



LOCAL ECONOMIC DEVELOPMENT PLAN

AMBODILETRA, MADAGASCAR

2011



Development Plan

Ambodiletra, Masoala

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”.

Acknowledgements

Many people have contributed to the development of this document. They include the community members in Ambodiletra, particularly the parents association and the people that are actively involved in the marine park activities.

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

National Office for Environment (ONE)

Masoala National Parks

International Knowledge Management (IKM)

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

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Vision for Ambodiletra

The Vision for the Ambodiletra community was developed during a series of community meetings, stakeholder group meetings with community based associations and groups, and through a number of individual interviews with stakeholders in the village. It presents the collective view of the people in Ambodiletra, as to where they want to see their community and themselves one day in the future. The Vision therefore functions as a guiding light on the road into the future, with the Local Economic Development Plan for Ambodiletra serving as the road map:

“The people of Ambodiletra want our village to develop in a sustainable manner so we keep our close links with nature. We want the school to be expanded and we want a village clinic to be developed. Electricity should be installed in the village and the road should be improved as well as a port facility. Ecotourism to the community and the National Park should be developed together with the villagers to increase employment opportunities.”

Vision pour Ambodiletra

La vision pour Ambodiletra a été développée à travers une série de réunions communautaires, réunion des groupes de participants avec les associations villageoises mais également à travers les nombreux entretiens individuels et des groupes des acteurs dans le village. Elle présente le point de vue collectif de la population d’Ambodiletra, dans lequel, comment ils voudront voir leur communauté, un jour dans le futur. La vision sert une lampe qui montre le chemin pour le futur, avec le plan de Développement Economique Local comme feuille de route:

“Nous, la population d’Ambodiletra voudrions un développement soutenu et durable garantissant le lien étroit des habitants avec la nature. Nous voudrions que l’école soit développée, et souhaitons d’avoir un centre médical dans notre village. Nous voudrions également avoir une électricité pour le village, de routes qui nous relient avec les autres localités et une infrastructure portuaire adéquate. Il faudrait que l’écotourisme se développe pour créer plus d’emploi pour les locaux.”

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List of Acronyms

ANGAP	National Association for the Management of Protected Areas
ASCLME	Agulhas and Somali Current Large Marine Ecosystem
BMU	Beach Management Unit
CSR	Corporate Social Responsibility
DLIST	Distance Learning and Information Sharing Tool
GEF	Global Environment Facility
IKM	International Knowledge Management
LED	Local Economic Development
LME	Large Marine Ecosystem
LFA	Logistical Framework Analysis
M&E	Monitoring & Evaluation
MEA	Madagascar Expedition Agency
MPA	Marine Protected Area
NGO	Non-Governmental Organisation
ONE	Office National de l'Environnement (National Environment Office)
SA	Situational Analysis
SIP	Strategy and Implementation Plan
SMME	Small and Medium Enterprises
UBC	University of British Columbia
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
US AID	United States Agency for International Development
WIO	Western Indian Ocean

1. Executive summary

Ambodiletra is a small village at the southern tip of the Masoala peninsula in the north-eastern region of Madagascar. The community in Ambodiletra is isolated and it takes at least one day to travel to Maroantsetra, the biggest town in the region. During the cyclone season it becomes impossible to travel by boat and often for many months at a time. This is one of the richest areas in the country in terms of irreplaceable biodiversity, and the largest remaining lowland rainforest is found here. Many local people live in poverty and few community members are aware of the universal value of the area where they live – in spite of the fact that UNESCO puts a high premium on community involvement in World Heritage Sites. The community of Ambodiletra are more or less self-sustained, growing their own rice, cassava and other vegetables, raising chicken, pigs and zebus. But their main source of protein is from the ocean – through fish and other sea food. Cash income is generally very small and comes mainly from small scale vanilla farming and dried octopus or shark-fin fishing.

Since the beginning of the current political crisis in Madagascar, Marojejy and Masoala National Parks have been particularly subjected to illegal cutting of precious woods, including rose wood. Many local people who are involved say that they would prefer to not participate in the destruction but at least can earn a little money through this activity. The biggest and most acute threat to the environment around the Masoala peninsula is deforestation. The deforestation contributes to the siltation of the sea water, which reduces coral growth in the area. Over the last two decades it has become much harder to walk into the lagoon and gather enough protein to feed your family, as marine resources are declining. People also mention that in the recent years, the cyclones have been very strong and destroyed a lot of the corals in the lagoon, which was demarcated as a Marine Park in 1994. The poor state of the coral reef in and around the lagoon has resulted in a reduction in available fish and this is something that many people in the community are worried about. The community have also noticed a rise in temperature and less rain in the area in recent years. All these factors contribute to an ever increasing pressure on the coastal and marine resources, which are being degraded. There is therefore an urgent need for action to ensure a more sustainable resource use to prevent this ongoing degradation.

The consultants visited this site to get the views of a wide range of community stakeholders 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 to draw up a vision to guide future development of the area.

1.1. Aim of the Local Economic Development Plan

The Local Economic Development Plan for Ambodiletra aims to foster and maintain a higher quality of life in the community and nearby marine areas (the marine park) by unlocking local economic development opportunities; a good plan may typically 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 the community.
- 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 community meetings, community group meetings and visioning exercises held with the parent's association and the ... 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 Masoala National Parks, the National Environment Office (ONE), the University of Toamasina, and tourism operators in the area 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:

“The people of Ambodiletra want our village to develop in a sustainable manner so we keep our close links with nature. We want the school to be expanded and we want a village clinic to be developed. Electricity should be installed in the village and the road should be improved as well as a port facility. Ecotourism to the community and the National Park should be developed together with the villagers to increase employment opportunities.”

- f. There are five sections to the Development Plan. The first section provides an *Introduction* with essential background, the purpose of the plan and a basic description of the area 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. Nine major issues identified through stakeholder consultations

1. The school is getting over-crowded and the space and teachers are not enough;
2. The community is not united and people don't collaborate;
3. It is very far to the nearest hospital;
4. The area is not so productive for agriculture;
5. There is no electricity;
6. The water supply is not always good and the water sometimes makes people sick;
7. The road/track is in poor shape;
8. The marine resources are declining;
9. The community has no market for selling local products for reasonable prices.

1.4. Six major opportunities identified through stakeholder consultations

1. The village school is a great opportunity because the children learn how to read and it will give them a better future;
2. The fish in the sea and the marine resources;
3. Ambodiletra is surrounded by beautiful nature;
4. The community associations (the parents' association, the women's association etc) bring unity to the community;
5. The village is very clean and it is a health environment;
6. The area is very good for eco-tourism and community tourism.

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

The identified issues are targeted by ten 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. Some areas of intervention cover more than one issue, and some issues cut across several areas of intervention.

- 1) Expansion of the school, with more classrooms, one or two more teachers, a teachers house, a small solar power system, and a vegetable garden;
- 2) Set-up of a village clinic with a mid-wife nurse;
- 3) Training of community members in sustainable agriculture practices and community forestry, combined with a small solar-drying hub for food processing (drying of fruits and fish, grinding of grains etc.);
- 4) Installation of a village well and a water filtration system;
- 5) Design and installation of a renewable energy system for the village, to supply enough electricity for some lights and a freezer for the fishers, combined with small solar lanterns (for example D.light¹) for each household;
- 6) Road/track upgrade project to improve transport to the remote areas;

¹ D.light has a range of affordable solar lanterns. For more information, see http://www.dlightdesign.com/products_product_line_global.php

- 7) Set-up of temporary octopus closures, which can lead to increased production and more direct community involvement in the Marine Park, following the Velondriake² model;
- 8) Set-up of a community eco-tourism initiative and a small handicraft market/shop with annual tourist group visits;
- 9) Encourage community committees;
- 10) Set-up a community sea-cucumber farming initiative in collaboration with experts from Blue Ventures³.



Figure 1: The Ambodiletra lighthouse

² <http://www.velondriake.org/>

³ <http://www.velondriake.org/alternative-livelihoods/mariculture.htm>

1. Résumé Exécutoire

Ambodiletra est un petit village situé à la pointe sud de la presqu'île Masoala, dans la région du Nord Est de Madagascar. La communauté d'Ambodiletra est isolée, il faut au moins une journée de voyage pour aller à Maroantsetra, la plus grande ville de la région. Pendant les périodes cycloniques, il est impossible de voyager par bateau, et cela peut durer plusieurs mois dans l'année. C'est pourtant, une des zones les plus riches, en termes de biodiversités irremplaçables, et la plus grande forêt tropicale humide de basse altitude restante s'y trouve. Bon nombre de la population local vivent dans la pauvreté et peu de gens sont conscients de la valeur universelle de l'endroit où ils vivent – même si l'UNESCO a déjà inscrit la zone et ses habitants dans la liste des sites de Patrimoine Mondial. La communauté d'Ambodiletra est un peu autosuffisant, ils plantent eux-mêmes le riz qu'ils consomment, du manioc mais également différents légumes dont ils ont besoin, et un peu de poulets, de porcs et de zébus pour les besoins locaux. Mais leur principale source de protéine vient de l'océan – à travers les poissons et les autres fruits de mer. La source financière est très peu et provient principalement de quelques plantations de vanille, pieuvre séchée, et l'hélerons de requins.

Depuis le début de la crise politique à Madagascar, le Parc National de Marojejy et celui de Masoala ont fait particulièrement objet des coupes illicites des bois précieux, notamment le bois de rose. Plusieurs personnes travaillant dans le secteur affirment de ne vouloir pas directement participer à la destruction de ce patrimoine, mais au moins, ils gagnent un peu d'argent dans cette activité. La déforestation contribue à la dégradation des eaux de mer, ce qui réduit à son tour, la croissance des coraux dans la zone. Depuis les deux dernières décennies, la vie devient de plus en plus difficile, gagner suffisamment de protéine pour nourrir la famille devient in défi, parce que les ressources marines se déclinent. Les gens mentionnent également que depuis les dernières années, les cyclones étaient très violents, détruisant ainsi énormément des coraux dans les lagons, délimités comme un parc marin en 1994. L'état désastreux des récifs coralliens, protecteurs naturels des lagons a causé la perte de poisson, le problème que la majorité de la population redoute le plus. La communauté remarque également la montée de la température et l'insuffisance de pluies depuis les dernières années, dans la zone. Tous ces facteurs contribuent à accentuer la pression dans les zones côtières et les ressources marines déjà en dégradation. Il y a pourtant un besoin urgent d'agir pour assurer l'utilisation durable de ces ressources pour faire face à cette dégradation en marche.

Les consultants ont visité le site pour obtenir les idées de différentes personnes, acteurs dans la vie de la communauté, afin d'identifier les problèmes, les faiblesses et les opportunités pour le développement durable. Les consultants ont également essayé d'obtenir ce que pensent les gens comme solutions à leurs problèmes, à travers tout cela, on dessine la vision pour le futur développement de la zone.

1.1. Objectif du Plan de Développement Economique Local

Le Plan de Développement Economique Local pour Ambodiletra prétend à promouvoir et à maintenir à un niveau élevé la qualité de vie des habitants dans les proximités de la mer (parcs marins) par le déblocage des opportunités du développement économique local ; un bon plan peut amener à un bon planning, construction des infrastructures de services, création de opportunités d'affaire reposant sur les potentialités locales, et la création d'emploi suivant les opportunités de la zone.

1.2. In a nutshell:

- a. Le plan de développement est considéré comme un instrument important pouvant conduire au développement de la région, à l'amélioration de la qualité de vie de la population.
- b. Cela a été transcrit comme étant le résultat des engagements extensifs à la fois, des membres de la communauté locale, des consultants, des autorités administratives et bien d'autres différents acteurs.
- c. L'implication de la communauté a été obtenue à travers les différentes réunions de travail, rencontres avec les différents groupes d'association incluant des exercices sur la vision, accompagné de l'association des parents d'élèves ... ce qui est vu comme un élément crucial pour sauvegarder leurs intérêts et leur prédominance dans le plan et la vision.
- d. Les informateurs clés du Parc National Masoala, de l'Office National pour l'Environnement (ONE), de l'Université de Toamasina, les opérateurs touristiques de la région ont tous contribué à la formulation de ce plan à travers les discussions et réunions de travail.
- e. Le plus important, le plan est la résultante des visions collectives et désormais peut être considéré comme une feuille de route à réaliser.

“ Nous, la population d’Ambodiletra voudrions un développement soutenu et durable garantissant le lien étroit des habitants avec la nature. Nous voudrions que l’école soit développée, et souhaitons d’avoir un centre médical dans notre village. Nous voudrions également avoir une électricité pour le village, de routes qui nous relie avec les autres localités et une infrastructure portuaire adéquate. Il faudrait que l’écotourisme se développe pour créer plus d’emploi pour les locaux.”

- 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. Neuf problèmes majeurs identifiés à travers les entretiens avec les acteurs

- 1) L'école commence à être débordée et les espaces pour les enseignants n'est pas suffisant ;
- 2) La communauté n'est pas très unie et les gens ne collaborent pas suffisamment ;
- 3) La localité est très loin du centre hospitalier le plus proche ;
- 4) La zone n'est pas du tout productive pour l'agriculture ;
- 5) Il n'y a pas d'électricité ;
- 6) L'eau potable n'existe toujours pas ;
- 7) Les routes sont en très mauvais état ;
- 8) Les ressources marines sont en déclin ;
- 9) La communauté n'a pas du *bazar* pour vendre les produits locaux à des prix raisonnables.

1.4. Six opportunités majeures identifiées à travers les entretiens avec les acteurs

- 1) L'école communautaire est une énorme opportunité parce qu'elle enseigne aux enfants, comme lire et écrire, ce qui les réservera un avenir meilleur ;
- 2) Les poissons qui sont dans les mers et les autres ressources marines ;
- 3) Ambodiletra est entouré des natures merveilleuses ;
- 4) Les associations communautaires (association des parents d'élèves, l'association des femmes etc.) amène une forme d'unité dans la communauté ;
- 5) Le village est propre et cela est un bon environnement pour la santé ;
- 6) La zone est excellente pour un écotourisme et tourisme communautaire.

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

Les problèmes identifiés sont ciblés par dix domaines d'intervention, en prenant également en compte la liste des opportunités. Les interventions sont liées à la liste des problèmes conduisant ainsi à la stratégie et au plan de mise en œuvre. Quelques domaines d'intervention ciblent plus qu'un problème, et quelques problèmes sont transversalement ciblés par les interventions.

- 1) Etendre l'école, en mettant en place plus de salles de classe, recruter un ou deux autres instituteurs, maisons pour les instituteurs, un petit système solaire, et jardin potagers ;

- 2) Mettre en place un centre hospitalier villageois avec un service pour mères et enfants ;
- 3) Formation pour les membres de la communauté villageoise sur la pratique de l'agriculture durable, combiné avec un petit système séchage solaire (pour sécher les fruits, les poissons, et les graines ...) ;
- 4) Installation éolienne dans le village ;
- 5) Concevoir et installer un système d'énergie renouvelable dans le village, pour produire suffisamment d'électricité destinée à la fois pour l'éclairage public et les congélateurs des poissons, et éventuellement avec les lanternes solaires pour chaque maison à l'image des D.light.
- 6) Améliorer les routes pour faciliter les transports dans les zones reculées ;
- 7) Mettre en place un parc temporaire des pieuvres, qui augmentera directement la production, avec l'implication de la communauté locale dans les parcs marin, suivant le model de Velondriake ;
- 8) Mettre en place un écotourisme communautaire avec un petit *bazar* des produits de l'artisanat local/un marché ciblant ainsi l'arrivée annuelle des touristes ;
- 9) Encourager les comités communautaires ;
- 10) Mettre en place une initiative locale de production de concombre de mer en collaboration avec les experts de Blue Ventures.

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 still in its five year 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 (www.dlist-asclme.org) 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 conducted for direct, face-to-face interaction with local communities, as well as with government and non-government authorities and organisations. The planning process follows a Local Economic Development (LED) planning approach. Ambodiletra was selected as the DLIST demonstration site for Madagascar.

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 Local Economic Development

Plan with the purpose to build up the economic capacity of a local 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 Local Economic Development (LED) 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 in the community. The LED Plan aims to foster and maintain a higher quality of life by unlocking local economic development opportunities. A good 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 to. 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 Local Economic Development Plan for Ambodiletra embraces local values, and strikes a clear balance between socio-cultural, environmental and economic issues of the area.

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 Ambodiletra, 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 will provide the rational basis for the LED Plan.
- ii. To develop a Local Economic Development (LED) 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. Ambodiletra, Masoala

The Masoala peninsula is one of the richest areas in the country in terms of irreplaceable biodiversity with the largest remaining lowland rainforest. It is also one of the few remaining places in the world where truly pristine primary rainforest still reaches the sea, and hence is contiguous to a coral reef ecosystem (see Figure 1) . The Masoala National Park was declared a World Heritage Site in June 2007. Three marine national parks were demarcated in 1994 on the Peninsula: Tampolo (on the west, bay side), Cap Masoala (at the tip of the Masoala Peninsula where the village of Ambodiletra is located) and Tanjona (on the east), see Map 1. Cap Masoala has significant indigenous knowledge systems and cultural sites, including the holiest point northeast of Madagascar (which is a *de facto* fish refuge). Ambodiletra was selected as the demonstration site for the DLIST project for the closeness to these “biodiversity hotspots”, the high resource dependency among the community members, and because this community already have links to and support from the National Parks Authority and are eager to collaborate on conservation issues⁴.



Figure 2: Coastline in the north-eastern Madagascar

⁴ Following the established demonstration site criteria for the DLIST ASCLME project

The *Cap Masoala Parc Marin* was established in front of the Ambodiletra village. It is part of the larger Parc Masola complex, and contains high biodiversity as well as the most significant cultural site (a holy point known a *vato masigny*) in the north-east of the country. Marine resources have become increasingly depleted over the last fifteen years, and the MPA is



Map 1: Map showing Baie d'Antongil and the Masoala peninsula, with Ambodiletra pointed out at the tip of the peninsula

undoubtedly a significant fish refuge from where both sides of the peninsula can be restocked. The Bay of Antongil is also an important shelter area for whales and dolphins (and previously dugongs). The main town in this region is Maroantsetra, which is considered to be the gateway for visitors to the Masoala Peninsula.

People living in Ambodiletra and in the other coastal villages on the Masoala peninsula are pretty much self sufficient in terms of food production (see Figure 3). It is common to find families that grow everything from their own coffee, sugar, rice, vegetables, fruits and rear chicken and pigs to complement the diet which is normally based on protein from the marine environment. The minor cash income to the families in this area comes mainly from farming of vanilla, coconut or from selling dried or smoked fish or dried shark fins and octopus.



Figure 3: Coconut palms, fruit trees and other small scale farming in the Ambodiletra village

The biggest and most acute threat to the environment around the Masoala peninsula is deforestation. Since the beginning of the current political crisis in Madagascar, Marojejy and Masoala National Parks have been particularly subjected to illegal cutting of precious woods, including rose wood (see Figure 4). Many local people who are involved say that they would prefer to not participate in the destruction but at least can earn a little money through this activity. The deforestation contributes to the siltation of the sea water, which reduces coral growth in the area. The community report that over the last two decades it has become much harder to gather enough protein to feed your family, as marine resources are declining. People also mention that in the recent years, the cyclones have been very strong



Figure 4: Illegal rose wood logs waiting for export

and destroyed a lot of the corals in the lagoon, and the recovery is very slow (see Figure 5). In some areas, overfishing is also a problem, leaving only small fish that have not yet reached reproductive age on the reefs. The heavy pressure on the resources and the poor state of the coral reef in and around the lagoon has resulted in a reduction in available fish and seafood, which is a major concern to many community members. The community have also noticed a rise in temperature and less rain in the area



Figure 5: Small colonies of *Acropora sp.* corals indicate some recovery after large cyclone damage in the lagoon

in recent years.

As many other remote communities, the people of Ambodiletra also suffer from long distance to the nearest hospital, no electricity, unstable water supply, overcrowded village school, lack of income generating activities and many other issues related to general development of the area. These are discussed more in detail under the results section of this document.

3. Methodology

Broad-based consultations, discussions and interviews were conducted by the DLIST team during five site visits (phases), in January and September 2008, in December 2009, April 2010, and August 2011. This section outlines and explains the adaptive methods and approaches used during the project duration. Figure 6 presents the methodology adapted for the development of the Local Economic Development Plan for Ambodiletra in the form of a flowchart.

Central to the development of any Local Economic Development (LED) Plan is consultation with the local community and stakeholders. In Ambodiletra this has been done in several ways, namely in the forms of large community meetings, stakeholder group meetings/visioning exercises, key-informer's interviews, and interviews with individual stakeholders on the beach.

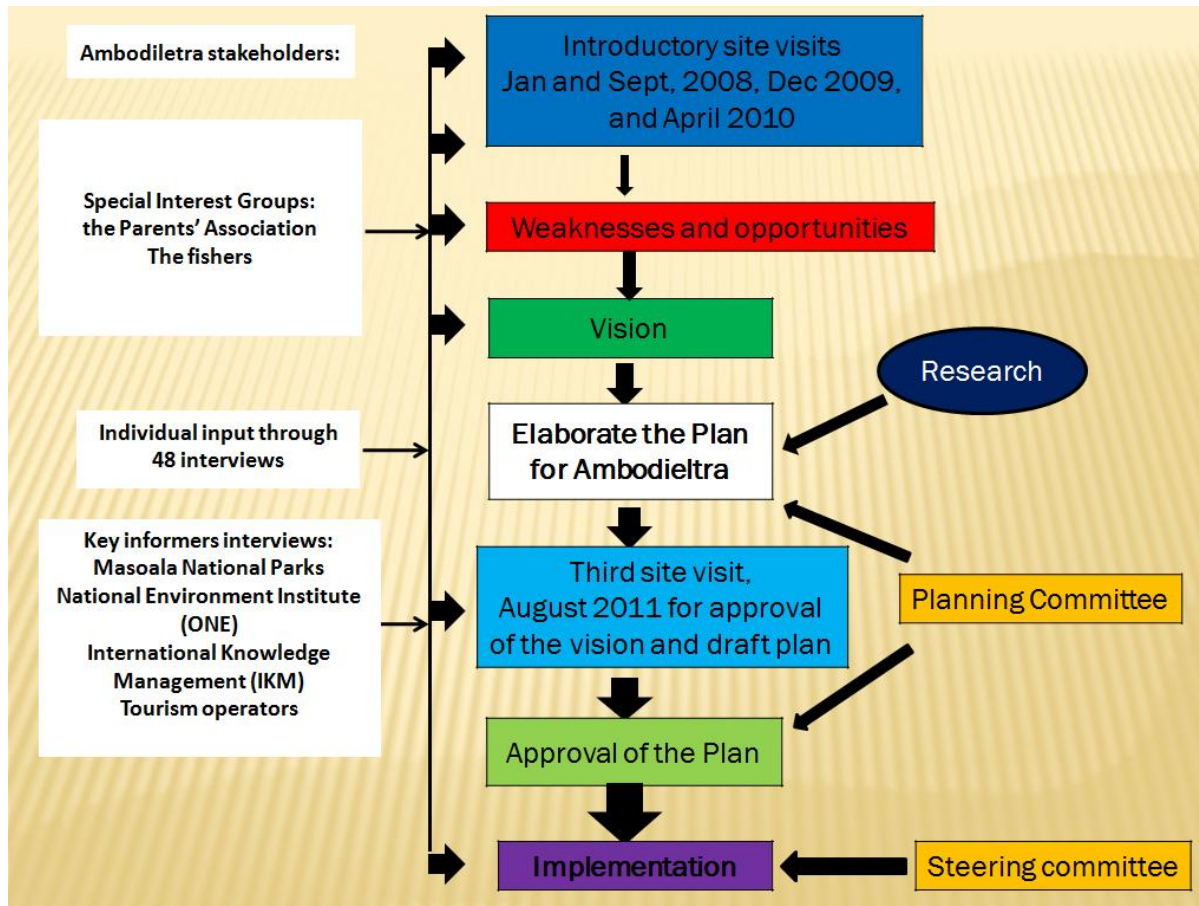


Figure 6: The planning approach used for the Local Economic Development Plan for Ambodiletra, Madagascar

3.1. January 2008

During the field trip undertaken in January 2008, the Convention de Partenariat⁵ with ANGAP (now Masoala National Parks) was renewed, whereby they would fund the building of a school that would also function as an environmental education centre and a focal point for the creation of alternative livelihoods that could alleviate pressure on the marine resources. It was agreed that the school should be built using cyclone-proof material. The community committed to build a house for the teacher and grow some vegetables and chickens for him. IKM committed, on behalf of Nathan Hale School in Connecticut, salary for five years for the teacher as well as assistance to the teacher and the covering of miscellaneous costs.

3.2. September 2008

A second site visit was undertaken to Ambodiletra in September/October 2008. The purpose of this site visit was to attend the official opening of the school, which construction had been agreed at the previous site visit in January 2008.

⁵ A partnership agreement between Masoala National Parks, International Knowledge Management (IKM) and the Ambodiletra community

The approach taken here was to establish a partnership between IKM, the Masoala National Parks and the community to investigate alternative livelihood that will lessen pressure on the marine resources. For these efforts the school has become the focal point: for meetings with the parents, and for piloting alternative livelihoods options. Each party makes undertakings, including the community (putting land aside, etc.). When the DLIST ASCLME team returned in September 2008 they found that all earlier promises had been kept. The school was standing and was then inaugurated with further commitments from politicians, the community, the school system, IKM, and EcoAfrica. Films were shown to the community using a portable generator and data projector, and discussions were had on marine issues as well as placing Ambodiletra and its strategic locality within the wider context of the Agulhas Current and the ASCLME Project. The community, park officials (some came from the other marine parks, even as far as Antsiranana in the north, to study the emerging model that can be driven by a multi-stakeholder partnership) and the DLIST ASCLME team held an extensive planning meeting where commitment were reconfirmed and more made by the different parties.



Figure 7: Opening of the school in Ambodiletra in October 2008; planning board in the school; representatives of four other marine parks that came to witness and discuss the model being developed at the demonstration site

3.3. December 2009

A third field visit was arranged in December 2009/January 2010 when further meetings were held about the multi-purpose school and other initiatives. During this trip, the weather situation was not very favourable with a cyclone and bad weather in the north east region of Madagascar. It was therefore not possible to sail to the Masoala Peninsula to meet with the Ambodiletra community, but meetings were arranged with the Masoala National Park team at their office, with community representatives as well as other stakeholders. Issues related to the illegal rose wood logging were discussed with the new person in charge of the Ambodiletra part of the National Park, Mr. Jean Fortuna Toto. The future of the school was also discussed and the commitment from International Knowledge Management (IKM), contributing on average 4500\$/year to the school in the form of salaries for the teachers and other support, was further enforced at this visit. The second teacher has started working at the school and the students and parents have established a garden around the school which is well looked after.

3.4. April 2010

A fourth site visit was arranged in April 2010. The purpose of this site visit was to collect more input to the Local Economic Development Plan for Ambodiletra. This would be achieved by conducting individual interviews with community members, to arrange a community meeting, to arrange stakeholder group visioning meetings, to conduct film screening events and to meet with and interview key informers (Government and Non-Government Authorities, Parastatals, NGOs, etc.). The main purpose of this trip was to identifying weaknesses and issues with the current situation, 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 second site visit was to collect stakeholder input for a draft vision for the future and to select representatives for the Planning Committee from the community. This site visit is represented in by the second blue box in Figure 6. The involvement of all development stakeholders in the area has ensured that the process has been fully participatory and transparent.

3.4.1. Planning Committee

During the stakeholder group meetings organised in the community, the different groups were encouraged to select one or two representatives for the Planning Committee. The main purpose of the Planning Committee during this process 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 about the progress to the community. Table 1 shows an overview of the selected community members.

Table 1: Selected representatives for the Planning Committee for Ambodiletra

	Name	Group
1	Madame RAZAFIMIANDRISOA Esperance	Parents' Association
2	Madame Marilyne	Parents' Association
3	Madame Hortnecia	Parents' Association
4	Mr Christin	Fisher
5	Mr Mahisatra	Agriculturer
6	Madame Kalo Berthine	Chief of the Sector (Local Administration representative)

3.4.2. Individual interviews

Socio-economic research was conducted with people in the community (see Figure 8). The questionnaire that was used is found in Appendix I attached to this report. The purpose was to collect important socio-economic information, information



Figure 8: The DLIST team conducting an individual interview in Ambodiletra

about programs and projects that have been active in Ambodiletra, as well as gathering individual opinions on the weaknesses, opportunities and the future vision. The people who were involved in fishing also answered a section of questions specifically related to fishing, the status of the marine resources and marine conservation.

A total of 48 individual interviews were conducted by the DLIST team with the support from field assistants from the community school and from the Masoala National Parks office.

3.4.3. Stakeholder group visioning exercises

Group visioning exercises were conducted with stakeholder groups that had been identified during the first site visit (listed on the left side in Figure 6 above). The groups were; the Parents' Association, and the Fishers. The aim of the discussions was to gather input from the groups to identify weaknesses and opportunities that exist in the community when it comes to development and sustainable resource management. The identified issues and opportunities and the overall discussion with each group was used to give input to a draft vision for the future development of the community.

3.4.4. Key informers interviews

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

- i. **University of Toamasina** – Mr Chaplain Toto (Tel: +261-331-203816, email: ttsiadino@yahoo.com)
- ii. **Office National pour de l'Environnement (ONE)** – Mdm Hajanirina Razafindrainibe (email: hajaniry@yahoo.fr or hajanirina.sage@blueline.mg), Mr J-R Rakotoarijaona from the National Environment Office.
- iii. **Masoala National Parks** – Mr Haja Salava from the Masoala National Parks (email: hsalava@yahoo.fr)
- iv. **Papa Cyrille (tourism operator in Maroantsetra)** – Mr Cyrille Tsimanova, (email: vanillamasoalodge@yahoo.fr)
- v. **Madagascar Expedition Agency (MEA)** – Mr Naina Raharijaona (email: mea@moov.mg)
- vi. **International Knowledge Management (IKM)** – Mr Martin Torresquintero (email: mtclimbs@snet.net)

3.4.5. DLIST film festival screening event

Two film screening events were organised to show films related to marine and coastal environment issues; one in Ambodiletra where more than 100 people attended (see Figure 9) and one in Maroantsetra with around 10 participants. The purpose of the film screening events was to increase people's awareness about marine and coastal ecosystems and threats to their survival. The following films were shown;



Figure 9: Film screening event in Ambodiletra

- The ASCLME Educational film (Kiswahili version)
- A Last Glimpse - Madagascar

3.5. August 2011

The most recent field trip was conducted in August 2011. The purpose of this site visit was to present the draft vision and the main findings to the community for their input and approval (represented by the last blue box in Figure 6 above). Other activities such as a snorkelling assessment of the lagoon and a film screening event were also part of this trip.

An official steering committee has not yet been created, but it is proposed that the existing Planning Committee (see Table 1) will take on this role.

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 of the Ambodiletra community. 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 addressed by the plan, based on the 48 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 analysis also examines the current development stakeholders in the area. 18 of the interviewees are women and 30 are men.

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

3.1.1. Age composition

The age composition of the randomly selected interviewees in the village shows that the largest group, 44%, are between 20-29 years of age. Fewer interviewees fall in the category of 30-39 years of age, which most likely is a result of the fact that interviews were conducted during day time, when many people in this category would have been in the fields or on the sea working. 22% each fall in the categories 40-49 years of age and equal or above 50 years of age (see Figure 10).

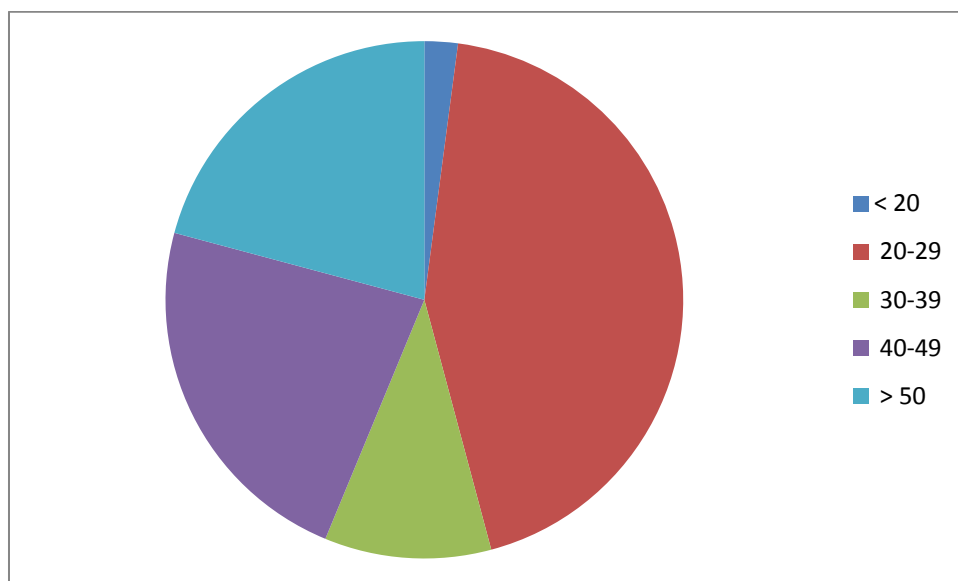


Figure 10: Age groups of the interviewed community members

3.1.2. Education level

Education is today compulsory for children between the ages of six and fourteen in Madagascar. The current education system is divided into primary schooling (for five years, from age 6-11) and secondary education (for seven years, divided into junior secondary from age 12-15, and senior secondary from age 16-18). At the end of the junior level, graduates receive a certificate, and at the end of the senior level, graduates receive the baccalauréat (the equivalent of a high school diploma).

The interviews included a question about what level of education the respondents have and the result show that many of the community members have low or non-existing formal education, with almost 30% saying they have no schooling or that they are illiterate (see Figure 11). Just over 40% of the interviewed community members have partially attended primary school, but no completed all 5 years. Only 25% of the respondents have completed primary school or attended partial secondary education, while none of the respondents have completed secondary school or higher education. It is hoped that this situation will improve among the generations of children that grow up in the village now, since the community school was built.

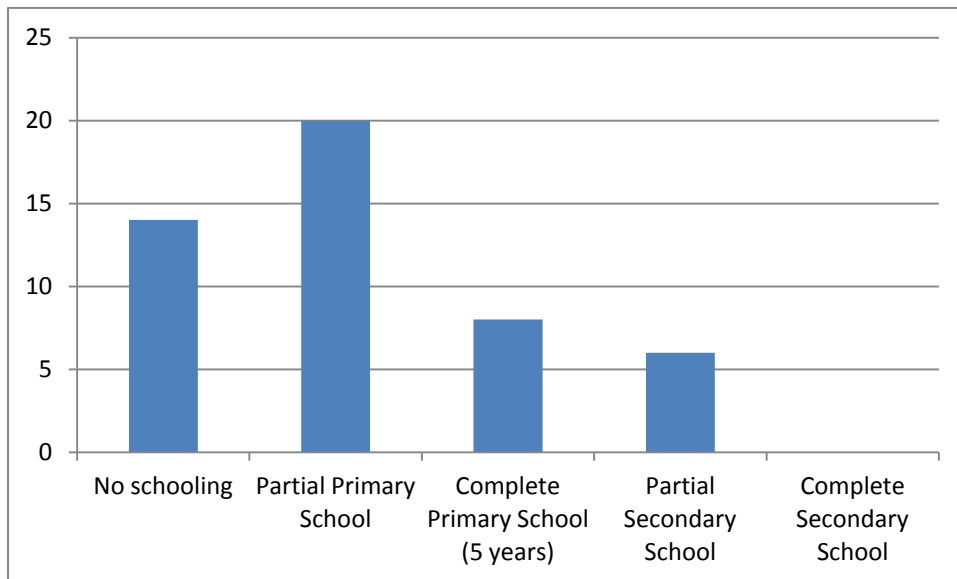


Figure 11: Education level among the interviewed community members

3.1.3. Livelihoods activities

The people in Ambodiletra sustain themselves on either fishing or farming. The farming is mainly focused on rice, some fruits and cash crops such as vanilla, coconuts and sugar cane. One person has stated that he works as a gardener by the deserted lighthouse in Ambodiletra and two responded that they have no job/livelihood. An overview of the primary livelihoods activities are seen in Figure 12 below.

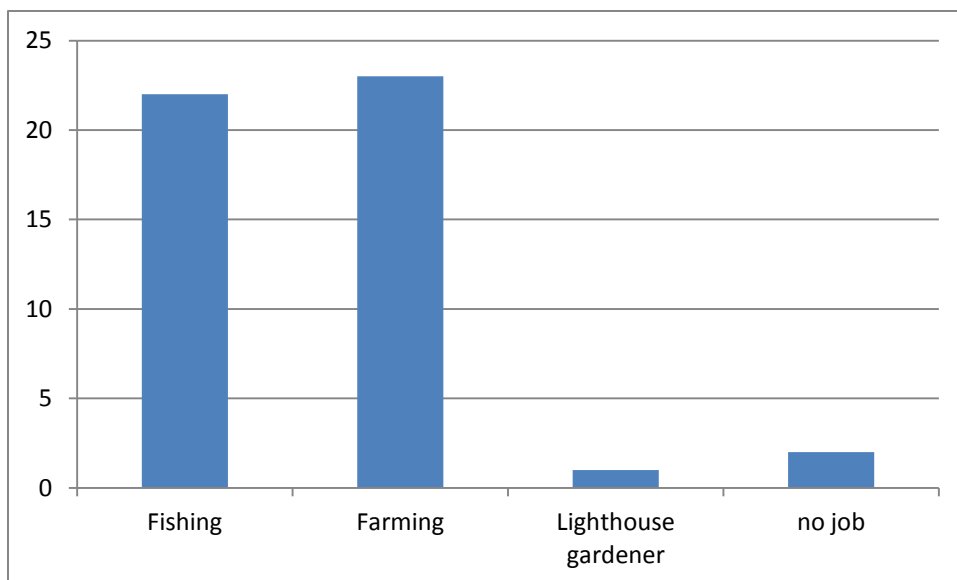


Figure 12: Primary livelihoods activities among the interviewed community members

When asked about alternative income generating activities it is striking that 20 of the 22 fishers, mention that they do farming (rice, vanilla etc.) as an alternative livelihoods activity. As many as ten people state that they don't have an alternative activity, while some of the

farmers list specific cash crop farming as an alternative activity (such as sugar cane, vanilla and coconut oil). Two farmers mention fishing as their backup income generating activity and one person mentions chicken farming and one person can work as craftsman. Figure 13 shows the alternative income generating activities mentioned.

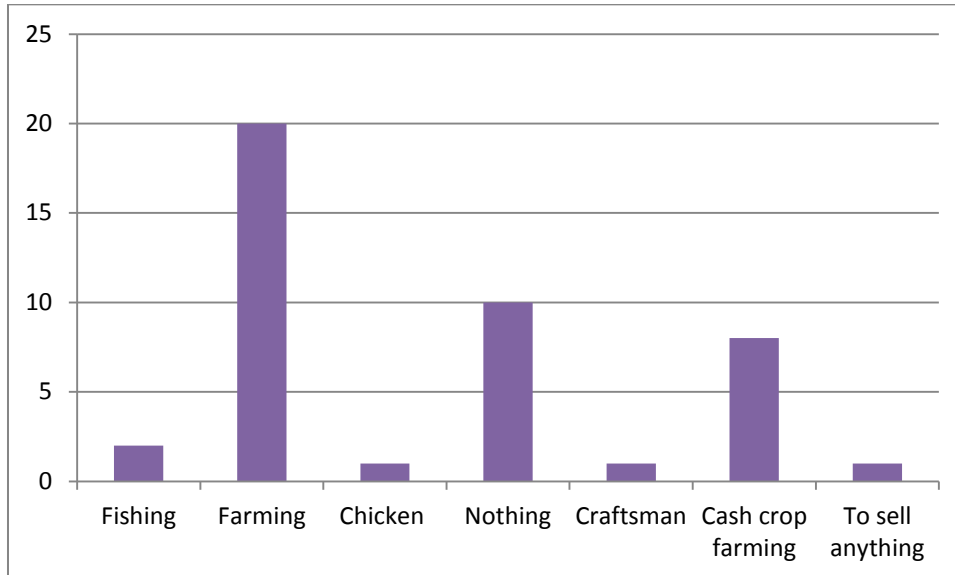


Figure 13: Secondary livelihoods activities among the interviewed community members

3.1.4. Income sufficiency

When asked about income sufficiency, almost 91% of the respondents say that the income they make from their livelihoods activity is not sufficient to make a living (Figure 14).

The reason for this income insufficiency was also investigated as part of the interview. The answers given by the respondents vary from low production (both in farming and fishing), lack of fish in the sea, low prices for the products (both farming products and fish), low income, bad fishing gear, lack of buyers for the products, too many expenses and high costs of living.

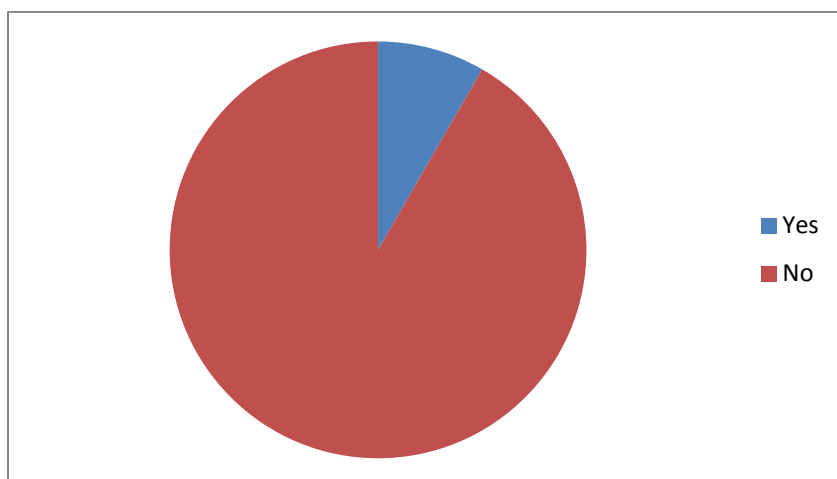


Figure 14: Income sufficiency among the community members

The number of dependants influences how people perceive their income level. Surprisingly the community in Ambodiletra has relatively few dependants per person with around 25% having zero or only one person to support. The biggest category have 2-3 dependants and very few, only 2% having 8-9 or 10 dependants (see Figure 15).

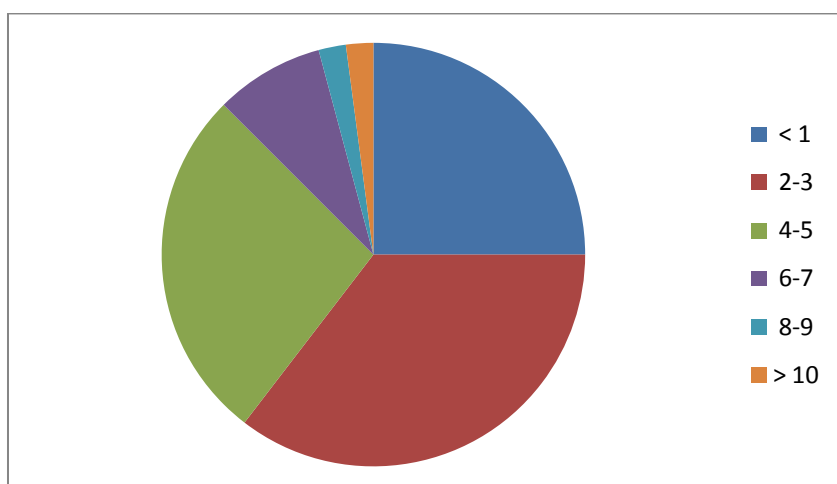


Figure 15: Number of dependants among the interviewed community members

3.1.5. Weaknesses, issues and opportunities

The interviews also collected information from the individuals related to weaknesses and opportunities for the future development of Ambodiletra. All weaknesses/issues, opportunities and the input for the vision that came out from the individual interviews are listed below;

Weaknesses and issues:

- People are bad
- The nearest hospital is too far away

- People in the community don't take their responsibility
- There are not enough buyers of the products that are made in the village (fish, farming produce and handicraft)
- The products bring in too low prices
- The area is not so productive
- The community is not unified
- There is no electricity and no lights
- The road⁶ is bad
- The school is already overpopulated with too many children (lack of space and teachers)
- Not so good water supply

Opportunities:

- The school is a great opportunity for the village. It is a strong construction and it gives a future to the children
- Fishing is good and the sea is rich
- The Masoala National Parks (former ANGAP) brings opportunities to the community
- Farming is a good opportunity⁷
- The women's association is good as it unifies people
- The prices for the products from the village could increase and bring more money
- The nature in Ambodiletra is beautiful
- The area is very attractive for tourists to visit (if they come as far as to Ambodiletra)
- The village is clear and well looked after

Input for the future vision:

- The community should be more developed
- The road/path to Masoala village and to Maroantsetra should be improved
- The school should be expanded
- Water supply should be improved
- Tourism could be developed
- The village could have a factory (fish processing) or some industry to bring more income

4.2. Stakeholder group visioning exercises

The team met with the Ambodiletra Parent's Committee and a group of Fishers in group visioning exercises to identify weaknesses, opportunities and to give input to a common future vision for Ambodiletra.

Table 4 below includes the overall issues grouped into topics listed by all groups:

⁶ The community refers to this as a road, but it should be noted that it is more like a path through the forest. It is really only a forest path for walking and no motorized vehicle could pass.

⁷ Some community members particularly pointed out that coconut farming is a good opportunity

Table 2: Weaknesses, opportunities and suggestions concluded from the community group meetings in Ambodiletra

Category	Weaknesses	Opportunities	Remarks/Suggestions
Environmental issues	Lack of fish	Do training with the fishers association on sustainable fishing methods	Generally improved awareness on the consequences of over fishing and illegal logging would improve the situation
	Cyclones	Initiate small scale community aquaculture project	Alternative livelihoods options will reduce the pressure on the resources in the lagoon and reduce illegal logging
	Problems with insects in the vegetable farms	Ensure all official buildings are made “cyclone proof”	Better planning for infrastructure construction (buildings) and introduction of rain water harvesting or an additional community well will improve the sustainability of the village
	Lack of fresh water	Provide community training in insect repellents and ecological farming	
	Illegal logging in the National Park	Introduce rain water harvesting and/or another community well	
		More funds to the National Park Authority would improve law enforcement	
Education and training	The school is getting overcrowded with children from other	Introduction of alternative income generating activities for the communities would reduce illegal logging	
		The Ambodiletra community school is a great initiative and	The school is getting over-crowded with children and the

	<p>villages</p> <p>Many people in the village have very low education</p> <p>Inadequate awareness about environmental issues among community members</p> <p>Fishers need training in modern techniques for fishing and boat maintenance</p> <p>The school garden failed because of lack of farming skills (insecticides etc)</p> <p>Training in aquaculture techniques could be a good alternative</p>	<p>it needs be expanded with more classrooms and at least one more teacher</p> <p>Adult education activities can be conducted in collaboration with the National Parks Authority to minimize environmental degradation</p> <p>If fishers are to reduce their negative impact on the environment they need more training and improved fishing methods and possibly aquaculture techniques</p> <p>Sustainable farming training is needed</p>	<p>capacity of the teachers must be improved</p> <p>The adult population are interested in more education and training as it would improve their skills and livelihoods options, and reduce negative environmental impacts.</p>
<p>Infrastructure and equipment/facilities</p>	<p>The fishers have old and poor fishing equipment and also insufficient knowledge on how to use modern gear</p> <p>Lack of reliable water supply and toilets</p> <p>Lack of a dispensary or clinic and too far</p>	<p>Investments in improved fishing gear could increase the catch, if combined with training as it would give access to new fishing areas</p> <p>This causes problems for the community and pollution</p> <p>People in Ambodiletra suffer from relatively simple</p>	<p>Currently the fishers only have access to the nearby reefs, of which some fall inside the MPA, giving them limited fishing grounds</p>

	to the nearest hospital/clinic The access road is in poor condition	diseases that could be treated The poor road isolates the village and reduces the possibility for traders to come to buy their products and also reduces the accessibility for tourists	With improved access road the community would have easier access to a market to sell their products, and tourism could be encouraged as access would be improved
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4.3. Key Informers' Interviews

Six meetings have been conducted with key informers, people who are well informed of the situation in Ambodiletra.

- a. **University of Toamasina** – Mr Chaplain Toto (Tel: +261-331-203816, email: ttsiadin@yahoo.com)
- b. **Office National pour de l'Environnement (ONE)** – Mdm Hajanirina Razafindrainibe (email: hajaniry@yahoo.fr or hajanirina.sage@blueline.mg), Mr J-R Rakotoarijaona from the National Environment Office.
- c. **Masoala National Parks** – Mr Haja Salava from the Masoala National Parks (email: hsalava@yahoo.fr)
- d. **Papa Cyrille (tourism operator in Maroantsetra)** – Mr Cyrille Tsimanova (email: vanillamasoalodge@yahoo.fr)
- e. **Madagascar Expedition Agency (MEA)** – Mr Naina Raharijaona (email: mea@moov.mg)
- f. **International Knowledge Management (IKM)** – Mr Martin Torresquintero (email: mtclimbs@snet.net)

4.3.1. University of Toamasina

The team that went to the demonstration site in Ambodiletra included a representative from the University of Tomasina. Mr Chaplain Toto has many years of experience from working with the communities in the Masoala peninsula, which was the target area for his PhD research on ethno-history of the Betsimisaraka people, who settled along the east coast of Madagascar.

Mr Toto knows the community in Ambodiletra since many years and he has seen the situation change over time. He has seen the environment, particularly the marine resources get over harvested in recent years, and he put forward the urgent need to do something about the resource management in this area. People are indeed highly dependent on the marine resources for their livelihoods, and if these resources can no longer provide protein for the people, they will suffer greatly. There is nothing to do on a local scale with regards to the frequent cyclone events that causes damage to the reefs, but the resource management must be better managed.

The school construction in Ambodiletra a few years ago was a major improvement for the community. This initiative should be supported and expanded to be able to support the children enough to pass national exams and to accommodate larger groups of children from surrounding villages.

The health issue is becoming a bigger problem in the village with the growing population, and a small village clinic would be very beneficial to the community.

4.3.2. Office National pour de l'Environnement (ONE)

The team met with representatives from the National Environment Office in Antananarivo one day before travelling up to the north east to visit the demonstration site community. Initially the DLIST intervention was explained along with the purpose of the demonstration sites and the LED planning initiative.

The links to the WIO-LaB project were highlighted by Mdm Razafindrainibe. She pointed out that the WIO-LaB Strategic Action Programme has been approved and she emphasised the importance to increase the awareness in the community about land-based pollution issues and consequences in the marine and coastal environments.

In relation to the identification of specific issues or weaknesses as input to the Local Economic Development (LED) Plan for Ambodiletra, the main input was that the LED development process should take such land-based pollution issues into consideration. The National Environment Office would like to be involved in the LED development process and supports the initiative. Other concerns that were raised in the meeting were for example how the DLIST intervention will inform the national ASCLME project with community input. It was concluded that the DLIST team will use the same information collected for the LED to also inform the national Marine Environment Diagnostic Analysis (MEDA) report.

4.3.3. The Masoala National Parks

Mr Haja Salava from the Masoala National Parks attended the same meeting at the ONE office in Antananarivo and later met again with the DLIST team in Maroantsetra. Masoala National Parks have worked very closely with the community in Ambodiletra for many years. They have a local national parks office located in the village and have worked with the

community and IKM to develop the community school and an environmental awareness programme.

Mr Salava expressed his support for the DLIST ASCLME initiative in Ambodiletra and the Masoala National Parks will support the Local Economic Development (LED) Plan development. As input to the early stage of the planning Mr Salava pointed out that the school is truly a great opportunity for the community and it needs to be expanded. But there are problems to get outside support since the recent political crisis in the country. The illegal logging in the national park was also highlighted as a major environmental threat that needs funds to be addressed at a national scale.

There is also a problem of destruction in the marine environment. The reefs have been badly damaged by cyclones and there is an ongoing problem of too high pressure on the marine resources.

4.3.4. Madagascar Expedition Agency (MEA)

The team met with Mr Naina Raharijaona, who runs a Tour Operator in Madagascar (the Madagascar Expedition Agency) a few days before they went to the demonstration site community in Ambodiletra. Mr Raharijaona has many years of experience from working in the tourism industry in Madagascar and he hopes that eco- and community based tourism can be one way forward for rural communities such as Ambodiletra.

He explained that the tourism business has dropped dramatically during the last year (since 2009), due to the political situation in Madagascar in combination with the overall financial crisis in the world which has caused tourism arrivals to most destinations to drop significantly. At the moment it is not possible to survive only on a business that is dependent on tourism, but he still has hope that the situation will change and that the tourists will realise that it is not dangerous to travel to Madagascar and start returning.

The main asset for the tourism business is however the untouched natural resources in terms of forests and wildlife, and it is therefore very urgent to improve the current management of the protected areas to minimise the illegal activities in terms of logging that are blooming in these times of political unrest.

4.3.5. International Knowledge Management (IKM)

Mr Martin Torresquintero has been involved in the Ambodiletra community for many years, by supporting the school initiative through IKM. August 2011 was however his first time to visit the site.

His main comments related to the weaknesses are that the village is located as such a long distance away from the larger town and it is thereby getting very isolated. The lack of reliable communications is also identified as a major problem along with the lack of easy

access to health care. Declining fish stocks is also an important problem for the community, and this is likely to get worse every year. Mr Torresquintero also pointed out that the LED planning activity will be very helpful as until now the community seems to lack a clear goal for the future development and a plan to achieve it. Soil erosion, over fishing and coral bleaching are the most obvious environmental problems in the area.

Mr Torresquintero also conducted many snorkelling assessments in the lagoons and he confirms that the fish populations are not very healthy and there are only very small individuals present on the reefs (which is a sign of overfishing).

In terms of opportunities for how the future situation could be improved, Mr Torresquintero highlighted land-based eco-tourism, whale watching, and historical tours (slavery routes) as something that could be further explored. Perhaps also amateur under-water archaeology could be developed in the area as there are many interesting spots around the Masoala peninsula to be explored, but to do diving expeditions in the area requires large investments in terms of equipment etc, so the land-based tourism development could be a first step.

4.3.6. Summary of weaknesses and issues

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

Weaknesses and issues:

- The school doesn't have sufficient capacity to provide good education for all the children, it needs to be expanded and to hire one more teacher;
- The marine resources are being over utilised;
- There is no clinic in the village and the health of the people could be improved;

4.3.7. Summary of opportunities and input to the vision

The input from the above listed institutions and key stakeholders have been summarised to the below list of opportunities and input for the future vision for Ambodiletra.

Opportunities:

- The area provides good opportunity for community or eco tourism;
- Farming could be expanded;
- If the marine resources were better managed they could provide sustainable food supply to the community;
- The village school is well functioning and established and can easily be expanded and operated with the current system.

Vision for the future:

- The school should be expanded with one more building and one more teacher;
- The community should get training in ecological farming practices and pest control for improved farming in the future (corn and vegetables);
- Installation of sustainable/renewable energy supply would provide good opportunity for the community;
- Ambodiletra needs a clinic;
- Training could be given to the communities in sustainable fisheries management and community based aquaculture.

4.4. Input from last site visit, August 2011

The most recent site visit, which was conducted in August 2011, had the main purpose to present the draft vision and main findings to the community and to get updated input for the plan. When the



Figure 16: The Masoala National Parks office in Ambodiletra with the damaged roof

team arrived in the village, it was obvious that the last cyclone had hit the village badly, and even destroyed the local office of the Masoala National Park (see Figure 17). In Ambodiletra, only the school building and the big shelter by the park were not damaged by the recent cyclone. In fact, team members were told that during the last cyclone, many residents took shelter inside the school building.

Noteworthy is the fact that many other small school establishments in the Masoala area have been affected by the current crisis in Madagascar. They have no teachers and the classrooms were destroyed by the recent cyclone. Consequently, many school goers have joined the Ambodilaitry school, where the school has a more organized structure, and the building survived the cyclone. This has put additional pressure on the school structure and the teachers and the need for expansion has become even more urgent than it was during the consultations in 2010. In addition, the first generation of pupils will pass the first official and national exam this coming school year, which also puts extra pressure on the teachers and students to achieve the goals and have a high passing score. A higher qualified teacher is needed at the school to support the students to prepare for the national exam. The community would prefer if the new teacher was a highly qualified female.

At this site visit some material was handed over to the school, such as stationaries, a biodiversity world map etc.

There was also some feedback given regarding the vegetable garden for the school. The community made a trial too grow different vegetables, but they had problems with insects eating the plants. They would therefore need training on how to produce biodegradable and environmentally friendly pesticides. Training on this should go hand in hand with other

farming technique training such as add compost and other fertilisers to increase crop growth and health. However the corn plants grew successfully and a larger corn plantation could be developed in the area.

The urgent need for a community clinic was also pointed out as very important. There had been a sick woman that passed away recently in the village because she could not reach the existing clinic in time. The need to have a midwife nurse based in the village and access to basic health care such as inoculations for TBC etc would improve the lives of people in the village greatly. There is currently an old building that was constructed many years ago by the Meteorologica service, and it was suggested that this building should be rehabilitated and turned into a village clinic. Another option that was discussed was to construct a new wooden structure, in collaboration with Masoala National Parks for this purpose. The community have already selected a suitable place for this. The responsible officer at the clinic would then report to the Public Health zone of Antalaha which is in charge of the Masoala and Ambodiletra area. People also mentioned that they get sick from drinking the water in the village. If everyone was advised to boil the water before drinking it, the consumption of firewood will go up, so it would be better to introduce a water filtration system.

The community has listed the following medicines/treatments as priority;

1. Malaria;
2. Tuberculosis (the team noticed a couple of small children who may have been afflicted by the disease);
3. Waterborne parasites and the gastrointestinal diseases they cause;
4. Lack of access of topical antibiotics to cure infected cuts and wounds;
5. Sting relief/anti-itch medication, for treatment of toxic plants and insects.

4.4.1. Feedback from the lagoon assessments and observations in the village

The team noticed that there were only two fishermen that came to the village to sell their catch during the entire site visit, and the fish they had to sell were very small in size, where in the past many fishermen used to come to sell fish, particularly at the camp when visitors were around. This is a clear indication of the degradation of the marine resources. Unlike in the past, no octopus or lobsters were available. The smoked fish was also very scarce and only small fish. This shows how urgent it is to address the issues of overfishing and unsustainable use of the marine resources.

During the team's stay at Ambodiletra they were surprised by the lack of any fish larger than 10-12 cm, including the fish purchased by the cook and then consumed by the expedition. Also the overall lack of octopus was very obvious. During the entire trip to Masoala the largest fish ever seen was a 35 cm fish offered for sale to the team in Ambanizàna. A similar

situation was observed in the market in Maroantsetra, were most of the smoked fish for sale at the market was under 15 cm in length.

The surveys in the lagoon were conducted mainly in situations when the visibility was reduced by surge, but in most cases there were clear evidence of sand on top of many corals, as well as some coral bleaching. Despite the cyclone, the shallow clusters of corals and rocks still had a reasonably healthy variety of small tropical fish as well as some healthy soft and hard corals, including table and brain corals (see Figure 18). No evidence of broken coral or damage done by nets. Some giant clams were observed, as well as soft anemones. Lizard fish and shells were also observed at the bottom. A large school of soldier fish and a school of damsel fish were also observed. An occasional small parrot fish, as well as small snappers appeared from time to time. No fish larger than 20 cm were seen and there were no eels, lion fish, groupers or sea cucumbers. In many of the sites there were also quite large numbers of sea urchins.



Figure 17: Rocky corals with some small corals growing and some sea urchins

The seagrass beds that were visited by the team were quite species rich and hosted many species of marine life such as lizard fish, crabs, banner fish, and triggerfish.

4.4.2. Film screening event

A film screening event was arranged in Marofototra, where the team spent one night on their return towards Maroantsetra. An environmental documentary was shown to the community and it was much appreciated.

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 19):

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 5.2). 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 5.3).

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 5.4). Areas of intervention are also linked to a 1-year, 5-year and 10-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.

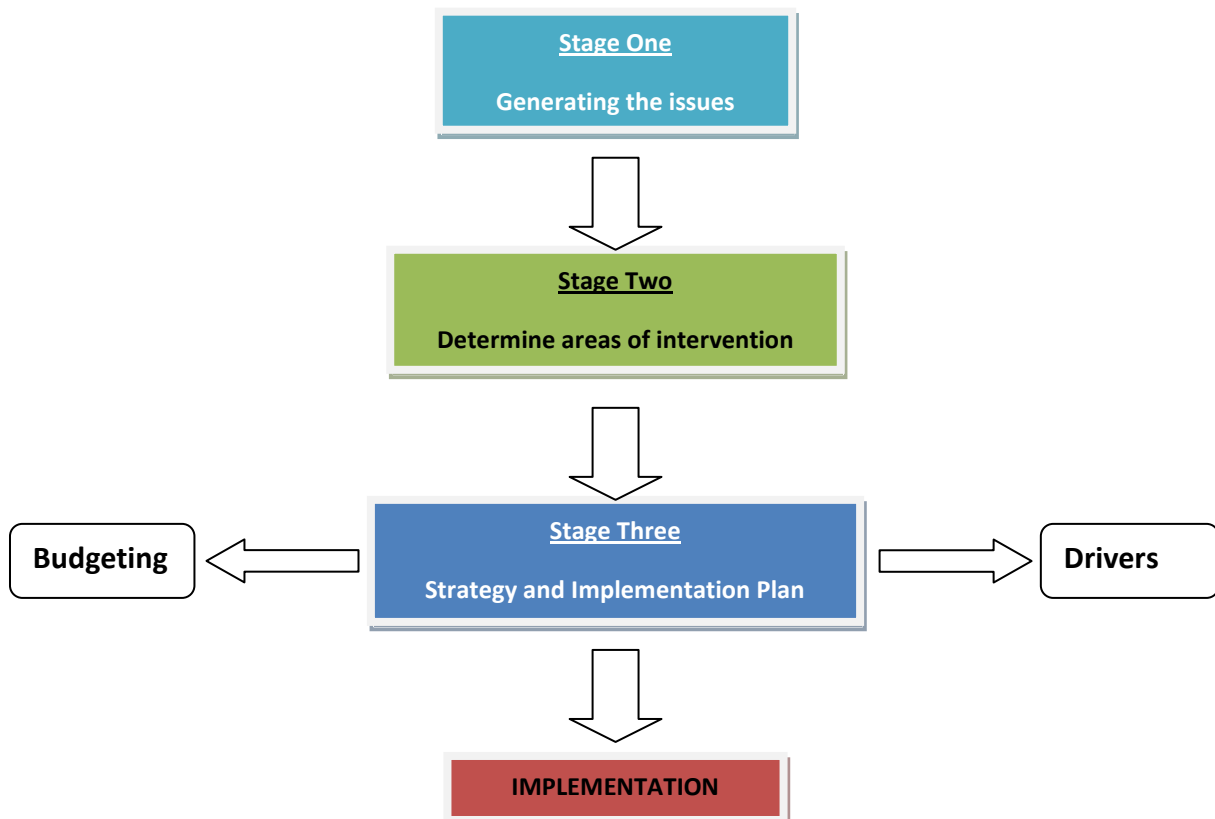


Figure 18: Stages in the development of the plan

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. Nine main issues were identified and are listed below:

1. The school is getting over crowded and the classroom space is not enough and the teachers are not competent enough to prepare the older children for the national exams;
2. The community is not united and people don't collaborate;
3. It is very far to the nearest hospital. This means people suffer from diseases that could have been cured if treatment was available. Many children also suffer from diseases they could have been inoculated against if the service was available. Maternal health could also easily be improved if a trained mid-wife was not too far away;
4. The area is not so productive for agriculture and the school vegetable garden had problems with insects;
5. There is no electricity in the village;
6. The water supply is not always good;
7. The road/track to Maroantsetra and surrounding villages is in poor shape;
8. The marine resources are declining – because of overharvesting, habitat destruction by cyclones, coral bleaching and other factors;
9. The community has no market for selling local products for reasonable prices.

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, 5 year and 10 year timeframes. The timeframes are merely an indication of both the urgency and the relative ease by which these can be implemented. The abandoned lighthouse has been highlighted as a suitable site for some of the proposed interventions. It could be a good place for installing wind power turbines and solar panels. A food drying project could be set-up in the old buildings and it could possibly even host the village clinic. Currently, the lighthouse facilities belong to the meteorological department, but if it was handed over to the Masoala National Parks Authority it could easily be developed. If a eco-tourism project is initiated, the buildings

around the lighthouse could also be renovated and used as a lodge for tourists visiting the area.

1. School expansion project

The existing school agreement between the Parent's Committee, Masoala National Parks and IKM should be renewed. Funding should be found for an additional school building and it should be constructed next to the existing school, using the same cyclone proof construction technique. An additional teacher should also be found for the school (or even two), of which the community would prefer if one was a woman. The new teacher should have sufficient capacity to prepare the older children for the national exams at the last school year, and should be computer literate.

The school buildings should be fitted with solar panels for lighting and a phone charging station (and possibly even a small phone signal device). Further down the line the school could also use the solar power to charge a lap-top with a 3G internet connection. The community should provide housing for the new teacher/s and the school vegetable garden should be revived⁸. The school should also be fitted with toilets for the children and teachers.

2. Set-up of a village clinic

The village urgently needs a clinic and a midwife nurse. A small clinic building could be constructed using the same cyclone proof construction material and design as the school. The community have already identified a suitable area for the clinic. The nurse should be a trained mid-wife to support deliveries in the village and also do annual inoculations of children in the village and have access to a small dispensary.

3. Sustainable agriculture and community forestry techniques and a solar drying hub

Training for community members in sustainable agriculture techniques will improve the productivity very much in this area. This activity should include an assessment on what type of crops that are suitable for the area, how the community can improve productivity by adding compost and fertilisers (cow dung and guano) and by using biological pesticides and insecticides, suitable for the region. The training should also include training for community members in preparing seedlings for community forestry.

This initiative could also be combined with a small solar drying hub that could provide the community with opportunities for preserving and packing of food (fish, fruits etc) which would also increase their value for export to Maroantsetra.

⁸ After some community members have been given training in sustainable agriculture techniques and insect repellent techniques

4. Installation of a village well

Lack of sustainable water supply has been identified as a problem by some stakeholders. A community water well is needed and rain water harvesting should be encouraged on all buildings with proper roof. Also, a filtration system should be installed to ensure the drinking water is safe for human consumption.

5. Design and installation of a renewable energy system

The lack of access to electricity is hindering development in Ambodiletra. Electricity is needed to charge cell phones, to power a cell phone signal tower, and to give basic lights in the village, and to power a small freezer for the fishers. This initiative needs to be combined with an assessment of what energy source would suit best to this environment; it could possibly be a combination of solar, wind and bio-gas energy.

It is also proposed that the households in the community are provided with individual solar lanterns for home use (for example D.light⁹) to encourage children to study school homework and other activities that need light in the house in the evenings.

6. Road upgrade project

To improve the communication to other villages and the town of Maroantsetra, also during the cyclone season, the road/forest track needs to be improved so that it will be possible to travel with motorised vehicles. This would improve the opportunities for the community to export their products to new markets and it could potentially also encourage tourism to the area as transport will be facilitated. This will be a relatively expensive investment, so it is expected it will take long time and need support from the National Parks Authority and District Government in Maroantsetra as well as outside donors.

7. Set-up of temporary octopus closures

Blue Ventures have assisted communities in Velondriake to set up seasonal closures for octopus fishing which have been very successful in increasing overall catch and profitability of the octopus fisheries in that region¹⁰. It is proposed to send a few representatives from Ambodiletra to Velondriake to see the benefits and how it has been set-up there. Then one of the local staff from Blue Ventures should come to Ambodiletra to design and set up similar closures in the lagoon area around Ambodiletra (and possibly the other two marine parks in the Masoala peninsula area).

⁹ D.light has a range of affordable and robust solar lanterns, see http://www.dlightdesign.com/products_product_line_global.php

¹⁰ <http://www.velondriake.org/>

8. Set-up of a community eco-tourism initiative

International Knowledge Management (IKM) and EcoAfrica have previously been involved in arranging community tourism trial runs to the area, including visits to the Ambodiletra village¹¹. The community are very positive to this activity and see tourism as a good opportunity for them to make additional income. The two tourism operators that have been consulted as part of the development of this plan have shown an interest to be part of and support such an initiative. A community eco-tourism initiative would need support from IKM or EcoAfrica to organise the trips and to support marketing of the trips to get groups together. It is recommended that the groups should consist of between 8-12 tourists and if possible 2 trips per year could be conducted. Other destinations in Madagascar could easily be combined with a couple of days community visit in Ambodiletra.

If the community tourism initiative gets up and running with regular trips, it would be good to renovate the camping platform and to set-up as small community handicraft market where the villagers (mainly women) could sell hats, handbags and other local goods direct to the tourists (see Figure 20). It might also be possible to set up a system to export handicraft to the airport in Maroantsetra or even abroad.



Figure 19: Malagasy handicraft for display by the airport in Maroantsetra

9. Encourage and formalise the community committees

Some community member pointed out that there is a problem with conflicts and lack of collaboration within the community. If the existing community groups, like the Parents' Association and the fishers group, would be expanded with more interest groups and more formalised, it could contribute to combating this issue.

10. Set-up a community sea-cucumber farming initiative

With declining wild marine resources to feed the community mariculture could be explored as an alternative. Sea cucumber is not going to reduce pressure on local species used for food supply, but it will provide a new opportunity for income generation in the

¹¹ Odendaal F. J., 1996. Trial runs as a Tool for Responsible Ecotourism Development. In: The Ecotourism Equation: Measuring the Impacts, E Malek-Zadeh, Yale University Bulletin Series Vol 99, Yale University, USA.

area. Blue Ventures have experiences from similar projects in the Velondriake area¹² and it is proposed that experts from Blue Ventures should be brought to Ambodiletra to explore this activity and other mariculture techniques.

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.

¹² <http://www.velondriake.org/alternative-livelihoods/mariculture.htm>

Table 3: The implementation plan

Key:

1 year

5 years

10 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 other beach 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 targeted	Steps	Relevant parties	Cost (in US dollars)
1. School expansion project	1,5	<ol style="list-style-type: none"> 1. Relevant stakeholders to meet and agree on what steps are needed, available budget etc 2. Secure funding for the school and the new teacher 3. Develop an implementation plan (who does what) 4. Start construction 5. Advertise and hire a new teacher (or two) 	The Parents' Committee, Masoala National Parks, IKM, Ministry of Education, donors	<ol style="list-style-type: none"> 1. 4,000¹³ 2. Unknown⁺ 3. No costs 4. Unknown⁺ 5. No costs
2. Village	2,3	<ol style="list-style-type: none"> 1. Meet with representatives from the Ministry of Health to 	Community representatives,	<ol style="list-style-type: none"> 1. No costs

¹³ Should cover travelling costs for a representative from IKM and Masoala National Parks to go to Ambodiletra for the meeting

clinic		<p>establish support (nurse salary)</p> <ol style="list-style-type: none"> Design and budget the clinic, the equipment and the construction Secure funding for construction Construct the clinic Hire a midwife nurse to run the clinic 	Ministry of Health, the Masoala National Parks, donors	<ol style="list-style-type: none"> Unknown⁺ No costs Unknown⁺ No costs
3. Sustainable agriculture training	2,4	<ol style="list-style-type: none"> Establish a community farming group to participate in the activity Identify specific training needs Find suitable consultant to provide the training Initiate practical training in Ambodiletra (school or Marine Park office) 	Masoala National Parks, Ministry of Agriculture, IKM, community members	<ol style="list-style-type: none"> No costs No costs 1,000⁺ Unknown⁺
4. Installation of a community well	6	<ol style="list-style-type: none"> Find a suitable expert to assist with design and location for the well Develop a costing proposal and secure funding Select appropriate location for the well Involve community members in digging the well Construct walls, lid and a pumping mechanism 	Masoala National Parks, IKM, community members, private sector ¹⁴	<ol style="list-style-type: none"> Unknown⁺ No costs No costs No costs Unknown⁺
5. A village renewable energy project	5	<ol style="list-style-type: none"> Find a suitable expert to visit Ambodiletra and make an assessment of appropriate energy solution¹⁵ Prepare a proposal based on energy needs and possibilities in Ambodiletra Secure funding for the initiative Construct and install the electricity project 	Community members, IKM, Masoala National Parks	<ol style="list-style-type: none"> Unknown⁺ Unknown⁼ No costs Unknown⁼

¹⁴ Depending on the total cost for the well construction, donations from private sector in the area could possibly cover this intervention

¹⁵ EcoAfrica have previously worked with Jason Morenikeji, The Clean Energy Company, www.tcei.info

6. Road/track upgrade project	7,9	<ol style="list-style-type: none"> 1. Set up a meeting with the Ministry of Transport, Masoala National Parks and representatives from other communities in the area to discuss the initiative 2. Undertake a cost/benefit analysis of the project 3. Secure funding 4. Initiate the road upgrading 	Masoala National Parks, Ministry of Transport, community members	<ol style="list-style-type: none"> 1. No costs 2. Unknown⁺ 3. Unknown⁺ 4. Unknown⁺
7. Set-up of temporary octopus closures	2,8	<ol style="list-style-type: none"> 1. Involve Blue Ventures and the Velondriake team to establish collaboration 2. Select a few representatives from the community and arrange a site visit to Velondriake 3. Invite a local expert from Velondriake to assess the area and identify suitable closure areas 4. Conduct community awareness raising activities 	Blue Ventures/Velondriake, Masoala National Parks, Ministry of Fisheries, community members	<ol style="list-style-type: none"> 1. No costs 2. 5,000 3. Unknown⁺ 4. Unknown⁺
8. Community eco-tourism initiative	2,9	<ol style="list-style-type: none"> 1. Agree on a suitable timing for next trip 2. Develop a complete programme for the trip 3. Market the trip to international tourists 4. Prepare the community for the visit and assist them to prepare handicraft and other products to sell during the visit 5. Carry out the trip 6. Develop a regular programme for trips twice per year if the demand is sufficient 	Community members, Ministry of Tourism & Handicraft, MEA, Papa Cyrille, IKM, EcoAfrica	<ol style="list-style-type: none"> 1. No costs 2. No costs 3. Unknown⁺ 4. Unknown⁺ 5. No costs 6. No costs
9. Encourage community committees	2	<ol style="list-style-type: none"> 1. Assist the existing community committees to become formalised through proper registrations 2. Encourage new community committees to be formed (for the farming initiative, the community handicraft project, 	Community members, IKM, Masoala National Parks	<ol style="list-style-type: none"> 1. No costs 2. No costs

		the octopus fishing initiative and the sea cucumber mariculture activities		
10. Set-up a community sea cucumber farming initiative	2,8	<ol style="list-style-type: none"> 1. Establish contact with Blue Ventures 2. Invite an expert to assess the Ambodiletra lagoon for what mariculture would be appropriate and where it could be done 3. Conduct a market assessment for how the products could be sold and at what price 4. Establish a community group to carry out the mariculture 5. Conduct training with community members and initiate the activities 	Community members, Blue Ventures, Masoala National Parks	<ol style="list-style-type: none"> 1. No costs 2. Unknown⁺ 3. Unknown⁺ 4. No costs 5. Unknown⁺

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

For Ambodiletra 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.

5.1. Training, human resource development and community engagement:

- a. Any construction work undertaken in Ambodiletra as part of this plan (or other) should encourage sourcing as large portion as possible of the workforce from the community. It may not be possible to source skilled staff from Ambodiletra, but, as much as possible unskilled labour should from this community;
- b. Any private sector establishments on the Masoala peninsula 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;
- c. Established tourism enterprises are encouraged to offer internships opportunities for community members in the field of tourism and hospitality, and any other training that could be provided;

5.2. Promoting local businesses:

- d. The tourism establishments and operators from Maroantsetra should encourage their guests to visit remote communities such as Ambodiletra to spread the income;
- e. Tourism establishments near or in the Masoala should monitor the proportion of goods and services that are sourced from local producers. This may include provision of marine products for the hotel restaurant etc. Local communities or emergent entrepreneurs can also be assisted to develop their products so that it can be more easily used by others and marketed to tourists.

- f. Visitors to the area should be given the opportunity to purchase locally produced crafts and curios and local craft workers should be assisted to develop new products to meet market demand;

5.3. Social responsibility:

- g. Some businesses might want to contribute to community development in terms of Corporate Social Responsibility (CSR). Contributors to CSR may make propositions on how such funding may be spend locally, for instance in ways that may benefit both the private business/investor and the local community; such funding may also be spent on the actions identified in the Local Economic Development (LED) Plan, such as the community water well and handicraft support – to encourage tourism to the area;

5.4. Government and/or NGO involvement and contributions:

- h. There are numerous ways in which government and/or NGOs 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 some proposed activities in the Development Plan into their annual budgets or normal activities aimed at preserving the environment, improving health in rural communities, stimulating economic growth, and so forth. Ministries are encouraged to study and consider priorities listed in the Local Economic 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.

5.5. How to use the Development Plan and next steps

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

This Development Plan is seen mainly as an advisory document that can guide activities in Ambodiletra. The plan must be presented to the key stakeholders (Masoala National Parks, relevant Ministries, Private Sector in the area, 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. Presentation to the community and other stakeholders:

A Local Economic Development Plan can only be effective if it is widely known. It should first and foremost be made available to the local community, translated into French or Malagasy, and there should be no delay in its dissemination. The local community should have copies of the plan, along with relevant authorises as listed above. Possible partners (private sector in the area, NGOs etc.) 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 Masoala National Parks representatives and other relevant stakeholders. The community representatives could, at least initially, be the same as the selected Planning Committee.

d. Support for implementation:

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 assist in the drawing up of a Logical Framework Analysis (LFA) for the implementation. 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 community.

Appendix I: Ambodiletra Interview

A) PERSONAL DETAILS

1. What is your name?
2. How old are you?
3. What is your education level?
4. How long have you lived here?
5. What do you do for a living and for how long have you been doing it?
6. How many people depend on you?
7. Is the income you get from your work sufficient? Yes [] No []
If, No. Why?
8. What alternative activities do you have?
9. How many times per week/month do you and your family eats fish/chicken/meat?

B) WEAKNESSES & 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?
11. What are the opportunities in your community?
12. Are there any NGOs/programmes/projects that have been active in your community?
Yes [] No [] If yes, who are they? And what have they done/achieved?
13. How do you want your community to look after 15 years? A vision for the future...

C) CONSERVATION OF RESOURCES

14. Do you think the marine park helps? Yes [] No []
In what way?.....
15. Should there be more conservation areas or should the current one be opened to fishing?.....
16. Which areas do you think tourists like to visit and how many tourists visit this area per year?
17. Where do you think the fish breed?
18. Would you like to know more about the ecology of the systems (environmental education)?
Yes [] No []
19. Do you ever see dolphins or whales? Yes [] No []
Do people sometimes kill dolphins/whales? Yes [] No [] I don't now []
20. Do you ever see sea turtles? Yes [] No []
Do people still harvest turtles? Yes [] No [] I don't now []

D) THREATS TO THE ENVIRONMENT

21. Are there threats to the environment? Yes [] No []
If yes, which are they?
22. Can you see "changes" in the environment? Yes [] No []
Which changes can you see?
23. How do these changed affect you?
24. How are these threats/changes caused?

E) COMMUNICATION AND GOVERNANCE

25. How does information spread in your community?
26. Who brings the news?
27. Does anyone tell you what is going on in the sea and what is happening to the resources?
28. If you want to complain or report a problem, where do you go or who do you contact?
29. Do you communicate with marine resource managers, government officials and park managers regarding the state of the marine resources or other issues (what?)?
Yes [] No []
30. Do you have a say in how resources are managed? How?

FINAL QUESTION (main questionnaire)

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

For Fishers;**F) THE LOCATION**

32. Where do you fish?
33. Which places would you prefer to fish if you could choose freely?
34. What types of ecosystems/species are available in the location you fish?
35. What are the problems you encounter in the area where you fish?
36. Are there other fishers coming to fish around here? Yes [] No []
a) If yes, Who are they?
b) How many are they?
c) Where are they from?
37. How many other boats are doing the same type of fishing in the same area?
38. Are there any conflicts? Yes [] No [] If yes, which?

G) METHOD AND GEAR

39. What kind of boat(s) do you use?
40. Do you own the boat(s)? [] Yes [] No
How many Boats do you own?
41. Do you work alone or in group? [] Alone [] in group
If you work in group, how many people are there in your group?
42. What kind of gear and method do you use?
43. Is there a fishers association, cooperative or committee in this area? Yes [] No []
44. If yes, do you or any of the people in your group belong to this? Yes [] No []
45. What can help you to get more value for your fish?

H) CATCH ANALYSIS

46. What type of organisms do you fish?
47. Do you discard any organisms that you don't use? Yes [] No []
48. Do you sell the fish? Yes [] No [] If Yes, where?
49. How many kg do you catch and how many kg do you sell per day?
50. How much do you sell your fish for?
51. How do you keep/store your fish?

I) FISHING STOCK AND LIVELIHOOD

52. How do you compare the amount of fish you catch today with 5 years ago?
 53. And 10 years ago?
 54. What is the reason for the change?
 55. What is the most common fish in this area?
 56. How do you feel about conservation efforts in this area?
 57. How has conservation efforts affected your livelihood?
 58. Do you think management of the marine resources is necessary? Yes [] No []
 Why?.....
 59. How can management work?
 60. What alternative activities could you do to create livelihood?
 61. What do you do when you cannot fish (due to bad weather for instance)?

J) INDIGENOUS KNOWLEDGE AND PRACTICE

62. Does the area where you live offer any cultural values? Yes [] No []
 If yes, what are the values?

S/N	Cultural values	Users (men/women/young people)
1		
2		
3		
4		
5		

63. Are there any sites of cultural importance in Ambodiletra? Yes [] No []
 a) If yes, what are they and what are they called in your local language?
 b) If yes, how are they used? (mention the use of each).....
 c) If yes, are there ritual sites linked with conservation? Yes [] No []
 d) If yes explain how?
 64. How do you get access on that ritual site?
 65. What are the main activities done on the ritual sites?
 a) Worshipping shrine b) Sacrifice c) Fetch traditional medicine d) Others (Specify)
 66. Is this site managed/conserved traditionally? How?

K) FACTORS INFLUENCING INDIGENOUS KNOWLEDGE

67. Do people (including you) living in Ambodiletra use Indigenous Knowledge in their daily activities? Yes [] No []
 If yes, explain with examples how they use IK related to the following activities:
 a) IK in fishing
 b) IK in farming
 c) IK in treatment of different illness
 d) IK for domestic uses
 e) Any other use of IK in daily activities?
 57. Is the use of Indigenous Knowledge decreasing in the village? Why?

Appendix II: Key Informers' Questionnaire

KEY INFORMERS QUESTIONS

A) PERSONAL DETAILS

1. What is your name?
2. Which organisation/authority do you work for?
3. Phone number and email address?

B) WEAKNESSES & OPPORTUNITIES FOR THE COMMUNITY

4. When it comes to the development of Ambodiletra, or achieving a better life for the people living there – what are the weaknesses in this area?
5. What are the opportunities for good development in this area?
6. Have your organisation/authority been active in Ambodiletra? In what way?
7. Are there any other NGOs/programmes/projects that have been active in Ambodiletra area?
Yes [] No [] If yes, who are they? And what have they done/achieved?
8. How do you/your organisation want the area to look after 15 years? A vision for the future?

C) CONSERVATION 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) THREATS 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 changes affect the community on the beach?

E) COMMUNICATION AND GOVERNANCE

15. How do you/ your organisation spread information to the community?
16. If people on the beach 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?

