry of Agriculture, Fishing and the Environment to          | Fisheries and the Environment,  | 2. No costs             |
| nitiative      |            | develop a priority document for needed research                  | PMM, ADSEI,                     | 3. Unknown⁺             |
|                |            | 2. This strategy to be communicated and discussed with the       | Other environmental NGOs in     |                         |
|                |            | PMM and other stakeholders                                       | Comoros                         |                         |
|                |            | 3. The different partners to collaborate to try to find external |                                 |                         |
|                |            | researchers and funding, following the established priorities    |                                 |                         |
| 12. Funding to | 2,16       | 1. The PMM to meet with representatives at the Ministry of       | The Ministry of Agriculture,    | 1. No costs             |
| the MPA        |            | Agriculture, Fisheries and the Environment to discuss the        | Fisheries and the Environment,  | 2. Unknown <sup>†</sup> |

|               |          |    | situation and the needs                                     | PMM                               | 3. No costs |
|---------------|----------|----|---|-----------------------------------|-------------|
|               |          | 2. | Develop a plan/proposal for what activities are needed and  |                                   | 4. Unknown  |
|               |          |    | what costs are involved                                     |                                   |             |
|               |          | 3. | Search for funding to cover these costs                     |                                   |             |
|               |          | 4. | Start implementation of enforcement activities etc.         |                                   |             |
| 13. Improved  | 1,8,9,15 | 1. | Set up a meeting with representatives from the community    | The Ministry of Agriculture,      | 1. No costs |
| communication |          |    | associations and relevant Ministries to discuss the issue   | Fisheries and the Environment,    | 2. No costs |
| between       |          | 2. | The community groups from the target communities should     | Ministry of Rural Development,    | 3. No costs |
| Government    |          |    | select a few representatives, to create a special committee | Ministry of Energy, Ministry of   | 4. No costs |
| and           |          | 3. | This committee could attend the regular CIDD meetings and   | Industry and Handicraft, Ministry |             |
| community     |          |    | any other community/development meeting for the area        | of Work and Employment,           |             |
|               |          | 4. | Regular meetings can also be arranged between this          | Ministry of National Education    |             |
|               |          |    | committee and other relevant ministries to improve          | and Technical and Professional    |             |
|               |          |    | information sharing   | Training, Community groups        |             |

### **5.Guidelines for Local Economic Development**

The following guidelines aim to foster cooperation between the different parties (community, private sectors, government, donors, etc.) in boosting local economic development. Worldwide, LED and development guidelines are scattered through many documents and initiatives. The following documents are examples:

- Tourism and Local Economic Development (see: <a href="http://www.pptpartnership.org">http://www.pptpartnership.org</a>)
- National Responsible Tourism Guidelines for South Africa (see: www.icrt.org)
- Local Economic Development Guidelines (see: <a href="www.owda.org">www.owda.org</a>)

For the Fishing Community in Mohéli the following guidelines are proposed. They can, for instance, be used to assess applications for operating businesses or tourism operations in the area, as well as other developments, and to guide government or donor funding.

### 6.1. Training, human resource development and community engagement:

- a. Any construction work should encourage sourcing a large portion of the workforce from the local communities in the area. It will not be possible to source all staff for all skill levels from this area, but, as much as possible unskilled labour should from this community;
- b. Monitoring systems should be included in applications for developments and operating licences. The Steering Committee members for this plan, could possibly also be responsible for monitoring that point a. is followed;
- c. Any tourism establishments should be encouraged to assist aspiring community members to gain skills, either by providing scholarships to formal training institutions or through the establishment of in-house training programmes;

#### **6.2.** Promoting local businesses:

- d. Any hotels or tourism establishments should encourage their guests to visit the community and any local product should be marketed at the hotels;
- e. Any hotels/ tour operator or establishment should encourage their guests to visit locally owned cafés, ones such have been established;
- f. Co-operation with other formal sector businesses should be encouraged to maximise benefits for local community enterprises for example, the proposed fruit farming and drying project will only work if there is a market for the products;

#### 6.3. Social responsibility:

g. Any private businesses can also contribute to community development through Corporate Social Responsibility (CSR) programmes. Contributors to CSR may make

propositions on how such funding may be spend locally, for instance in ways that may benefit both the developer and the local community; such funding may also be spent on the actions identified in the Local Economic Development (LED) Plan, such as community training activities or the environmental outreach activities by PMM and ADSEI;

### 6.4. Government involvement and contributions:

h. There are numerous ways in which government can contribute to the community development. Specially allocated target funding can be applied to priorities in the Development Plan. However, government ministries can also mainstream many priorities in the Development Plan into their annual budgets or normal activities aimed at preserving the environment, stimulating economic growth, democratising the economy, and so forth. Ministries are encouraged to study and consider priorities listed in the Community Development Plan.

Community Development Planning is an exciting and positive approach that will require constant innovation through time, as well as to fit circumstances that may not be foreseen from the outset. Therefore the above guidelines should be considered a start that can be 'test driven'. All parties interested in contribution to this development plan should be encouraged to propose new guidelines that may fit their particular circumstances.

# 6.5. How to use the Development Plan and next steps

a. <u>Placing the Plan in an appropriate legal framework and ensure buy-in from relevant authorities:</u>

This Development Plan is seen mainly as an advisory document that can guide activities in the coastal areas of Mohéli. The plan must be presented to all relevant Government Ministries and Departments, both on national and island level and other relevant stakeholders as soon as possible. All authorities should be encouraged to adapt the information in this plan as a guide to the future development activities.

#### b. <u>Presentation to the community and other stakeholders:</u>

A Development Plan can only be effective if it is widely known. It should first and foremost be made available to the local community, with a summary in French, and there should be no delay in its dissemination. The planning committee members from the three target communities should all have copies of the plan, along with relevant authorises as mentioned above. Possible partners (Mohéli Marine Park, and ADSEI for example) and donor organisation should also receive copies of the final plan.

c. A Steering Committee should be selected to implement the Development Plan:

The Steering Committee should steer the implementation of the Plan together with the Ministry of Agriculture, Fisheries and the Environment and the CIDD. A Steering Committee should also have representation of the Fishers Association, the Women's Association and other community groups and possibly private sector.

# d. <u>Support for implementation</u>:

Technical staff should be allocated to provide support to the implementation of the plan. Private sector support should be welcomed for certain aspects of the plan. A consultant may for example assist in the drawing up of the Logical Framework Analysis (LFA). During the drawing up of the LFA every action listed in the report and Strategy and Implementation Plan should be discussed, understood, and incorporated in the LFA table. Consultants can also be involved to develop complete business plans for some of the proposed interventions.

#### e. Monitoring and Evaluation (M&E):

Monitoring and Evaluation (M&E) is an essential component of implementation and has to be done by the appointed Steering Committee. The framework for the monitoring and implementation should be drawn-up separately by a consultant, in close collaboration with the Steering Committee members and the communities.

# Appendix I: Interview questions for the fishers in Mohéli

# A) PERSONAL DETAILS

| 1.<br>2.<br>3. | What is your name? Quel est votre nom?  |
|----------------|---|
| 4.<br>5.       | How long have you lived here? <b>Vous vivez ici depuis quand?</b>   |
| 6.             | How many people depend on you? Combien de personnes dépendent de vous pour vivre ?  |
| 7.             | Is the income you get from your work sufficient? <b>Ce que vous gagnez de votre travail est-il suffisant?</b> Yes [ ] No [ ] If, No. Why? <b>Si, Non, Pourquoi?</b>   |
| 8.             | What alternative activities do you have? Est-ce que vous avez d'autres activités alternatives?  |
| 9.             | How many times per week/month do you and your family eats fish/chicken/meat?  Combien de fois par semaine/mois dans votre famille vous mangez de  poissons/poulets/viandes?   |
| B) WE          | AKNESSES & OPPORTUNITIES FOR THE COMMUNITY  |
| 10             | . When it comes to the development of your village, or achieving a better life, what are the weaknesses in the community?  Quand vous sentez le développement dans votre village, ou l'amélioration dans la vie,  |
|                | quelles sont les faiblesses dans vos communautés ?  |
|                | . What are the opportunities in your community? Quels sont les atouts que vous disposez ?  . Are there any NGOs/programmes/projects that have been active in your community? Est-ce qu'il y avait des ONGs/Programmes/projets actifs dans vos communautés? Yes Oui [ ] No Non [ ] If yes, who are they? Si Oui, Qui sont ils?  And what have they done/achieved? Qu'est ils ont accompli? |
| 13             | . How do you want your community to look after 15 years? A vision for the future Comment voulez vous que votre communauté devienne t-elle dans 15 ans, Votre vision pour le futur?  |
| C) CON         | SERVATION OF RESOURCES  |
| 14             | . Do you think the Marine Park helps? Pensez-vous que le parc marin vous aide? Yes Oui [ ]  No Non [ ]  In what way? De quelle manière ?  |
| 15             | Should there be more conservation areas or should the current one be opened to fishing?  Est-ce qu'il faudrait encore plus d'aires protégées ou d'ouvrir l'existant à la pèche?   |
| 16             | Which areas do you think tourists like to visit and how many tourists visit this area per year?  Vous pensez, les touristes préfèrent visiter quelle zone, et combine sont-ils chaque année?  Where do you think the fish breed? Vous pensez, où est-ce que les poisons se reproduisent?  |
| 17             | Would you like to know more about the ecology of the systems (environmental education)?  Est-ce vous voudriez savoir un peu plus sur l'écologie et les systèmes (éducation relative à l'environnement)?  Yes Oui [ ] No Non [ ]   |

| 18     | Do you ever see dolphins or whales? Avez vous déjà vu les dauphins ou les baleines?  Yes Oui [ ] No Non [ ]   |
|--------|---|
|        | Do people sometimes kill dolphins/whales? <b>Est-ce que les gens tuent quelques fois les</b>  |
|        | dauphins/baleines? Yes Oui [ ] No Non [ ] I don't now Je ne sais pas [ ]  |
| 19     | . Do you ever see sea turtles? <b>Avez vous déjà vu de tortues de mer?</b>  |
|        | Yes <b>Oui</b> [ ] No <b>Non</b> [ ] Do people still harvest turtles? <b>Est-ce que les gens attrapent toujours les tortues de mer?</b>   |
|        | Yes <b>Oui</b> [ ] No <b>Non</b> [ ] I don't now <b>Je ne sais pas</b> [ ]  |
|        | res out [ ] No Noti [ ] I don't now be the sais pas [ ]   |
| D) THR | EATS TO THE ENVIRONMENT   |
| 20     | Are there threats to the environment? Est-ce qu'il y a des menaces pour l'environnement?  Yes [ ] No [ ]  |
|        | If yes, which are they? Si Oui, lesquelles?   |
| 21     | . Can you see "changes" in the environment? Pouvez-vous voir les « changements » dans l'environnement? Yes Oui [ ] No Non [ ]   |
|        | Which changes can you see? Quels changements vous pouvez voir?  |
| 22     | . How do these changed affect you? <b>Comment ces changements vous affectent –ils?</b> How are these threats/changes caused? <b>D'où viennent ces menaces/changements?</b>  |
| E) Con | IMUNICATION AND GOVERNANCE  |
| 23     | . How does information spread in your community? Comment les informations sont disséminées dans vos communautés?  |
| 2/     | . Who brings the news? <b>Qui apportent les nouvelles chez vous?</b>  |
|        | Does anyone tell you what is going on in the sea and what is happening to the resources?  |
|        | Est-ce qu'il y quelqu'un qui explique à vous le fonctionnement de la mer et ce qui se passe sur les ressources ?  |
| 26     | If you want to complain or report a problem, where do you go or who do you contact?  Si vous voulez réclamer ou rapporter un problème, vous aller où ou contacter qui? Do you   |
|        | communicate with marine resource managers, government officials and park managers   |
|        | regarding the state of the marine resources or other issues (what?)? <b>Est-ce que vous</b>   |
|        | communiquez avec les gestionnaires des ressources marines, les responsables   |
|        | gouvernementaux et les gestionnaires du parc marin concernant l'état des ressources   |
|        | marines ou autres choses ?  |
|        |   |
|        | Yes Oui [ ] No Non [ ]  |
| 27     | . Do you have a say in how resources are managed? How? Est-ce que vous avez à dire sur comment les ressources sont gérées? Comment ?  |
| FINAL  | QUESTION (main questionnaire)   |
| 28     | s. Is there anything else you want to add, or think the committee should take into account when they make a plan for the village? S'il y a encore quelque chose d'autre que vous voulez rajouter, ou le comité doit tenir en compte pour le plan de Développement pour le |

# F) THE LOCATION

village?

29. Where do you fish? Où vous faite régulièrement la pêche?

30. Which places would you prefer to fish if you could choose freely? Dans quelle zone vous préfériez faire la pêche si vous pouvez librement choisir? 31. What types of ecosystems/species are available in the location you fish? Quels types d'écosystèmes/espèces existent-ils dans la zone où vous pêchez ? 32. What are the problems you encounter in the area where you fish? Quels types de problèmes vous rencontrez dans la zone où vous pêchez ? 33. Are there other fishers coming to fish around here? Est-ce qu'il y a d'autres pêcheurs viennent aussi travailler autour de vous ? Yes Oui [ ] No Non [ ] a) If yes, Who are they? Si Oui, qui sont-ils? ..... b) How many are there? Combien sont-ils? ..... c) Where are they from? **D'où viennent –ils?** ..... 34. How many other boats are doing the same type of fishing in the same area? Combien de bateau vient faire le même type de pêche dans l'endroit où vous travaillez ? 35. Are there any conflicts? Est-ce qu'il y a des conflits entre eux? Yes Oui [ ] No Non If yes, which? Si Oui, lequel?..... **G) METHOD AND GEAR** 36. What kind of boat(s) do you use? Quel type de bateau vous utilisez? 37. Do you own the boat(s)? Est-ce que vous êtes le propriétaire? Yes Oui [ ] No Non [ ] How many Boats do you own? Combien de bateaux vous avez? ..... 38. Do you work alone or in a group? Vous travaillez seul ou en groupe? [] Alone [] in group If you work in a group, how many people are there in your group? Si vous travaillez en groupe, combine de personne est dans votre groupe ? ...... 39. What kind of gear and method do you use? Quel type de trappe ou de méthode vous utilisez ? ...... 40. Is there a fishers association, cooperative or committee in this area? Est-ce qu'il y a des associations des pêcheurs, ou de sorte de coopératives ou comité dans cette zone ? Yes Oui [ ] No **Non** [ ] 41. If yes, do you or any of the people in your group belong to this? Si Oui, est-ce que vous ou quelqu'un de votre groupe fait partie de cela ? Yes Oui [ ] No Non [ ] 42. What can help you to get more value for your fish? Comment augmenter le gain que vous tirez de vos poissons? H) CATCH ANALYSIS 43. What type of organisms do you fish? Quel type de poisson vous pêchez? Do you discard any organisms that you don't use? Est-ce que vous rejetez les espèces que vous ne voulez pas ? Yes Oui [ ] No **Non** [ ] 44. Do you sell the fish? **Vendez vous de poissons ?** Yes **Oui** [ ] No **Non** [ ] If Yes, where? Si Oui, Où?..... 45. How many kg do you catch and how many kg do you sell per day? Combien de kg vous attrapez et combien de kg vendez vous par jour? 46. How much do you sell your fish for? **Combien vous les vendez?** 47. How do you keep/store your fish? Comment vous conservez les poissons?

#### I) FISHING STOCK AND LIVELIHOOD

48. How do you compare the amount of fish you catch today with 5 years ago? **Comment comparez vous les poissons que vous attrapez vous-même maintenant avec ce que vous avez gagné, il y a 5 ans ?** 

- 49. And 10 years ago? Et, il y a 10 ans?
- 50. What is the reason for the change? Quelle est la raison du changement?
- 51. What is the most common fish in this area? Quel est le type de poissons les plus courants de cette zone ?
- 52. How do you feel about conservation efforts in this area? **Comment vous appréciez l'effots en conservation dans cette zone**?
- 53. How has conservation efforts affected your livelihood? Comment les efforts en conservations affectent-ils votre mode de vie ?
  Do you think management of the marine resources is necessary? Pensez-vous que la gestion des ressources marines est-t-elle nécessaire ? Yes Oui [ ] No Non [ ]
  Why? Pourquoi ?
- 54. How can management work? **Comment une gestion peut-t-elle marcher?**
- 55. What alternative activities could you do to create livelihood? **Quelles activités alternatives** pouvez-vous créer ?
- 56. What do you do when you cannot fish (due to bad weather for instance)? **Qu'est ce que vous** faite quand vous pouvez pas faire la pêche, par un mauvais temps par exemple ?

# Appendix II: Interview questions for Key Informers, Mohéli

# DLIST SITE VISIT IN MOHÉLI, COMOROS KEY INFORMERS QUESTIONS

| A | PE | RS | 10 | NAL | DE. | TAII | LS |
|---|----|----|----|-----|-----|------|----|
|---|----|----|----|-----|-----|------|----|

|      | 1.       | What is your name?   |
|------|----------|--|
|      | 2.       | Which organisation/authority do you work for?  |
|      | 3.       | Phone number and email address?  |
| в) \ | WEA      | KNESSES & OPPORTUNITIES FOR THE COMMUNITY  |
|      | 4.       | When it comes to the development of Mohéli, or achieving a better life for the people working/living there – what are the weaknesses in this area?   |
|      | 5.       | What are the opportunities for good development in this area?  |
|      | 6.<br>7. | Have your organisation/authority been active in Mohéli or the Marine Park? In what way? Are there any other NGOs/programmes/projects that have been active in Mohéli? Yes [ ] No [ ] If yes, who are they? |
|      |          | ,  |
|      | _        | And what have they done/achieved?  |
|      | 8.       | How do you/your organisation want the communities on the island to look after 15 years? A vision for the future  |
| C) ( | Cons     | SERVATION OF RESOURCES   |
|      | 9.       | Do you think the marine park helps? In what way?   |
|      | 10.      | Should the conservation area be expanded or should the current one be opened to fishing and other activities   |
|      | 11.      | Which areas do you think tourists like to visit and how many tourists visit this area per year?  |
| D) . | THRE     | EATS TO THE ENVIRONMENT  |
|      | 12.      | Are there threats to the environment?  If yes, which are they?   |
|      | 13.      | Can you see "changes" in the environment? Which changes can you see?   |
|      | 14.      | How do these changed affect the communities?   |

# E) COMMUNICATION AND GOVERNANCE

- 15. How do you/ your organisation spread information to the communities?
- 16. If people want to complain or report a problem, how can they reach you and your organisation?

# **FINAL QUESTION**

17. Is there anything else you want to add, or think the committee should take into account when they make a Plan for the development of the area?

