

DJIBOUTI REPORT

1 INTRODUCTION

1.1 Geographical scope and location

In the Republic of Djibouti, it was decided to define an Integrated Coastal Zone Management (ICZM) plan to all the coastal zone. This coastal zone was defined as comprised of a terrestrial band of 15 km from the coastline (which is 372 km long) and a maritime band constituted by the territorial sea of the Republic (the 12 maritime miles limit) (fig. 1). This represents a total area of about 5567 km<sup>2</sup>. 5 districts (the administrative unit of the Republic) on a total of 6 are concerned, from North to South: Obock, Tadjourah, Ali Sabieh (only for part of the terrestrial component but has no coastline), Arta and Djibouti.



Figure 1 : Delimitation of the coastal zone of Djibouti



Terrestrial component



Territorial Sea

The coastal zone is mainly characterized by a succession of sand or gravel beaches, bordering the major littoral plains of the country: Obock, Tadjourah, Djibouti), and rocky coasts along the main volcanic outcrops (from the southern part of the Tadjourah district to the Djibouti district). Mangroves are present in different stretches of the coastline (Khor

Angar, Godoriah, Djibouti-Doudah, Loyada) while fringing coral reefs sometimes protecting lagoons are present along most of the coastal zone and around islands (Sept Frères Islands, Moucha and Maskali islands which are protected areas). Coral reefs together with mangroves are characterized by a high biodiversity hosting an important number of species. Coastal and marine waters host a number of fishes, sharks, reptiles (mainly turtles) and mammals (dolphins, manatees) some of them being endangered species.

About 68 % of the total population lives in the coastal zone, mainly in the capital Djibouti (65% of the total population) and other main coastal cities (Tadjourah and Obock). It is estimated that around 80% of the GDP is produced in the town of Djibouti. The structure of the economy is dominated by the third sector (80% of the GDP), mainly port and trade activities, with an important traffic with Ethiopia. With a GDP of 92,474 million of DF (1 US \$ = 177.7 DF) in 2002. the country is classified as a Least Developed Country. The level of poverty is important (74.4% of the population was in a state of relative poverty in 2002). The access to health and education services is very low, especially in the rural areas. According to the 2003 UNDP human development index, the country was classified at the 153<sup>rd</sup> place on a total of 173 countries

## **1.2 Identified problems**

Based on the national expertise and on public consultations, the following priority problems were addressed by the ICZM plan: water resources, economic development, urbanization, pollution and biodiversity conservation.

Water resources constitute already a major problem because the country is located in a tropical arid environment (between 130 and 200 mm of annual rainfall) where the major source of water supply is constituted by groundwaters while wadis induce inundation problems, mainly in the coastal towns. This problem affects not only the rural districts due to the scarcity of rainfall and the fact that wadis are temporary but also the main town of Djibouti where the demographic rate poses a big problem for water supply. Moreover, almost everywhere in the coastal zone, the groundwaters are contaminated by salt water which not only affects the water supply for domestic purposes but also for agriculture. It is expected that in the town of Djibouti alone, water demand will increase by 55 to 81% in the next 20 years and will not be met given the actual infrastructure. These problems will be exacerbated by climate change.

The Djibouti district is the most vulnerable regarding water resources, followed by the Asal lake region, the Tadjourah and Obock regions as well as the coastal plain north of Obock (fig. 2). Another source of risk is represented by the inundations of the coastal plains by wadis which are temporary but catastrophic.

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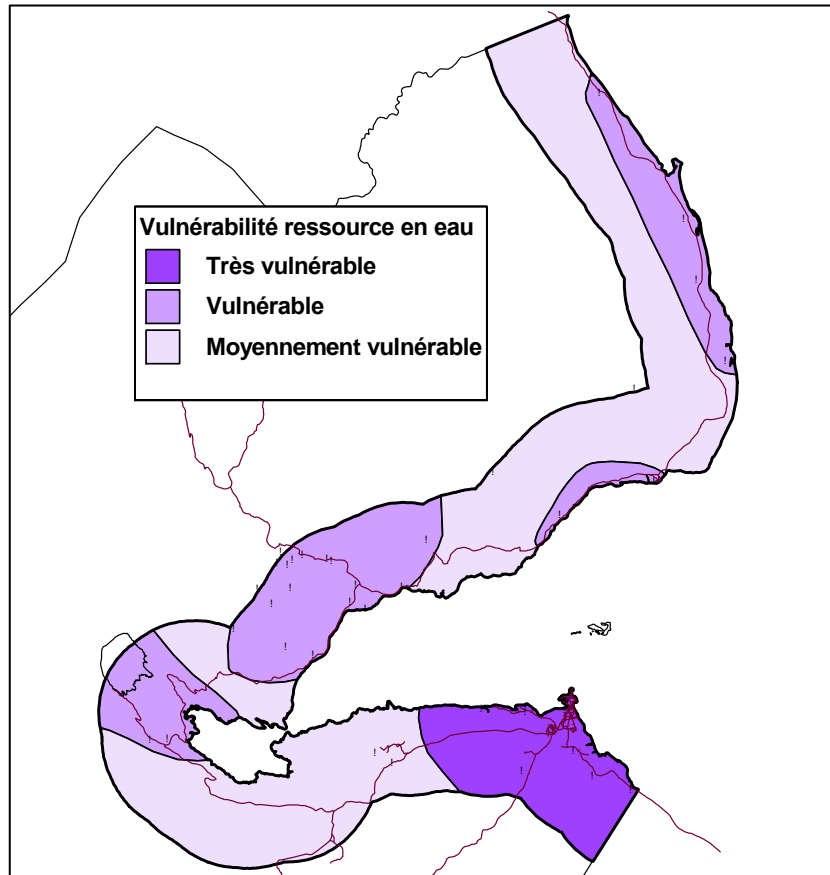


Figure 2 : Vulnerable zones for water resources (those in deep purple are highly vulnerable)

Pollution is mainly a problem in coastal cities but also in small coastal villages (fig. 3). The first source of pollution is due to sewage and solid wastes, followed by oil and other byproducts linked with the transport activities. In Djibouti, the existing sewage network previously designed for the evacuation of rain waters is contaminated by sewages of domestic and industrial origins. It is also invaded by sea waters due to the inadequate topography of the town. Most of these sewages go directly in the sea without any treatment. Solid wastes are not well eliminated due to limitations of the institutions encharged of it. In the other coastal sites, it is a major problem because they are deposited in the wadi's beds thus contaminating the groundwaters and also the sea during the rainy season. Oil pollution is mainly linked to the intense maritime traffic in the region, not only in the Djibouti harbour but also since the entrance of the Red Sea. Other chemical products present in the harbour area could induce major pollutions.

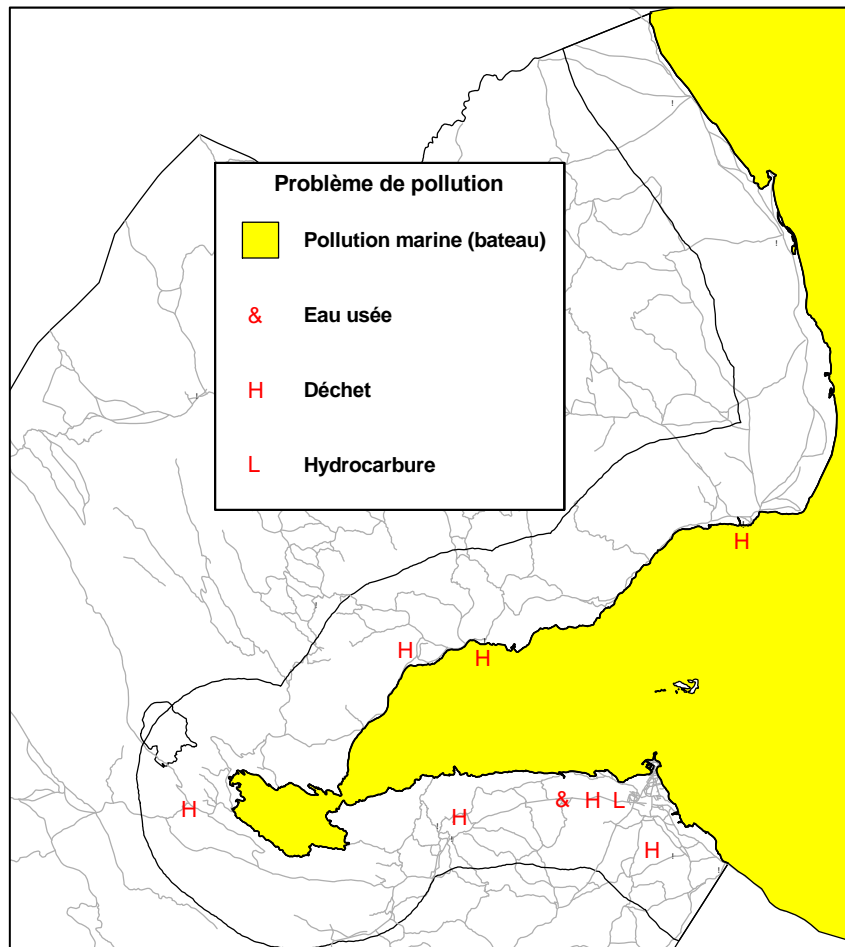


Figure 3 : Main pollution problems in the Republic of Djibouti

Marine pollution 
 & Sewage 
 H Solid wastes 
 L Oil pollution

Economic development is a major issue for the coastal populations, especially in the districts far from Djibouti where they don't benefit of all facilities for their activities (communication problems, non access to fishing and other equipments, credits, water, etc.). This favours the rural exodus, thus increasing the environmental problems in the urban centers. Given the important opportunities in the different districts, a better support to different economic activities in the coastal zone (fishing, tourism, pastoralism) could be beneficial for the local populations.

Urban development is an emerging issue which induces important disturbances in the main urban centers. Despite the production of urban plans, they are rarely applied due to conflicts between different interests. As a result, coastal erosion, disturbances of services networks (drainage, sewage, etc.), degradation of ecosystems, pollution, settlements in inundating areas, are noted and must be addressed.

Biodiversity conservation. High biodiversity sites are present in the two main coastal ecosystems namely mangroves and coral reefs (fig. 4). They constitute an important basis for the livelihood of local populations (traditional use for building materials and also for camel's pasture) but also for tourism and fisheries even though these activities are not well developed. Some of these ecosystems are already degraded or threatened by anthropogenic

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activities and need conservation measures to continue to provide goods and services for the benefit of the economic development. Some species like sea cucumbers, manatees, turtles, sharks are particularly endangered and need specific protection measures.

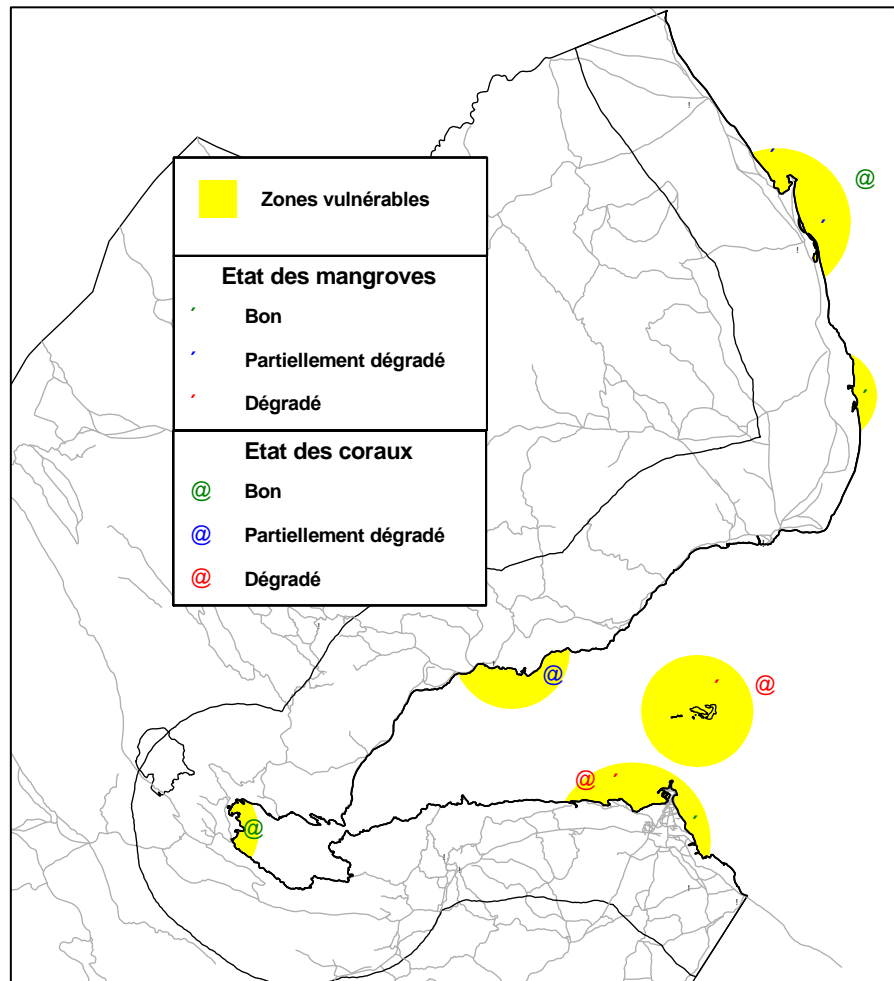



Figure 4: Vulnerable and degraded areas for biodiversity

 Vulnerable areas     Degraded mangroves     Degraded coral reefs

### 1.3 Existing mechanisms (before ICZM)

The legal framework for environmental matters is constituted by the Framework Law on Environment which was adopted in 2000. Two application decrees were then adopted under this law, one on environment impacts studies and one on the transport of dangerous matters. Moreover, different action plans and strategies have been elaborated like the National Action Plan for the Environment (in 2000), the action plans for biodiversity and desertification. The environment has been integrated in the national planning instruments, like the Law of Orientation for the social and economic development (2001-2010) as well as the Strategic Framework for Poverty Reduction (adopted in 2003).

There are other sectoral laws that define the use of resources and land for example for the fisheries, water use, public domain and land use. Specific legal instruments also exist for the marine protected areas (two relative to the Moucha and Maskali islands), the marine pollution, biodiversity, climate change and tourism.

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#### 1.4 Existing policy basis (before ICZM)

The Republic of Djibouti has a presidential regime with a central Government organized in different Ministries, each of them defining their policies for all the country. The first Ministry encharged of environment was created in 1993.

The Republic of Djibouti has recently engaged in a decentralization process which intends to give more responsibilities to the districts through their assemblies. The country is divided in 6 districts, 4 having a coastal zone (Djibouti, Arta, Tadjourah and Obock). Each district is lead by a "Commissaire de la République" who represents all the Ministries and acts as a mayor. Recently, Regional Councils have been established whose president is the Commissaire while other members are nominated by the Ministry of Interior. Each Council has an annual budget. There is a political will to reinforce this decentralization process.

## 2 THE ICZM PROCESS AS APPLIED AT DJIBOUTI

The process of elaboration of the ICZM strategy was based on the Project Implementation Plan proposed by PERSGA.

### 2.1 New ICZM Policy

The new ICZM policy was approved at the central Government level but the districts (decentralized units) will be involved in the application of the plan. This gives a national coherence to the new policy for the coastal zone while allowing regional administrative units to exert their responsibilities. It is considered that this process will reinforce the decentralization process by giving the districts more responsibilities for the sustainable development of their region while offering opportunities for capacity building.

The strategy has been organized along the five major issues relative to the coastal zone:

- improve the management of water resources
- facilitate the economic development of the coastal zone;
- control the urban development;
- better management of wastes and fight against pollution;
- preserve the coastal environment and marine and coastal species.

For each of these goals, general and specific objectives were defined which constitutes the body of the strategy.

Moreover, 5 pilot (demonstration) projects have been designed to address specific coastal problems in each of the districts (tab. 1).

Table 1: The 5 demonstration projects

Districts	Demonstration projects	Costs (US \$)
Arta	Integrated coastal zone management of Arta - preservation of the Arta beach's coral reefs - protection of the dugongs in Haramous-Loyada	30,000 25,000
Djibouti	Monitoring of the pollution of the sea and improvement of the Siesta and Heron beaches	70,000
Obock	Development of ecotourism in the coastal zone of Obock (Godoriah-Ras Syan zone)	50,000
Tadjourah	Integrated coastal zone management of Tadjourah	

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	- improvement of solid wastes management	60,000
	- preservation of the Sables Blancs coral reef	30,000
	- management chart of the littoral of Tadjourah	25,000
Total		290,000

## 2.2 Data gathering

Data have been extensively searched to produce the coastal profile of Djibouti. Three main sources of data have been used: those from the technical departments and from the national research institute (CERD) which have been obtained either through the national experts or through consultations with the services; those from international agencies (World Bank, UNEP, etc.) which were obtained mainly from internet consultations. Finally, national and regional reports produced by PERSGA in different areas (biodiversity mainly) were extensively used because giving up to date information for the country. National reports, particularly those produced for the National Environmental Plan as well as for the Biodiversity strategic plan were also extensively used.

The visit, with almost all the team, of almost all the coastal zone (between Ras Siyan in the North to Loyada, at the boundary with Somalia in the South) made during the first phase of the process was also a way to gather information, meet local stakeholders and take stock of the main problems

However, it was noted that information gaps existed like for example on some types of coastal zones (mainly rocky coasts) which are not known, or on the characteristics of polluted agents, the sea water chemical characteristics as well as oceanic currents. It was thus suggested in the strategic plan, to develop a data basis on the coastal zone, feed by a regular monitoring, and to report regularly (each two years) on the evolution of the coastal zone. Research programmes are also suggested to increase the flux of information on the coastal zone.

## 2.3 Draft plan formulation

The following process was followed to produce the draft ICZM plan. Two main phases were followed: first the production of a coastal profile of the Republic of Djibouti, then the production of the ICZM draft plan. The first phase was developed between June and November 2003 and was ended by the production of the national coastal profile in January 2004. The main purpose of this phase was to prepare a coastal profile to serve as a basis for the identification of the main coastal issues, the main stakeholders and institutions. A team of 7 national experts supported by an international consultant was set up, a training meeting was organized the 10 to 12<sup>th</sup> of June 2003 and the terms of reference of the experts for their contribution to the coastal profile (following the plan proposed by the PERSGA) were agreed. A first draft of the coastal profile was ready for November 2003 and was presented in two regional workshops (Djibouti and Tadjourah) for consideration and comments from the main stakeholders. The final draft was finished by January 2004.

The second phase was developed between November 2003 and December 2004. It began with a training workshop organized for the national team of experts (3-6 November) after which the plan of the strategic documents as well as the responsibilities of each expert were defined and agreed. The two regional workshops organized to validate the coastal profile helped to define the main priorities to be addressed by the strategic plan as well as actions to be taken. The team of national experts was changed a little to accommodate the new tasks but the same number of experts worked on the strategic plan. The draft plan was ready in

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November 2004 and was presented during a national workshop held the 17 November 2004 where all the districts's representatives were invited.

## **2.4 Consultation**

Intensive consultations were conducted during all this process. During the first phase, the major stakeholders were visited by the international consultant and the national coordinator of the team. A total of 21 senior government officials and stakeholders were met (12 senior officers, 3 district commissaires and regional councils, 1 stakeholder from the private sector and 5 associations). 6 more stakeholders were met during the second phase (2 from the tourism sector, 2 from the research and education sector, 1 project leader and the responsible of the new harbour of Doraleh). This doesn't account for the meetings with a number of responsables of the Ministry of Housing, Urbanism, Environment and Territorial Planning, particularly the Secretary of the Ministry and the Director of Environment and Territorial Planning.

Most of these stakeholders were invited in the restitution workshops (to validate the coastal profile then the strategic plan for ICZM). These workshops were attended by the main stakeholders and thus ensured a good contribution to the process mainly for the amendment of the documents and to define priorities as well as concrete actions to develop in the strategic ICZM plan.

The two validation workshops were publicized by the national press (La Nation) and the TV.

## **2.5 Plan adoption**

The ICZM draft plan was examined during a national workshop held in Djibouti the 17 November 2004 where all the districts' representatives (the Obock delegation had problems to get there but was briefed by the Director of Environment) as well as major stakeholders were invited. The document was extensively discussed and amended especially regarding the institutional arrangements. This meeting was attended by 39 participants of which delegations from the Tadjourah and Arta districts as well as 7 representatives of associations and 1 from the private sector (touristic).

## **3 INSTITUTIONAL FRAMEWORK AND ADMINISTRATION OF ICZM**

The ideal situation would have been to create a new structure devoted to coastal zone management but it was considered as not feasible given financial, technical and human limitations.

Thus, the institutional arrangement proposed was to give the coordination and follow up of the ICZM plan to the Direction of Environment and Territorial Planning through the designation of somebody especially encharged of integrated coastal zone management which could give raise to the creation of a new service responsible for this topic. This will mean the provision of new resources.

To ensure good coordination with all stakeholders, it was also proposed the creation of a National Committee for integrated coastal zone management which will include all the stakeholders, from the different ministerial directions, districts, and representatives of the civil society, private sector and research community. This committee will be lead by a representative of the Prime Minister and the vice presidency by the Ministry of Housing,

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Urbanism, Environment and Territorial Planning. The Secretariat will be the responsibility of the Direction of Environment and Territorial Planning. This National Committee will be under the authority of the National Commission on Sustainable Development.

It was also suggested to set up regional committees for integrated coastal zone management in all districts with a coastal zone (Arta, Tadjourah, Obock). The first role of these committees will be the monitoring of the pilot projects.

It was also suggested that the Ministry of Housing, Urbanism, Environment and Territorial Planning prepare a legal framework that could be either a new law for the coast or an application decree to the Framework Law on Environment. It was also suggested to ratify the Nairobi Convention on integrated coastal zone management.

#### **4 PARTICIPATION**

There was a good participation with almost all the other Ministries and technical directions involved in coastal zone management. The main problems, linked with conflict of competence, were encountered with the Ministry of Agriculture, Breeding and Sea. However, the representatives of this Ministry participated in the validation workshop and a formal agreement was achieved regarding the institutional arrangements.

The civil society and the associations, especially those interested in environmental matters, are still in their infancy. Few environmental associations related to the coastal zone already exist and they have limited number of members, means and equipments. The Ministry of Housing, Urbanism, Environment and Territorial Planning, and particularly the Direction of Environment and Territorial Planning help this process of constitution of environmental associations. It has been supported by the PERSGA programme to create environmental clubs in primary and secondary schools.

There are also professional (particularly fishermen) and local organizations, particularly in the Tadjourah and Obock districts which are concerned with environmental problems and contributed to the process from the beginning.

The private sector is still not well organized and the main interest came from touristic organizations which are directly dependent on a good quality of the coastal environment and which already developed initiatives for a better environment. The hotel managers also expressed their interest during meetings we had with them but they didn't participate in the workshops. There is a need to reinforce the exchanges with the private sector to obtain more engagement from them.

#### **5 MANAGEMENT AND COORDINATION**

Refer to point 3.

#### **6 MEASURES OF EFFECTIVENESS**

A programme for the follow up of the strategic plan for the integrated coastal zone management was designed and indicators were proposed for each of the 5 goals decided. For example, for the control of urban development, the following monitoring plan was suggested (table 2).

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Table 2 : Monitoring programme for the goal 3 of the strategic plan

Goal 3	Objectives	Specific objectives	Actions	Indicators
Control of the urban development	Littoral protection in the urban coastal zones	Institution of a maritime public domain	Define the limits of the maritime public domain	Maritime public domain delimited
			Define the modalities of occupation of the maritime public domain	Application decree for new buildings in the maritime public domain
	Ensure an harmonious urban development in the town of Djibouti	Planning of the urban development of Djibouti	Revise the Director Scheme of Urbanism (SDAU)	SDAU revised The document is effectively applied and respected
		Improvement of urban planning	Definition of land occupation plans	A land occupation plan exists
		Definition of a strategy to prevent catastrophic inundation risks	Definition of a prevention plan for inundation risks	A prevention plan for inundation risks is available
		Identification and protection of natural sites	Implementation of an identification programme of natural sites to be protected	Natural sites identified Protection measures for the natural sites
	Ensure an harmonious urban development of secondary coastal towns	Planning of the urban development of secondary towns	Revision of SDAU	SDAU revised Application of urban planning documents
		Define protection measures for sensitive coastal sites	Integration in the SDAU of protection measures for the sensitive coastal sites	Protection measures for some coastal sites

## 7 LESSONS LEARNT

This project was a good example of capacity building which is important in a country like Djibouti where human resources are limited. The work was entirely conducted by national experts even though they were supported by an international consultant. Moreover, this expertise remained in the country. National experts got a good experience on how to work in a team and developed their knowledge in this field relatively new of integrated coastal zone management.

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The importance of the consultation process was demonstrated here. It is through this process that the goal 2 (facilitate the economic development of the coastal zone) emerged as a priority goal for the populations which was not identified at first by the national experts because of their scientific-technical orientation (background). Not only the consultations gave the opportunity to learn more on the coasts but also they constitute a firm basis on which build the appropriation of the ICZM plan by the populations and their associations.

Conflicts between different Ministries could be disastrous for this type of initiative. However, it is certainly a common situation in most of the countries and needs to be addressed. The responsables for the ICZM plan must not be discouraged by these obstacles and must continue to discuss, invite and exchange with other Ministries and their representatives who are crucial for the process. Personal skills and ability to have diplomatic attitudes are also determinant in the resolution of these conflicts.

Like other countries, the Republic of Djibouti presents a number of good opportunities to preserve the coastal environment while continuing to develop economically the coastal zone in a sustainable manner. Opportunities are great because traditionally, the coastal zone is not well developed while presenting a lot of attractive settings (coral reefs, dugongs, whale shark, etc.) allowing for the development of ecotourism and associated economic activities. Environmental problems are still limited, mainly close to urban areas, and can be controlled given the implementation of the ICZM strategy.

## **8 REFERENCES**

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