SCIENTIFIC INFORMATION FOR MARINE PROTECTED AREAS IN THE UNION OF COMOROS.

EBSAs

Area: MOHELI MARINE PARK (PMM) COMOROS

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SUMMARY:

Countries of the Western Indian Ocean, have many marine protected areas that harbor an exceptional biodiversity. In the Comoros island of Moheli, a National Marine Park, was established in April 2001, by presidential decree. This is a sanctuary for many species and ecosystems representative at the regional and international. This is the first nesting site in the archipelago for the green turtle, an important breeding area for humpback whales and a refuge for the conservation of dugongs. The Marine Park of Moheli (PMM) is adjacent to the watershed of Mount Mledjelé where is located the nest of the largest bats in the world, endemic of the Comoros (Pteropus livingstonni) and many regional endemic bird species. This set, is part of a participatory approach to resource conservation, to integrate communities in the process of sustainable development, according to management objectives of a PA category VI of IUCN.

INTRODUCTION

Sustainable development in our countries is based on a rational management of nature. Management and preservation of marine biodiversity and coastal and island states in the region of the western Indian Ocean are recognized as important issues, and are brought to the forefront. The first recommendations on the establishment of a protected area in Moheli are from 1988 but it is only April 19, 2001, that Presidential Decree No. 01-053/CE on the establishment of the Marine Park of Moheli was signed. The latter provides a classification of the area south of Moheli into a national park, in accordance with Article 46 of the Framework Law on Environment, under the name "Marine Park of Moheli," and parts of administrative territory of the island of Moheli. The Marine Park of Moheli, is the only protected area that exists in the Comoros archipelago.

I- GEOGRAPHICAL LOCATION:

The Comoros archipelago is located in the Indian Ocean at the northern entrance of the Mozambique Channel between 11 ° 20 'and 13 ° 04' south latitude and 43 ° 11 and 45 ° 19 'east longitude, equidistant (approximately 300 km) from Madagascar and the east coasts of Africa. It comprises four islands, separated from each other about 80 km and separated by depths from 2000 to 3000 meters: Grande Comore (1,150 km ²), Moheli (290 km ²), Anjouan (425 km ²) and Mayotte (375 km ²). Moheli is the smallest of the four islands of the archipelago. It is in this island of Moheli Marine Park was established. The PMM is localized in the area south of the island between 12 ° 23'S and 43 ° 47'E. It covers an area of 404 sq km, ranging from coastal villages to Miringoni Itsamia including its islands and islets of Nioumachoi, and a large area of open sea, to the 100m isobath. The coastline in question is approximately 55 km and the reef flat surface of about 4000 ha. However, there are conservation areas to ensure the viability of conservation targets such as representative habitats and species. Other areas are dedicated to conservation of renewable natural resources, such as reserves closed to fishing or other activities such as ecotourism or scientific research. **Thus, the PMM is located entirely within an area of national jurisdiction.** (see maps 1 and2)

The marine park extends to the 100m isobath. The reef flats are in shallow water while the plateau extends to depths varying between 10 and 50m. It is mainly influenced by the South Equatorial Current (SEC) and the Mozambique current which, at its origin in the vicinity of latitude 11 ° South. Its speed is variable and ranges from 10 to 80 miles per day with an average of 20 miles per day. Apart from this general scheme, in the area of the Comoros, the current runs to the west with an average speed of 1.5 knots, and up to 3 knots. Upwelling areas would lie to the west along the walls of the tray and close-Dzaha Magnougni islets. Tides, semidiurnal type, have an amplitude of 1 to 3 m (4 m for spring tides).

Offshore islands, extends west-east alignment of shoals reaching -8, -10 m. It could be a draft barrier reef. Thus, the physical characteristics of seawater change with the seasons. From May to October, the temperature of surface waters varies between (26-30 ° C) and (23-27 ° C) from October to May The salinity is about 34-35 ° / oo, with a thermocline above 100 m depth. The climate is tropical and humid under oceanic influence, characterized by two seasons: a hot wet season (austral summer), from December to March and a dry, cool season (southern winter) March-April to November. The average rainfall is between 1500 and 5000 mm depending on altitude with strong annual variations.

The island is at the limit of the preferred route of cyclones, which, over thirty of cyclonic disturbances have affected the archipelago since 1900. At the river, fifteen permanent streams and semi-permanent drain watersheds of the area adjacent to the park, except in the east, and the set of Django,where the network is temporary. In geological terms, Moheli is a volcanic island formed in the Tertiary, in the late Miocene. The training was conducted in two stages, the western part of the island, the most recent and its production by the islets of Nioumachoi and The ridge rises to over 790 m. It is characterized by rugged terrain of sharp points which diminishes towards the east and the coastal plains. The coast is very jagged, diverse, alternating with rocky points, of low coasts, cliffs and coves. Cutting coastline gives way to gravel beaches, black volcanic sand or white sand reefs as well as areas of fine sedimentation occupied by mangroves.

DESCRIPTION OF THE CHARACTERISTICS OF THE AREA PROPOSED

Moheli Marine Park is known for its importance in the conservation and sustainable management of marine and coastal natural resources at national level and in the western Indian Ocean. Effective management of the MMP requires an identification of priorities. These priorities include the title of 'conservation targets. Conservation targets are mainly characterized by ecosystems, habitats, ecological communities and distinct species. Elements of biodiversity target are usually identified and prioritized according to two criteria: habitat, community or species representative of a biogeographic region, country or sub-national area distinct, and a habitat, community or species threatened or at risk of significant loss or degradation due to human pressures.

Thus, there are two types of conservation target, a target which often includes a focal habitat or ecosystem as a whole or one or more species that are grouped directly threatened by human activities, and an integrated conservation target, when chose a habitat or ecosystem as the focal conservation target. Using a standardized evaluation system called ecological Miradi, Sept. direct focal conservation targets were identified for the MMP including several integrated conservation targets of great interest. there are

a- Coral reefs:

With the target integrated: molluscs, sea cucumbers, corals, reef fish, but there is also a connection with the feeding areas of the hawksbill turtle (Eretmochelys imbricata). The coral reef Marine Park of Moheli is the most developed of the Comoros, also enjoying good health and prospects for ecotourism. A fringing reef runs along the entire coastal area. Younger reef platforms surround the various islets and rocks of the area. Sketches of barrier reefs occur on shoals. The island was affected by El Niño events, particularly in 1997-1998, which resulted in various hydro climatic changes, particularly the warming of surface waters. The phenomenon of coral bleaching in 1998, the last registered, has been particularly severe, with water temperatures reaching 31 ° C in April and early May 1998 and a mortality rate reaching over 80%. Studies made in 2010 show coverage coralliferous of about 60% of live coral (UNDP). 220 species have been identified (EUCARE, 2002), representative of the ecoregion (Figure II.A.2). Mention is made especially for families as well represented Acroporidae, Poritidae, and Agariciidae Favidae. Improve the current state of coral reefs of the MMP, is a priority because their ecological functions, their productivity in marine resources and their importance for ecotourism development are of paramount importance for biodiversity conservation and development sustainable in the area. Coral reefs have always been subject to sampling, achieved by gentle people. Excellent barrier against high tides in these times of climate change that cause devastating coastal erosion, they are also real nurseries for fish that are in these ecosystems shelter and food.

b- **Sea grasses:**

With the target integrated: molluscs and sea cucumbers, but also areas of food of the green turtle (Chelonia mydas) and dugong (Dugong dugon). The importance of these ecosystems, real pastures, primarily due to a high biomass and primary production and the considerable wealth of wildlife. Their survival depends on maintaining the conditions of salinity, light, hydrodynamics and their relationships with the associated fauna, particularly in terms of herbivore. Marine Park of Moheli, the marine seagrass beds have undergone a complete restructuring in the late 1990s. Heavy sediment inputs in the lagoon from deforestation, coupled with the effects of global change (ENSO 1994 and 1998) resulted in the disappearance of communities Thalassodendron ciliatum. This species previously covered all depressions back reef Marine Park of Moheli, leaving a succession of species with different ecological preferences. Two studies conducted by Beudard in 2003 and 2005 showed the recolonization of these areas by pioneer multispecies seagrass, Halodule-dominated uninervis. Depending on environmental conditions and substrate, one can observe also patches Halophila ovalis and Cymodocea mixed extents (C. rotundata, C. serrulata), isoetifolium Syringodium and Thalassia hemprichii.

These grass beds are subject to significant seasonal variations. They are strongly influenced by sedimentation due to erosion of the watershed during the rainy season (turbidity, recovery). They show an extension in southern winter thanks to the ecological conditions is more conducive to swipe and sediment imported through the southeast trade winds. On a high concentration of marine fauna (molluscs, young fish, sea cucumbers ...), seagrasses Marine Park of Moheli are true prairies for dugongs and green turtles, with whom they have relations of survival. The dominance of Halodule uninervis fact Moheli Marine Park a haven for the survival of the dugong. Heavy grazing by turtles and dugongs, tends to increase pasture quality in composition and nutritional quality. Habitat and food source of these two iconic species threatened according to the International Union for Conservation of Nature (IUCN), the viability of this ecosystem is considered good. The creation of legal reserves in tax and business (professional and recreational) would be an asset to the Marine Park of Moheli on the conservation of species and their feeding area. Moreover, the seasonal nature of this medium to Moheli Marine Park should be monitored regularly to determine the dynamics and health status. Inventory data seagrass Moheli Marine Park (2003), Investigation dugongs (2004, 2009 and 2010) and overflights PPG (2007) show that areas of Itsamia, of Hagnenguélé of Ndéménani and Damou are the areas most suitable for feeding turtles and dugongs. Beaches for the ecological / mangroves / seagrass / coral reefs are very important for the conservation of coastal areas and their resources. Thus, to maintain good viability of this ecosystem at the park, management objectives are: to ensure the recruitment of stocks of species dependent on coral reefs; to maintain habitat for seagrass meadows and dugong feeding turtles, to establish a zoning Itsamia and Damou (Ouallah Miréréni to Miringoni) to secure these objectives.

c- **The islands:**

With seabirds, primarily, the Masked Booby (Sula dactylatra) Nodis brown (Anous stolidus) and Small Phaeton (Phaethon lepturus), but there is a link with the sea turtles that lay their eggs on the islands (see below). The islands shape the landscape of Marine Park of Moheli. Nioumachoi face, we see six islands and three rocky crags (respectively Meah, Chandzi, Ouenefou, Kanzoni, Dzaha, and magnougni Mbouzi, Mbougo, Foro). The area has a Itsamia island, two crags and two peninsulas (they are respectively Mchaco, and Chikoundou Gnandza, and Mbouzi Bwélamanga). One can also consider the Damou peninsula, between I and Ouallah Miringoni, surrounded by reef portion and seagrass beds. They have a proprietary interest and landscape of the most impressive in the Comoros and admired by ecotourists. September coral sand beaches greet the sea turtle nesting. These geological formations of volcanic origin, coral formations have unique natural features real concentration of wildlife. Besides their importance in traditional fisheries, they are a proven feeding habitat for the hawksbill turtle. Zone of passage for many species of marine mammals (dolphins and whales), manta rays, they are among the most beautiful dive sites in the archipelago. Table corals, large gorgonians and falling property

colonized together a rich underwater fauna. The islands where seasonally sandy areas are colonized by seagrass Halophila ovalis to, are still considered as a transit area for the dugong. The cover is especially important to Ouenefou where it is most anthropized due to human settlement ancient archaeological site of the 19th century leper colony. Heights are occupied by savannas and grasslands of Hyparrhenia, with the slopes of Albizia, few Adansonia (baobab) and clusters of palm trees (Bolsée-Beudels, 1994). Small islands are home to sparsely vegetated euphorbia. Some species of upper beach to bring the beauty of the landscape islands botanical interest to value. Hibiscus (Hibiscus tiliaceus), Callophyllum, Lataniers (Latania sp.), Cassava seaside (Scaveola sp.), Pandanus (Pandanus sp.) And potato to durand (Ipomea pescaprae) are also crucial to species conservation sites of sea turtle nesting (Boullet et al., 2009). The islands are home to seabird colonies of regional importance. (See picture 5.6) Mchaco The island, covered with guano off of Itsamia, is the only site in the Comoros harboring a nest box for a population of about 200 masked booby (Sula dactylatra) and a colony of brown Nodis (Anous stolidus) higher than the thousand individuals. A colony of frigate birds (Fregata ariel and Fregata minor) of up to 200 individuals and straw brown to white in the tail (Phaeton lepturus) attend Magnouni island. Several species of terns intersect in the region of the islands of Moheli Marine Park. Uninhabited and protected from human exploitation (harvesting of timber and sand are forbidden), they form spaces for conservation of species and habitats for which the setting aside of certain coral portions and regulation of their visit greatest. In this sense, sustainability is considered good. However, it must implement management measures to minimize impacts on vegetation, on the portions of the reef and species frequenting the islands. Management objectives are: to maintain the quality of nest boxes; Maintain turtle nesting population.

d- **Dolphins and Whales**:

The waters of the Marine Park of Moheli are rich in cetaceans. More than a dozen species have been observed, some regularly, others rarely. The dolphins are the most common dolphin (Stenella longirostris), the bottlenose dolphin (Tursiops truncatus), common dolphin (Delphinus delphis) and the Pacific humpback dolphin (Sousa chinensis). Are also cited three species of whales: the humpback whale (Megaptera novaeangliae), the right whale (Eubalaena australis) and Bryde's whale (Balaenoptera EDENA). Four pairs of sperm whale (Physeter macrocephalus) were observed by the team of the park in March 2009, off Itsamia. The humpback whale, the most common and most spectacular marine mammal is present in large numbers from July to November at Marine Park of Moheli. This season is the mating and calving, after a long migration from polar waters of Antarctica. The waters of the Marine Park of Moheli, warm and shallow, are most conducive to the Comoros for the period of life migration of humpback whales. The Comoros is a member of the Whaling Convention.

e- Mangroves:

On Moheli, only the Moheli Marine Park is home to mangroves. They hold the funds in the bay south of the island, where they cover about 91 hectares (Gabrié, 2003). Three mangroves are well developed, the most important is that of Nioumachoi (east), then that of Nioumachoi west and finally the Ouallah-Miremani. Other tasks of mangroves, more modest expansion, extend over the edge and side Miremani Hachéli. Marine Park of Moheli, the mangrove is representative of the inter-tropical region of the Indian Ocean. Consists of seven species: Rhizophora maculata, gymnorhiza Bruguiera, Sonneratia alba, Avicennia marina, Lumnitzera racemosa and Ceriops taga Heritiera littoralis. They are always associated with many species of coastal mangrove back (Phoenix reclinata, Hernandia nymphaefolia, Hibiscus tiliaceus, Caesalpinia bouduc). Euclea mayottensi, associated species endemic to the archipelago is not mentioned. It houses a rich and varied birdlife as the dimorphic egret Egretta dimorpha, the gray heron Ardea cinerea, great egret Casmerodius albus, the cattle egret Bubulcus ibis, heron or green Butoides striatus (Louette et al., 2008). They are subject to a levy of wood including traditional construction and firewood. Mangrove crabs are occasionally collected in the direction of the local restaurants. Strongly related to the preservation of coral reefs against sedimentation, they are also forestalled Moheli herbarium Halodule uninervis (Beudard, 2003), substrates for colonizing species, playing a role in reducing sedimentation and food of dugongs and green turtles. Interest in the Marine Park of Moheli creates a monitoring and targeted outreach in a sustainable way to control the disturbances generated. Management objectives are then: to retain their natural structure and maintain their area, to identify their health and to determine their potential for sustainable use. Ecosystem that has good viability Moheli, is a conservation issue for all Comoros whole. (See picture 9)

f- Marine turtles:

Mainly the green turtle nesting beaches on the 45 PMM, but also the occasional hawksbill turtle that lays and feeds on coral reefs. Migratory species emblematic marine turtles frequenting the marine park of Moheli nest on its beaches and 45 forage in seagrass beds and coral reefs. The population of green turtles (Chelonia mydas) or "Nyamba" in shimcomori is among the largest of the western Indian Ocean. Hawksbill turtle (Eretmochelys imbricata) or "male Nyamba" frequent feeding mainly coral. Dermochelys coriacea, Lepidochelys olivacea and Caretta caretta probably cross off the waters of the archipelago. Recent studies on the area Itsamia representing five beaches on 1.5 kilometers identify over 5000 females nesting on this site alone (Bourjea et al., 2009 in prep). They lay eggs throughout the year with peak spawning during the dry season between May and August. Each female carries an average of 3.5 clutches per season. The preferential migration interval is three years. A Itsamia seven years of monitoring (2000-2010) were used to validate an annual growth rate of the population by nearly 25% rate previously never observed worldwide. Herbivorous green turtles graze immature and adults in large numbers on seagrasses Marine Park of Moheli. This site is now

presenting a strong ecotourism where the village community has appropriated its conservation and enhancement, probably at the origin of this strong growth.

Hawksbill turtles lay occasionally on the beaches of Moheli Marine Park but are most frequently found in feed phase on the fringing reef. Species life spans, delayed sexual maturity, the green turtle is globally categorized as endangered by the IUCN (A2bd) while the hawksbill turtle is critically endangered (A1bd). Recognized as the largest green turtle population of the islands anthropised South West Indian Ocean, its viability remains average, linked to various disruptive threats. (Photos 10,11)

g- The dugong:

Once approaching a population of several hundred individuals in the waters of the marine park of Moheli, the dugong (Dugong dugon) or "ngouva" in shicomori is still regularly observed, but in low numbers. This marine mammal, the only representative of the family dugongidés of the order Sirenia feeds on seagrasses as Halophila ovalis or Halodule uninervis, widespread in coastal waters of the marine park (Beudard, 2003). This herbivore was subjected to intensive hunting during the 30 years preceding the creation of the protected area. This fragile species and does not shy down only once every 5 years minimum in good conditions. The main sites were localized to the dugong Nioumachoi and islets of the entire marine area of Itsamia. Become rare, it is periodically observed by fishermen in the area of the marine park. Three surveys conducted in 2004, 2009 and 2010 among fishermen in the area of the marine park) have yielded a count of 9, 13 and 13 cases respectively in 2004, 2009 and 2010. Areas ranging from Hamavouna to Hagnamoida Miringoni to Ouallah and 2, revealed also colonized by seagrasses, are the sites most frequented comments. Recent observations from aerial surveys in March and September 2007 have identified two distinct individuals in the area Itsamia (Beudard et al., 2008). (see picture 12.13)

h-Natural forest:

Natural forest, degraded forest and the river system as a whole constitute an important target for conservation associated marine park because their degradation through human activities that endanger certain marine habitats and species, particularly because of the soil erosion and sedimentation in coastal.

STATE OF THE CHARACTERISTICS AND PROSPECTS FOR THE PROPOSED AREA

The overall point of view, the inventory of the area of the MMP, is more or less good. A decade after its official opening, it responds more effectively to the objectives set by government authorities. In terms of local development and sustainable, PMM, of perspective offers considerable

conservation, protection, employment and other. But, the improvement of the MMP, remains without major threats seen the vulnerabilities of the area caused by:

a- Samples

♣Destruction of beaches:

The exploitation of coastal materials (beach sand, pebbles, beachrock, gravel and river sediments) creates a risk to the conservation of the coastal zone and species dependent. . They are very destructive activity and studies show that between 1950 and 1998, the loss of beaches amounts to 469 ha (1.7 million m3), or 54% of the beaches of Moheli. The studies have shown a levy to 6000 m3 and 12,000 m3 in 1998 and 2003. Since then, urbanization has tripled in Moheli and demand is still growing. The main operating sites within the park are: Nioumachoi, Miringoni, and Moihani Ouallah 1, where the beach has virtually disappeared following his operation for the construction of school Fomboni (source: Nassur Madi, 1996).

♣ The taking of turtle eggs:

One of the major problems in the park is the collection of eggs of sea turtles, despite regulations and supervision.

♣ **Marine resources (excluding fish**) as the abusive exploitation of certain shellfish "Conques (Charonia tritonis), specific predators of starfish eating coral (Acanthaster planci), Turbo (Turbo marmoratus), subject to an important commercial, Helmets (Cipraecassis rufa, Cassis cornuta), Sept. fingers (Lambis sp.) ". The report of the IOC (1997) estimates the collection to two tons / year of sea shells on the Comoros.

b- Poaching:

♣ Poaching of turtles:

Resources preserved Moheli Marine Park are prime targets for poachers. Poaching is one of the biggest threats and concerns for marine turtles, turtle eggs, sea cucumber, and clams. The period 2000-2003 saw the population highly sensitive and systematic monitoring sites. Poaching has become the barometer of good or bad functioning of the Marine Park of Moheli to the communities. The area of the marine park of Moheli has 45 nesting beaches of sea turtles.

♣Poaching of Dugongs:

The Marine Park of Moheli is the only area of the Comoros, where you can still see the Dugong. Currently it is estimated that ten months of the existing population of dugong in the area of

the MMP. Poaching has been practiced in the park area by a dozen people and lasted until 1998 the implementation of the program "Biodiversity Conservation in the Comoros," a government project supported by UNDP. Currently this poaching no longer exists, but it has almost exterminated the population of Dugong.

c- Trample:

Gathering shellfish on the mudflats at low tide (octopus, fish, shellfish), which is still allowed, is very important in the park and leads to the destruction of corals by trampling or by turning the colonies.

d- the coastal developments:

Population pressure on the coast and the direct effects of rising sea levels linked to global changes have led to erosion in some places very strong on the coast. So far, the development was made without prior impact assessment. A Nioumachoi, building a wall on one half of the beach was built in 2003. Now destroyed by heavy swells, it strengthened coastal erosion and degraded the scenic beauty of the site. The coastal urbanization and development can also reduce the attractiveness of the beach for sea turtle nesting.

e- waste pollution by:

Pollution is so far relatively small. They are essentially due to the lack of sewage treatment and septic tanks or latrines. The risks of accidental pollution by hydrocarbons are not negligible because of the important passage of oil tankers off the coast of Comoros, in the Mozambique Channel. A study in 2007 (Use, 2007) on the issue of household waste has identified a proportion of over 90% of biodegradable waste in household consumption of the Marine Park of Mohéli.

II- ASSESSMENT OF THE AREA AGAINST CBD EBSA CRITERIA

CBD EBSA Criteria (Annex I to decision IX/20)	**Description** (Annex I to decision IX/20)	**Ranking of criterion relevance** (please mark one column with an X)			
		Don't Know	**Low**	**Some**	**High**
Uniqueness or rarity	Area contains either (i) unique ("the only one of its kind"), rare (occurs only in few locations) or endemic species, populations or communities, and/or (ii) unique, rare or distinct, habitats or ecosystems; and/or (iii) unique or unusual geomorphological or oceanographic features.			**X**	
Explanation for ranking: the PMM, shelter unique species in their kind, rare and endemic,					
Special importance for life-history stages of species	Areas that are required for a population to survive and thrive.				**X**
Explanation for ranking: the species sheltered in the PMM find in conditions physiological normals encouraging their development and their growth rapids.					
Importance for threatened, endangered or declining species and/or habitats	Area containing habitat for the survival and recovery of endangered, threatened, declining species or area with significant assemblages of such species.				**X**
Explanation for ranking; the PMM of Mohéli is a periodic mating zone of certain mammalian					
Vulnerability, fragility, sensitivity, or slow recovery	Areas that contain a relatively high proportion of sensitive habitats, biotopes or species that are functionally fragile (highly susceptible to degradation or depletion by human activity or by natural events) or with slow recovery.				**X**
Explanation for ranking: in the PMM, some vulnerable species are threatened with disappearance by phenomena anthropiques and natural.					
Biological productivity	Area containing species, populations or communities with comparatively higher natural biological productivity.				**X**
Explanation for ranking: zone favorable working of the ecosystems encouraging the growth of the					

organisms and their capacity of reproduction.					
Biological diversity	Area contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity.				**X**
Explanation for ranking: zone presenting some ecosystems rich in biologic and physionomic diversity					
Naturalness	Area with a comparatively higher degree of naturalness as a result of the lack of or low level of human-induced disturbance or degradation.				*X*
Explanation for ranking: the PPM is in a zone to strong person displacement migratory intern					

SHARING EXPERIENCES AND INFORMATION APPLYING OTHER CRITERIA (OPTIONAL)

Other Criteria	**Description**	**Ranking of criterion relevance** (please mark one column with an X)			
		Don't Know	**Low**	**Some**	**High**
Cultural dimension	Some strong sociocultural impacts that could be factor of preservation on some activities of the park.				**X**
Explanation for ranking: Impacts on the communities. The PMM, present sociocultural aspects that have major impacts in relation with the men and the ecosystems, as well as the exploitation of resources that composes it.					

REFERENCES:

1 - Documents and publications:

a. Plan of management and planning of the marine park of Mohéli 2012 - 2015, 70P.

b. Management of the Aires Marines Protected, 2007: Manual for the region of the ocean Indian Western, UICN,(A1 to k5p)

c. 1988 (DeRham, FAO): Federal Natural park (terrestrial and marine);

d. 1989(Bruton and al, J.L.B. Smith Inst. Ichtiology):

e. National Park of Moheli and peripheral zones (terrestrial and marine);

f. 1994 (Tilot, PNUD/UNESCO): Reserve of Biosphere (marine);

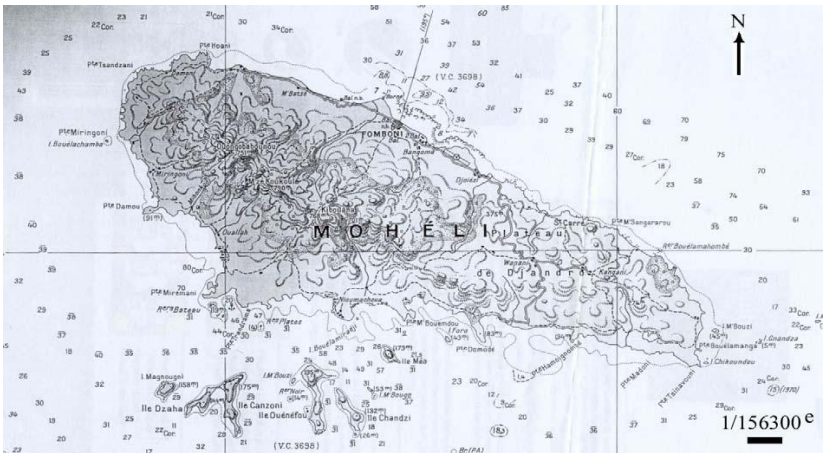
g. 1996 (Ali and Youssouf, UNESCO): National park of Moheli (terrestrial and marine).

2 - Addresses URL:

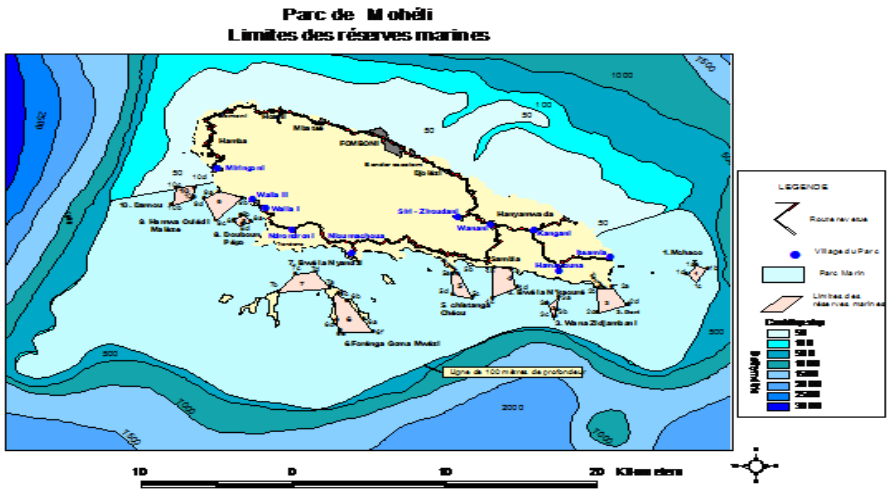
a - http://www.moheli-marinepark.org

3 - Maps:

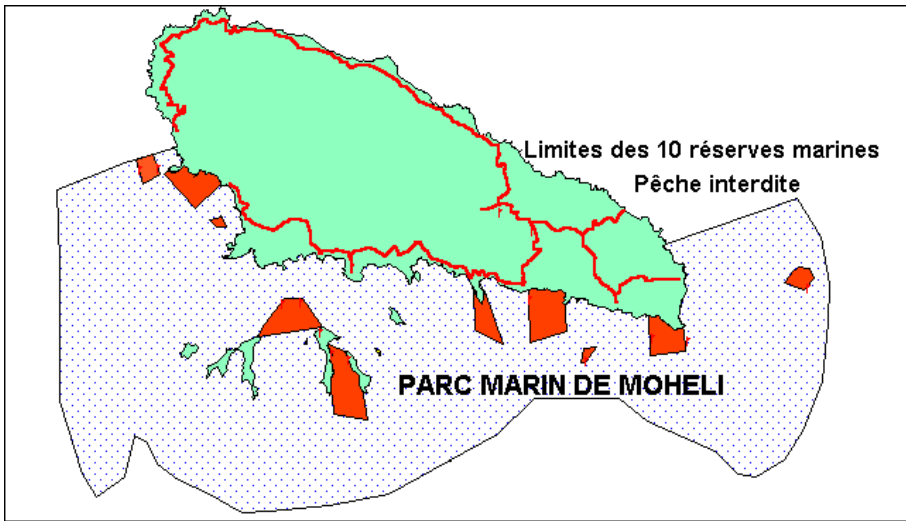
Map1: Localization of the Marine Park of Moheli (Source DGE Comoros, 2002)



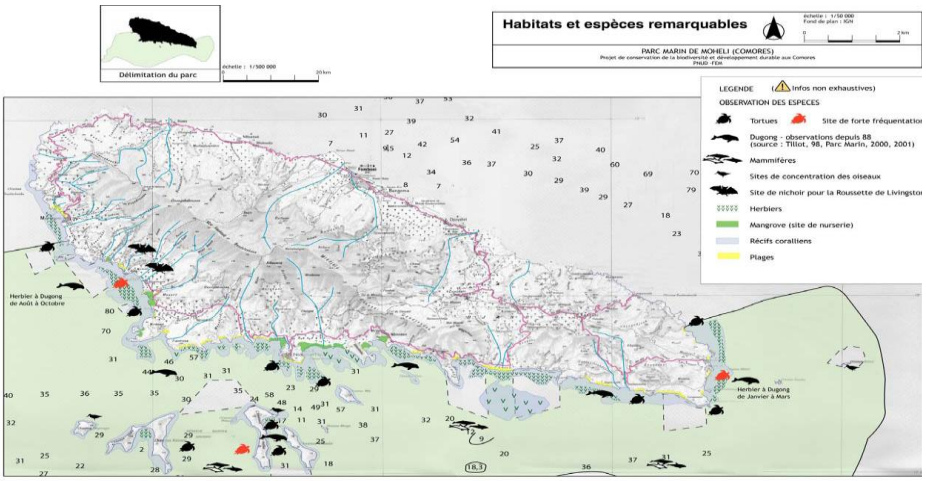
Map 2: bathymetric map of Moheli (SHOM N°6238)



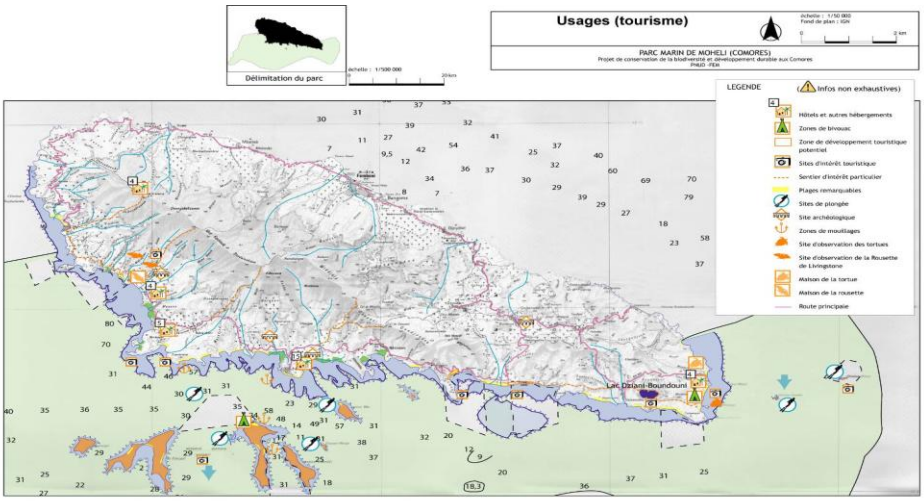
Map 3: Cutoff of the Marine Park of Mohélis and the marine reserves (Dép. SIG2001)



Map 4: Marine Park delimitation Moheli and reserves marines (PA2001)



Map 5: habitats and remarkable species



Map 6: The tourist sites of the Marine of Moheli and in the neighboring forest.

4 - Table:

1_Efficient and distribution of the population in 2003

Mohéli	Efficient
Population	35751
% on the comorian population	6,2
Surface (Km²)	290
Agricultural surface (Km²)	276
Total density	123
Urban population	19581
Farming population	16170

Source: doc Comoros DSRP, 2003

2_Wealth of the avifaune nicheuse and the presence of the comorian endemic birds by island.

	Grande Comore	Mohéli	Anjouan
Number of species nicheuses	**47**	**45***	**39**
Endemic species in Comoros by island	**11**	**7**	**5**
Comorian endemic species unique to the island	**6**	**2**	**2**
Under endemic species by island (including those shared by the neighboring insular countries)	**10**	**9**	**7**

Source: Louette and al., 2008.

3_ Rank of viability of the conservation targets to the marine Park of Moheli

Targets of	Rank of viability
Conservation	
Reefs coralliens	
Marine herbaria	
Mangrove swamps	
Cetaceans	
(Whales and dolphins)	
Dugongs	
Navy turtles	

Correspondence of the colors			
Very Good	**Good**	**Weak**	**Means**

4_Interrelationship of the threats to the targets of conservation of the Marine Park of Moheli while using the software MIRADI

Targets of conservation / Menaces	Reefs coralliens	Herbal marine	Mangrove swamp	Islets	Cetaceans	Dugongs	marine Turtles	Forest, hydrography, fauna associated	Synthesis of the level-headedness of the threats
Poaching, hunt,									
Domestic garbage									
Stamping									
Inshore planning									
Tourism									
Withdrawals									
Déforestation									
Synthesis of the level-headedness of the targets									

Correspondence of the colors			
Weak	Average	High	Very High

5 - Photos and Rights and authorization:

All pictures are protected. All pictures of this document are the property of the PMM.

Picture 1, 2_Faune associated to the reefs coralliens (Islets of Nioumachoi)

Picture_3,4,5_Prairie in Halodule (Itsamia), Colonies nicheuses of masked Madman and brown Nodis and sunset (Nioumachoi islets).

Pictures 6,7_Baleineau of Megaptera novaeangliae (Islets of Nioumachoi) and Dolphin long beak Stenella longirostris (Itsamia)

Pictures 8,9,10_Vue aerial of the mangrove swamp and Tortue overlapped on the reefs coralliens (Nioumachoi) and Dugong Shot in Itsamia..

6 - coordinates of a person revitalize

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