



- ii. The government institutions involved in coastal and marine issues such as the “Comité National pour le Développement Durable” (CNDD = National Committee for Sustainable Development) and the island specific sub-committees “Comité Insular pour le Développement Durable” (CIDD = Island Committee for Sustainable Development);
- iii. Parc Marin de Mohéli (PMM = Marine Park of Mohéli);
- iv. ReCoMaP (have funded ICZM initiatives in Mohéli).

### 1.1 Can the marine and coastal resources support the community?

Fish is the main source of protein for people in Mohéli. The individual interviews conducted with the community members show that people only eat meat or chicken around 1-2 times/month while they eat fish every day. The people from Nioumachoi, Ndrondroni and Hoanie made it clear that they find it hard to make a good living by fishing in the area. The resource base is good and people often catch a lot of fish (sometimes as much as 1-2 tonnes during one successful fishing trip). When the catch is big, the price however drops drastically and the income to the fishers is limited. The main reason for this is lack of cold storing facilities. It is however not an easy problem to solve since most of the villages in Mohéli don't have access to reliable electricity. In Nioumachoi for example, the village has electricity from 5 pm until 11 pm most of the days. The electricity is generated by a high capacity generator located near the village. Last year, a fish centre with many freezers was built for the fishing community in Nioumachoi with funding from the European Union through the Government of Comoros. This centre has however never been used, because of the high electricity demand to operate the freezers and the limited resources among the unorganised fishers to pay the electricity bills and fuel for the generator. Ndrondroni has no electricity and to install cold storing facilities it would be necessary to deploy solar/wind power or to install a generator, for which the fishers would most likely not be able to afford the fuel. The other option identified by the fishers is the need for better boats with bigger engines. If they had good boats and navigating equipment they could move all the way to the neighbouring island, Grand Comoros, to sell the fish at a higher price.

Some fishers, who mainly fish inside the MPA, report that the fish stocks have increased compared to what it used to be five and ten years ago. This increase would be attributed to the successful management and enforcement of the fishing restrictions inside the MPA. The fishers in Hoanie on the other hand, report that the fish stocks have decreased in recent years, which could indicate that the fishing in the non-protected areas is at an unsustainable level. In the areas outside the specific turtle conservation initiative in Itsamia, people report that the number of nesting turtles on the beaches is going down. One of the reasons for the decline is coastal development in the villages, another is poaching of nesting turtles and one new major factor is the coastal erosion which disturbs the traditional nesting areas. During certain seasons the coral reefs are also affected by bleaching.



Figure 24: A carcass of a poached green sea turtle on

The people who are originally from Mohéli have in general showed a positive attitude towards the marine park. The communities feel that they are involved and they benefit from the conservation activities through better fish catch, the construction of community managed tourism bungalows etc. Some of the communities have shown an interest in knowing more about the community turtle initiative in Itsamia. If more villages could set up turtle conservation initiatives and gain some additional income from tourism, it would benefit both the communities and the turtles. There is however a large group of people living on Mohéli originating from Anjouan and these immigrants tend not to respect the rules in the MPA as the native inhabitants do. They are also often the ones suspected of poaching nesting turtles on the beaches inside the MPA (see Figure 24).

Lack of good education was not identified as something very important for the community. Even the issue of inadequate health facilities was not often mentioned in the interviews and group discussions. It seems like people were more directly concerned with their income generating activities and to find alternatives on how to make more money. People did however mention that they would like to know more about the marine environment. They say that the MPA have contributed to better awareness among the fishers and adult population in the communities, but more is needed.

The communities also showed some concern about lack of organisation. As everyone does their own thing, there is no real structure or systems in place. They realise that should this be improved it may provide more opportunities. In some of the villages there are association such as the women's association, the fishers association and people involved in the marine park activities. A major environmental problem in Mohéli is beach erosion. The erosion is threatening houses along the beach side and this problem is being increased by the intensive sand mining taking place all along the beaches. The main reason for collecting large quantities of beach sand is to use it for construction and to make cement. This was particularly obvious in the village of Nioumachoi where many roads in the villages were lined with piles and bags full of beach sand. It is already illegal to collect sand on the beaches, but law enforcement is not functioning.

#### *Parc Marin de Mohéli*

Thus far, one field trip has been undertaken to the demonstration site in Comoros, in June 2010. The ASCLME National Focal Point and the Data and Information Coordinator, Mr Farid Anasse (Head of GIS Department - Ministry of Agriculture, Fisheries and the Environment) participated in the trip to the demonstration site. The DLIST team also included a marine biologist, a marine protected area specialist, stakeholder involvement and tourism specialists as well as an expert in slave trade history of the WIO-region. The LED planning process has started by conducting group meetings and individual interviews with local fishers in the area. So far, a total of 6 interest group meetings have been conducted, including fishers from the three selected communities, representatives from the marine park, a local marine conservation NGO and local government representatives in Mohéli. There were 23 individual interviews, and 3 film festivals conducted during this site visit.

## **1.2 Alternative livelihoods options leading to poverty reduction**

The majority of the community members are totally dependent on fishing and if they cannot fish they have few or no alternatives available to them. People living inside the area of the Mohéli Marine Park are beginning to realise the positive benefits of the conservation efforts as they say it helps provide more fish for them and they are learning more about environmental issues. The only available alternative livelihoods activity identified by the communities was agriculture. People have identified a need for more training to improve the efficiency of the agricultural activities. Some people also say they would like to get involved in tourism, but they also point out that there are too few tourists available to really make it a good alternative. People want the government to market Comoros more as a tourist destination, reduce the prices and work hard to increase the number of tourists visiting the country. Tourism is then foreseen to increase the opportunities for alternative income generating activities such as community bungalows, handicraft markets, etc.

Some people have also said that they try to develop other skills such as car or boat mechanics, but it is hard to get the right training and tools. Another alternative to fishing could be to work as a fish trader. With facilities to freeze, store and then sell fish as opposed to fishing themselves, they could also make a good living. But at the end of the day, a fish trader is just as dependent on the marine resources as the fishers themselves, and it might not really reduce the pressure on the fish stocks.

## **1.3 Weaknesses and opportunities for sustainable community development**

The community seems to be relatively stable socially and politically, without serious conflicts and problems that are apparent to outsiders during a short visit. There is not even much conflict between the fishers from Mohéli and the ones coming from the other islands (Grand Comoros and Anjouan). Even if they often fish in the same areas they tolerate each others and say there is no conflict. Few people made comments about the health facilities available on the island even though the hospital in Nioumachoi is often not open and the staffs are not always there. This is caused by the problems with the government not being able to pay people's salaries in time. When people were asked what they see as the main opportunity for the community they were more concerned about electricity, work opportunities, road access, education, freezers for fishing and other infrastructure. It is worth noticing that most people interviewed were responsible for supporting many people, and that might influence their focus on issues related to income generation rather than social welfare and community services.

Education is a concern but the community is more worried about the fishing opportunities. Most people interviewed had a primary education of some sorts, only a third of the people attempted a secondary education although few completed it and only the old major of Nioumachoi and one more person had a tertiary education. An NGO had helped establish a school, which is now under renovation. Although the community feels that more opportunities should be made available for the youth and education is very valuable they feel that sustaining their livelihoods is more important.

## **1.4 Bottom-up and top-down communication**

Communications in Mohéli seems to be very informal. People gather information primarily through word of mouth, chatting in public areas, the mosque and communicating over the phone. Many people share information while fishing. News and information from the outside comes from visitors and people travelling to other areas. The television, radio and the marine

park also bring news from the outside. There is a village chief who also provides some information to the community. If people have concerns or issues they need assistance with, they can approach the village chief, the associations, the police or even the army/navy. Communication seems fairly open and people seem comfortable to approach the village chief, the police and army/navy authorities. They are also able to communicate with the marine park and other associations. There is a new “computer centre” opened in the community building in Nioumachoi with four computers. At present these are not equipped with internet, but that is something the community would like to learn more about. This centre was installed to provide computer training for women in particular, but it will benefit the entire community of Nioumachoi. If this centre was equipped with an independent energy supply source (solar power) and internet it could function as a centre for communication and training which would benefit the community tremendously.