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Madagascar & Western Indian Ocean Programme

MADAGASCAR MARINE PROGRAMME

Sustainable Livelihoods and Poverty Alleviation in the Western Indian Ocean Marine Ecoregion

Background

Within the framework of a partnership between WWF and Swedish International Development Agency (SIDA) for the sustainable development and rational use of the biodiversity, the poverty alleviation appears to be the common denominator. These two organizations recognize that long-term conservation is not possible unless local population is supporting the initiatives and unless environmental and ecological aspects are integrated in the development actions. The Western Indian Ocean is an ecoregion encompassing several large islands (Comoros, Mauritius, Seychelles, La Réunion, Madagascar), and a strong need of marine ecosystem preservation is realized, especially in Comoros and Madagascar, where Marine Protected Areas (MPAs) coverage is low. Coastal populations there depend essentially on fishing activity for their livelihoods and incomes. These communities are highly subject to poverty and the exploitation level tendency is a threat to marine ecosystems.

Objectives

Goal: "To improve small-scale fishing practices in order to conserve and manage the natural fish stocks and coastal ecosystems, and ensures their long-term sustainable use".

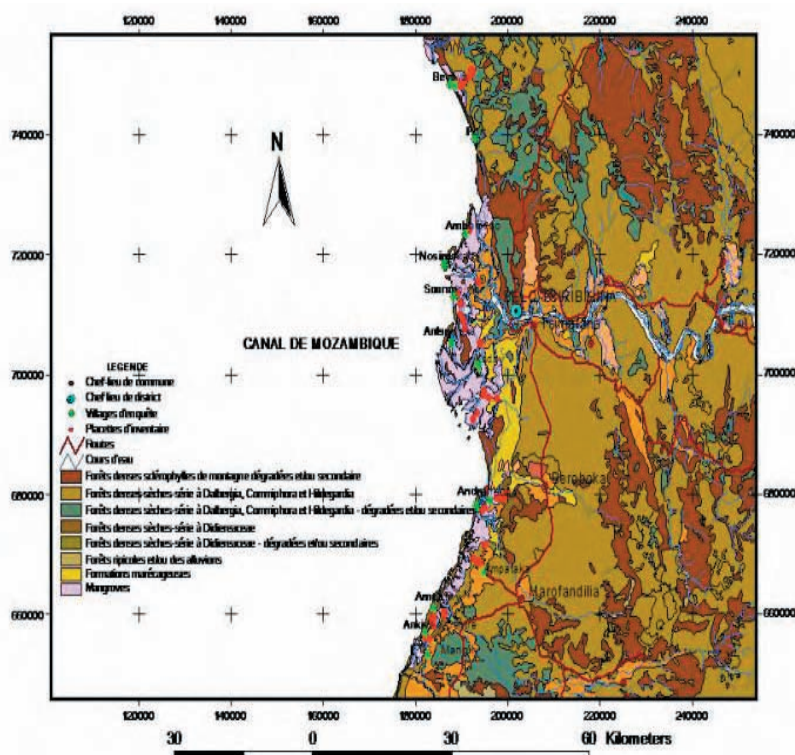
Objective: Strengthen small-scale sustainable fisheries management systems, and improve food security and livelihoods.



Description

The project is oriented towards the development of policies and harvesting methods promoting the marine ecosystems sustainability, and towards the capacity strengthening supporting sustainable development. The project provides a sustainable fishery programme on the basis of recommendations resulting from socio-economic diagnoses, and supports the traditional fisheries for its integration in the market economy. It collaborates with the Regional Fisheries Service (SRPRH) of Menabe for the communication on regulations and laws. Concretely, the project proposes:

- Fishing techniques respecting the environment and innovated halieutic products transformation methods, which could add value to these products and increase fishermen incomes;
- Innovated organizational practices promoting the establishment of forum of discussion between traditional fishermen and key actors of the sector.



Main intervention area: Coast of Menabe Region (Western Madagascar)



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MADAGASCAR MARINE PROGRAMME

Southern Toliara Marine Natural Resource Management

Context

The coastal zone of the southern region of Toliara is home to a rich diversity of biological habitats but coral reef, coastal lagoons, and mangroves, have been severely degraded by human activities. Ecosystems between Anakao and Androka, in the Southwestern region of Madagascar, has been subjected to pressures from coastal people and the Vezo, an ethnic group of traditional fishermen, who manages marine resources by means of taboos and traditional norms. Destructive fishing practices by farmers and/or cattle raisers, who seasonally revert to fishing because of insufficient harvests and lack of other livelihood opportunities, constitute the main pressure to this ecosystem. These two groups of fish resource users (fishermen and non fishermen) are both economically vulnerable.

Project Objectives

The project purpose is: "Sustainable management of living marine and coastal resources in Southern Toliara is established in pilot sites, in collaboration with local fishermen, the Malagasy Fisheries Administration, collectors, retailers and the local populations by the end of year 2011".

The project has four objectives:

- An effective communication system between the key stakeholders is in place and made operational, by the end of year 2009;
- An enabling environment for the sustainable management of traditional fisheries is established in pilot sites, by the end of year 2009;
- Community-based organisations (CBOs) are actively and effectively involved in the sustainable use and management of living marine and coastal resources, by the end of year 2011;
- Small-scale alternative livelihoods activities creating positive socio-economic impacts in pilot sites by the end of the year 2011.

Project Description

The project provides management support to the whole traditional fisheries sector, from fishermen to collectors, intermediaries and sellers, so that more benefits will go to fishermen and they will be able to invest in better techniques and diversify their economic activities, contributing to the development, and the sustainability of the local economy in the long term. The project works with the local authorities and technical services to set up the appropriate framework to ensure that organizational and technical support to fishermen is effective.



Achievements

- On-site workshops at two levels (villages and communes) were carried out and consisted mainly in conducting discussions between the Rodobey members (it is a coordination consortium, gathering only interveners, created to synergize activities and interventions of governmental organizations and NGOs on and around the Mahafaly Plateau) and the local communities. The workshops allowed the establishment of an atmosphere of trust between these two entities, as well as raise awareness on marine natural resource management. This has helped to strengthen fishing communities' commitment to better manage marine resources. Community communication committees were set up in a participatory way, and a communication system (reporting/feedback) between the parties closely involved in the traditional fisheries sector (mainly SRPRH) is currently operational.
- The project has catalyzed and supported the on-site Rodobey meeting in April 2008 in order to revive a better coordination among the on-site interveners in southern Toliara. The 2-day meeting allowed to strengthen collaborations between technical services and conservation and development organizations, to better understand each institution, to homogenize approaches towards the communities and to improve communication between the actors. A start of a general responsibility taking by the local communities and authorities is ongoing towards

marine resources management. Several coastal villages envisage establishing community fisheries reserves and set up their "dina" (local conventions) in order to be able to regulate access and exploitation of their fishing areas.

- After an initial 18 months, an internal mid-term review was conducted to assess the targeting, impact, effectiveness and relevance of the project in relation to its stated purpose, objectives, target groups, partners and other affected parties, but also to discuss opportunities, synergies and ideas to strengthen effectiveness. Both the project purpose and goals are found still very relevant and no significant changes need to be made. The review team found the project well targeted and well received by stakeholders.



Challenges

The project will have to:

- Create broader understanding of the scope of the project vs. the Marine Protected Area (MPA) concept;
- Make sure selection of pilot sites also include criteria relating to traditional structures and the role of women and youth;
- Consider means and ways of effectively linking community fishing activities with suitable markets and commercial ventures;
- Develop database structure for monitoring of ecological and socio-economic trends within the project area (and establish a scientific baseline of marine data);
- Establish exit/reduction strategy and links with Government institutions and other actors for sustainability; and
- Establish ecologically sustainable Private Public Partnerships for additional income generation.

Donors

NORAD (Norwegian Cooperation) / WWF NORWAY from January 1st 2007 to December 31st, 2008. This project will normally last at least 3 years.



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**Madagascar & Western
Indian Ocean Programme**

MADAGASCAR MARINE PROGRAMME

Standard Development for Shrimp Aquaculture in Madagascar

Background

Aquaculture is the fastest-growing food production system in the world. It holds great promise to produce high quality and large volumes of seafood to help answering an increasing demand. As the industry grows, it is critical to minimize the negative impacts of aquaculture on the environment and society. The semi-intensive production method in shrimp culture has proven to be efficient in Madagascar context. It is compatible with the huge areas of salt flats available in the littoral of Madagascar and to the remoteness of sites. It shows low technical and human risks, causes less stress on farmed animals than intensive systems and can have minimal environmental impact. Semi-intensive production methods in Madagascar rely on large ponds, open water pumping, water exchange, low density, and the use of endemic species. Shrimp produced by aquaculture in Madagascar must be farmed within a framework of responsible aquaculture that is safe for the environment and society, and technically adapted to the needs of the species, and furthermore will help the shrimp farms to get out of the current economic difficulties they are facing.

Project Goal

The project goal is to develop a shrimp aquaculture certification program in Madagascar that will help this industry to undertake more environmentally sustainable management aiming for safer production and more secure long-term profits.

The project objectives are the following:

- Draft principles and criteria for certification of shrimp farm in Madagascar are developed;
- Guidelines for diverse criteria are developed and relevant indicators related to the principles are elaborated;
- Issues and trends in shrimp aquaculture, and topics and issues relevant to Best Management Practices (BMPs) for shrimp aquaculture, particularly those that relate to standards development, are monitored; and

Lobbying is carried out to promote the setting up of an appropriate national framework in implementing the certification program.



Project Description

According to the 2004 collaboration agreement between the Malagasy Shrimp Farming and Fishing Association (GAPCM) and WWF, these two organizations have been cooperating on the development of a country-wide set of standards for the shrimp aquaculture industry in Madagascar. Further, it has been decided that the principles developed by the Consortium should be used verbatim in order to have international credibility for the shrimp certification program in Madagascar. These principles are the International Principles for Responsible Shrimp Farming created by the Consortium on Shrimp Farming and the Environment (WWF, Food and Agriculture Organization of the United Nations, World Bank, Network of Aquaculture Centres Asia-Pacific, United Nations Environmental Programme). They have been vetted internationally and form the basis for WWF's work on shrimp aquaculture (<http://www.enaca.org/>). In order to move towards the adoption of better practices to reduce negative impacts from shrimp aquaculture industry in Madagascar - the basis for an eco-labelling programme - GAPCM and WWF, developed a joint strategy. It is worth to mention that the certification program will concern just the species *Penaeus monodon* (Black Tiger) since this is the most common breed in the country, and since it would require a considerable, and not profitable, amount of work to establish a program for more than one species.

Achievements

The main achievement of the project for the reporting period lies in the holding of two workshops of Shrimp Aquaculture Dialogue (ShAD), organized by the Aquaculturists and Shrimp Farmers of Madagascar – (Groupement des Aquaculteurs Pêcheurs de Crevettes de Madagascar -GAPCM) and WWF, along with support from the French Agency for Development (AFD), to develop the standards for responsible aquaculture of *Penaeus monodon* shrimp, which took place in Antananarivo, Madagascar, on April 12th and 13th, 2007, on June 3rd and 4th, 2008. The potential relevant indicators by a transparent and stakeholder-driven approach were identified. More than 60 people participated to each of the Dialogue, all the GAPCM members were heavily represented, and a Steering Committee (SC) who will undertake the responsibility of bringing the project to term, has been formed. Between the 2 workshops, a working expert group was set and endeavoured in improving the principles and criteria and developing indicators to be presented during the 2nd dialogue. Significant progress was made on improving the principles and criteria for certification, the identification of the relevant key indicators, for which quantitative standards have to be developed. Moreover, a plan for additional activities necessary for developing a certification program was formulated during the meetings. The broad and strong promotion through the media of these workshops will certainly lead to a better reconsideration of the shrimp aquaculture sector from the Government.

Challenges

The Steering Committee needs now to consolidate all the command and input brought during the 2nd workshop held in Antananarivo. As this work will be completed, the SC will have to organize itself to keep on moving forward in this process to identify key indicators and standards. Those will be then discussed at a global Steering Committee level with the other region.

Concretely, the challenges are to:

- Continue in setting consistency between the ONE environmental measures and the certification criteria and homogenize all aquaculture operators' environmental measures;
- Continue in developing guidelines for diverse criteria;
- Lobby to make the Malagasy legislation on the use of antibiotics in the shrimp industry (at ministerial level) clarified;
- Elaborate guidelines for promoting the use of recycled materials and/or produced from sustainable sources;
- Develop standards and refine key indicators.

Funding

WWF US – from December 1st, 2003 to December 31st, 2004 (Project name: aquaculture certification and regulatory structure in Madagascar).

WWF US – from December 27th, 2006, to da



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Promoting Sustainable Livelihoods in the Madagascar Western Mangrove Region

Background

Madagascar has a high surface area of mangroves in the Eastern African region and many of the largest single blocks in this region. Mangroves in Madagascar are the breeding grounds for several globally threatened species, including the Madagascar teal (*Anas bernieri*, World Conservation Union (IUCN) threatened status Endangered, EN) and the Madagascar fish eagle (*Haliaeetus vociferoides*, Critically Endangered, CR).

Mangroves play a critical role in maintaining species and vital ecological processes. They are breeding grounds and nurseries for a wide range of commercially and artisanally important fish, crustaceans and mollusks which are important to both numerous local western coastal communities and the country's fisheries, one of the primary industries in Madagascar.

Traditionally, mangroves have not been exposed to excessive timber harvesting or clearance for agriculture. However, today the pressures have greatly increased as terrestrial forests dwindle, agricultural lands are fully occupied elsewhere leading to migration into once undisturbed mangroves. The reduction in terrestrial forest cover has led to more and more harvesting of mangrove timber which, at the same time, is increasingly prized for its construction versatility, value as charcoal and resistance to parasites. The search for new agricultural lands has led to locally extensive clearing of mangroves, increasing the risks of negative ecological and humanitarian impacts through flooding as sea levels rise and cyclones appear to be becoming more severe and/or frequent due to climate change.

Objective

The purpose of the project is to develop a proposal that will promote sustainable livelihoods based on sound management and conservation of the unique mangrove ecosystems of western Madagascar. The project builds on the model developed by WWF and SIDA (Swedish International Development Agency) in the Tsiribihina Delta as part of the former SIDA-WWF Strategic Framework agreement and intends to expand the lessons learned from this former project to the populations of the mangrove areas along the western coast of Madagascar.



Project description

The project has developed the following strategies for its development:

- Integrated mangrove management plans that help to ensure sustainable use and protection.
- Community-based natural resources management and diversification of livelihood activities.
- Increased involvement of regional and communal authorities.
- Strengthened sustainable community-based commercial and subsistence,
- Utilization systems that ensure local resource needs and improve incomes.
- Development of communal and local tax systems based on community interests.



Achievements so far

The project has been designed to develop a proposal to improve the livelihoods of Malagasy west coast communities through innovative conservation and sustainable management of the mangroves and associated ecosystems. Two Regions are targeted by the project: Menabe (Southwest) and Melaky (West). So far, we have achieved the following:

- Information collecting and exchange with stakeholders: we have approached all actors in the region to share views and early vision in terms of mangroves planning and conservation. Those actors included regional and local authorities, regional representatives of the Ministry of Environment, Forests and Tourism and the Ministry of Agriculture, Livestock and Fisheries, NGOs (Durrell and The Peregrine Fund) and other local communities (fishermen and fish collectors).
- Site visit to collect preliminary information: the project is focussing its intervention in two regions: Menabe in south-western, precisely in the Tsiribihina river delta areas and Melaky in western Madagascar. WWF has been an active actor in Menabe but has recently set up a project on marine turtles in Melaky. A site visit was conducted to this latter to assess the context of the region and collect preliminary information for the project development.

Challenges

We will continue to work on the following issues:

- Increase the involvement of regional and communal authorities and local communities in supporting the project development.
- Go in depth and improve the knowledge of the context: the Regions (Menabe and Melaky), their natural resources and current management. The following items will be emphasized:
 - o Important additional information on natural resources and their management, including land use management;
 - o Roles of stakeholders, particularly structured communities through the "community management of natural resources" already in place;
 - o Other potential opportunities to improve livelihoods of local people.
- Develop and draft the project proposal.

Donors

SIDA (Swedish International Development Agency) via WWF International.



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Achievements/Impacts

Success of the project consists in improving practices used by traditional fishermen by adopting new capture techniques and fish product processing. Risks at sea, for the fishermen as well as the possible damages to their engines, have been gradually reduced. The new capturing techniques have also allowed the maintenance of natural habitats. One hundred and nineteen fishermen in 14 villages have received training on improved methods and processing techniques of halieutic products.

Participatory and integrated planning of fishing activities at a small-scale within the region of Menabe constitutes also a success to the project. The report on research carried out on small-scale fishery was restituted and discussed by the extended members of CRÉPA (Fishing and Aquaculture Regional Committee) in order to derive themes to be defended. The Regional Director Plan for small-scale fishery has been refined. This plan, already submitted to the regional authority, is currently being carried out. Therefore, a tripartite agreement between CRÉPA, Louvain Développement, and WWF has been established.

The region and the actors are convinced of the necessity of integrating fishery and the maintenance of the marine ecosystems to be part of the regional development strategy. A session to introduce the activities of partners operating in the terrestrial Protected Area of Menabe Antimena and an exchange visit regarding the co-management with OPCI (Public Organization for Intercommunal Coopération) of Betioky has been organized.

A traditional fisher with a positive experience with the support of a microfinance service and having received the action-based training methods and techniques provided by WWF / Consortium Lalanda, has finished the communication and the witness from fishermen in 12 villages in order to arouse their interest in joining the micro finance system to facilitate the adoption of methods and techniques improved.

Recognizing the relevance of the project in terms of action- training- research, regional leaders and ANGAP seek the implementation of these activities in the southern area of Morondava.

Challenges

- Finalize action-training-research, specifically evaluation and retraining;
- Build on results acquired on new methods and techniques of fishing and processing of halieutic products to promote buy-in of these practices by local communities;
- Bring significant support to all activities related to the re-education on the maintenance of marine ecosystems and fishery in the area;
- Implement, follow-up and evaluate accompanying activities destined to improve the standard of living of fishermen (micro-finance, crab fishing, nutrition, alphabetization...), and
- Disseminate the best practice in the southern zone of Menabe.

Funding

SIDA – from January 1st, 2005 to December 31st, 2008



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8. 環境質問票と回答

The Preparatory Study
for
The Feasibility Study on Toamasina Port Development in the Republic of Madagascar
—Questionnaire related to EIA—

JICA Study Team

<Legislative and Regulatory Issues>

1. We would like to get MECIE (*La Mise en Compatibilite des Investments avec l'Environnement*) in English¹.

公式の英訳ではないが貸与する。(別添資料参照)

2. What is the official name of Ministry in charge of Environment and EIA, *Ministry of Environment, Water, Forests and Tourism* or *Ministry of Environment, Flood Control and Forestry*?

2週間前に Ministry of Water が新設されたため、正式名称は Ministry of Environment, Forests and Tourism に変更になった。水省は、国として安全な飲料水の供給に力を入れるために別組織になった。Tourism が環境省に含まれているのは、eco-tourism 重視の政策からである。

3. We would like to get an organization chart of Ministry in charge of Environment.

組織改変があったばかりなので、新しい組織図はない。古いものを提供する。(別添資料参照)

4. We would like reconfirm which should be conducted for the project of Toamasina Port Expansion, EIA or PREE (*Program of Environmental Engagement*), and what the reason is. EIA (仏語で EIE; Etude Impact Environnemental)が必要である。理由は、①事業規模が大きい、②対象地域が環境保護区域に指定されている、の2点である。その規定は、MECIEにある。

5. Which is correct in English, EIA (*Environmental Impact Assessment*) or EA (*Environmental Assessment*) in the Republic of Madagascar? What is EIE?

英語では、EIA であるが、仏語では EIE である (NO.4 参照)。EA と表記する場合は、EIA 以外に一連の手続きや環境管理計画のモニタリングも含む広い意味で使用している。

6. Who carries out a screening of the project of Toamasina Port Expansion in DEE

¹ The Setting in Compatibility of the Investments with Environment (in English)

(*Department of Environmental Evaluation*) of ONE (*Office National pour l'Environnement*)?
最終的には DEE ではなく ONE の局長 (Director General) が実施する。

7. Could you show us organization charts of DEE (7 members) and ONE (64 members)?

組織図はないので口頭で説明する。(別添参照)

8. Should the project of Toamasina Port Expansion categorized into A (with significant or severe impact) or B (with moderate or some impact)?

環境影響の大きさによって EIA か PREE (英文のスクリーニング表では、ECP; Environmental Commitment Program と英訳) の分類はあるが、カテゴリー分類という概念はない。事業の種類、規模、場所によってどちらを実施するかは決っている。

9. Who will finalize TOR (*Terms of Reference*) of EIA for the project of Toamasina Port Expansion in DEE or CTE (*Committee for Technical Evaluation*) of ONE?

TOR にステークホルダーの意見を反映するという制度はない。CTE は、EIA の報告書が提出されてから組織化されるものであり、TOR 段階では TOR に対する関係省庁の「意見を聴取する」だけである。TOR の検討期間は 15 日間であり、ONE で最終決定される。現在進行しているプロジェクトは 20 件程度あり非常に多忙である。

10. Could you show us provisional members of CTE for this project? What kind of department of ministries the committee members are sent from?

①環境省、②運輸省、③ANGAP、④農業水産畜産省、⑤公共事業省の参加が見込まれる。

11. Could you show us the reports of public hearing and stakeholder meetings for a draft TOR evaluation and EIA report evaluation, including a venue, participant, and the way of publicity, participation, explanation of project, question & answer and collection of opinion, etc.?

詳細は Ambatovy のレポートの Volume H にある。

12. Could you explain the way how to collect stakeholders' opinions and reflect them to TOR of EIA?

既述したとおり (NO.9 参照) TOR にステークホルダーの意見を反映することはない。

13. Could you show us existing EIA reports for port construction project and/or other projects?

Ambatovy 関連以外に港湾関係の EIA の実施例はない。

14. We would like to get a list (in English) of environmental evaluation items for Screening.
別添資料参照。

15. Could you show us a sample of Screening for port construction project? (in English)
他に港湾の事例はない。

16. Could you show us a sample of TOR for port construction project? (in English)
Ambatovy の例が Volume H にある。

17. We would like to know the whole procedure of EIA and how many months it takes to finish it. Although they needed 8 months (May to December, 2006) to get permission of EIA in case of Ambatovy, we understand you can generally get permission in 120 days after submission of EIA report based on the regulation. Is it correct?

Public hearing がなければ、On-site consultation と Public survey を合わせて原則として 60 日（2 ヶ月）で承認が得られるが、Public hearing が行われる場合は 120 日（4 ヶ月）を要する。

18. We would like to get the following Acts and Decrees in English.

- 1) Act NO.90-033, NO.2004-015 Charter of the Environment
- 2) Act NO.95-017 Tourism Code
- 3) Act NO.98-029 Water Code
- 4) Decree NO.95-607 (Revision of NO.95-312) ONE (Office National of Environment)
- 5) Decree NO.99-954 (Repeal of NO.95-377)
- 6) Decree NO.04-167 (Preliminary evaluation of EIA)
- 7) Decree NO.2001-6830 (Public participation)
- 8) Decree NO.97-822 CNE (Council National for the Environment)
- 9) Decree NO.98-962 Minister of Environment
- 10) Inter-ministerial Order NO.97-4355 Sensitive Area
- 11) Inter-ministerial Order NO.2001-6830 Public Consultation Process
- 12) Closure NO.97-4743 MINENV CTE (Committee for Technical Evaluation of EIA)
- 13) Act NO.99-028 consolidated Maritime Code
- 14) Act or Decree for Waste
- 15) Act or Decree for Air Quality
- 16) Act or Decree for Forest
- 17) Decree NO.464-2003 Classification of water area and waste water discharge

18) Decree for Water Quality

19) Act or Decree for resettlement of local people and land acquisition for public undertaking (NO.63-023, NO. 63-030)

提示できるのは、4, 5, 6, 7, 10, 11 だけである。

<Socio-economic Issues>

19. We would like to get the following document and/or information;

1) Information of fishery in Toamasina

SPAT 及び漁業組合から情報提供があった。(協議記録参照)

2) Traffic volume on the main roads in Toamasina

トアマシナ市から概況の情報を得た。(協議記録参照)

20. Are there any recreation areas or cultural heritages in Toamasina?

特にはない (SPAT)

21. Is there any minority race or living indigenous people in Toamasina?

18 種族が居住しているが少数民族とは言いがたい。プロジェクトの実施で特に影響を受けるといったことはないと考えている。(SPAT 環境担当)

22. Could you show us Environmental Standards or Criteria of Air Quality, Water Quality, Noise Level, Sediment, Soil, Odour and others in the Republic of Madagascar? (Decree NO.99-954 Article 9) If not, is it possible to adopt World Bank Standards to this port expansion project? Do you recommend which standards you should apply to assess the impact predicted in EIA report, WB, USEPA, EU or WHO?

「マ」国には環境基準がない。従って、国際基準を適用するが、事業者が TOR の中で適切と思われる基準を提案して ONE と協議する方法が良いと考えている。

23. Could you show us Emission Standard of Air Pollutant and Noise, Effluent Standard of Water Pollutant and others in the Republic of Madagascar? (Act NO.90-033)

工場からの排水基準だけが設定されている。大気や騒音については設定されていない。

24. Could you show us NGOs because we would like to know their opinions on this project?

(次官からの推薦あり。その他 詳細は協議記録を参照)

25. Do you think local people might be re-settled involuntarily due to this port expansion project in Toamasina?

まったくない。

26. Do you think local people might lose their own private lands due to this project?

まったくない。

27. We would like to know compensation system for involuntary resettlement and land acquisition owing to infrastructure improvement project. Do you have any case in which involuntary resettlement has been monitored?

2008年2月、土地収用はWBのシステムに準じて行う旨、説明があったが、実際にいつ実施されるかは不明。実施されれば、不法に定住している場合であっても土地収用に際しては補償金が支払われる。

28. Is it possible to open the result of EIA to the public?

いずれも公開しているのでまったく問題ない。

29. We hear that in September 2007 the workshop was held to discuss mitigation measures for environmental protection for Ambatovy Project and more than 60 members participated from local administration, Universities, NGOs, local residence and institutes. Could you show us the content of discussion?

2007年ではなく、2006年である。Ambatovy Projectの報告書に記載されている。

30. We hear that in Ambatovy Project alternatives were discussed and Mole B was selected. Do you remember what kind of environmental problems were pointed out for Mole C in that Project?

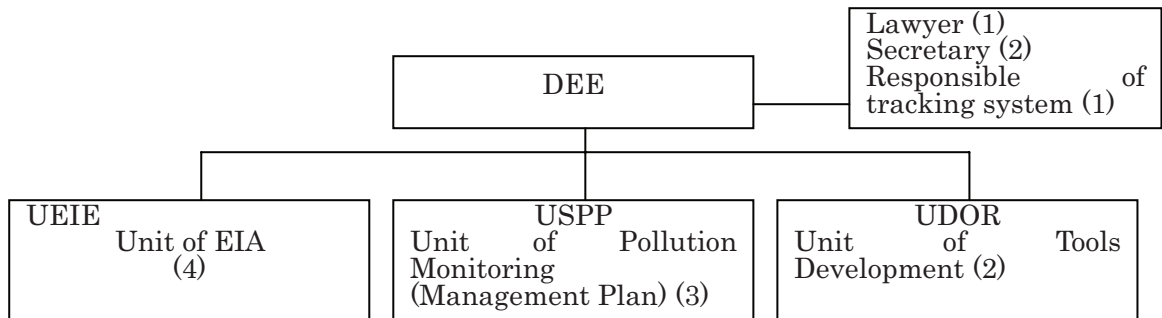
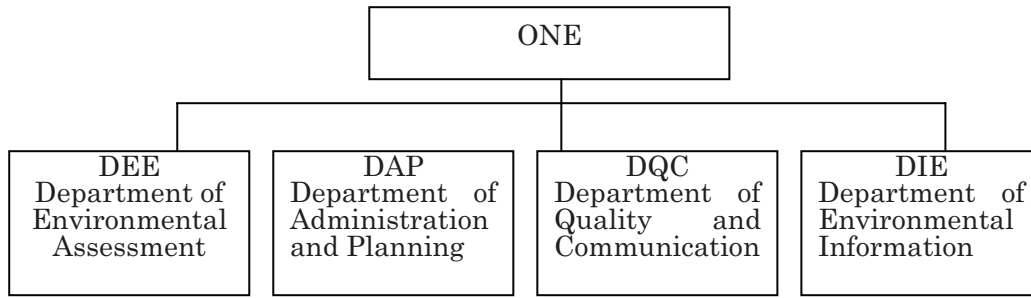
そういう議論はなかったように思う。記憶していない。

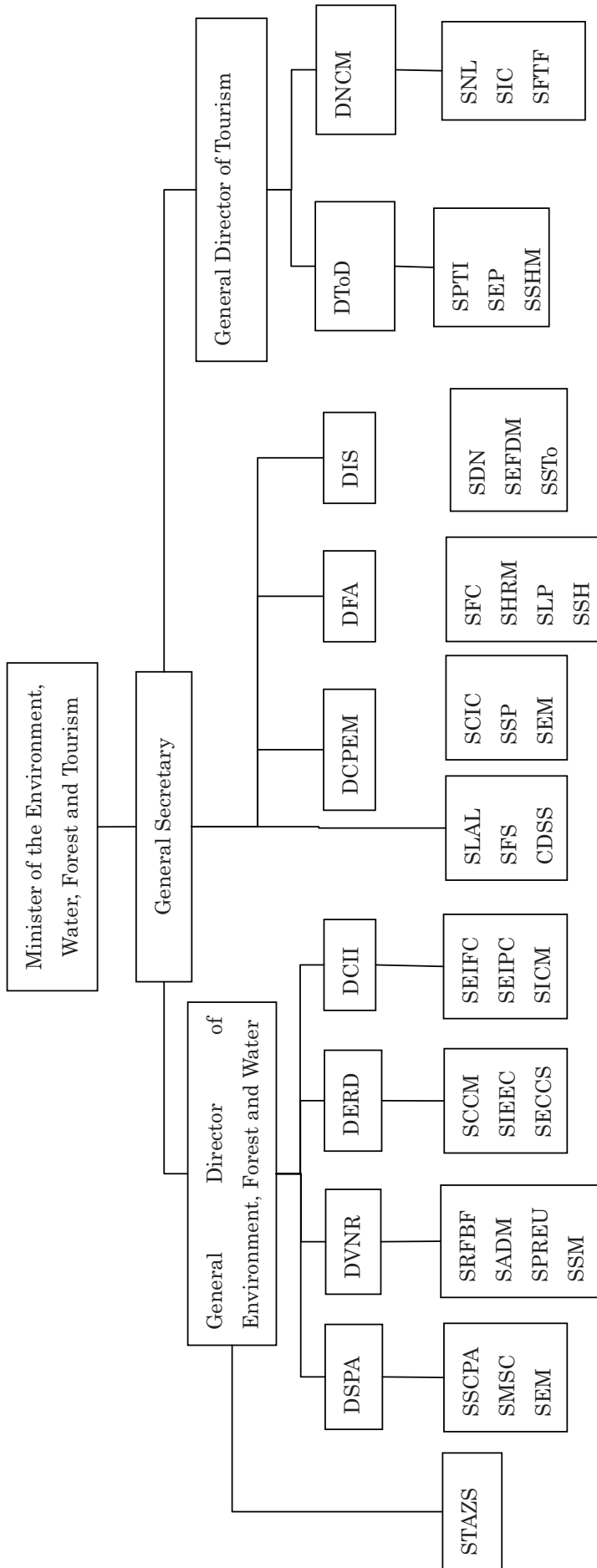
31. Can you conduct EIA by yourselves (APAT) for this Port Expansion Project? Are there any problems concerning technology, timing or budget?

SPATにはそういう技術的蓄積も予算的な余裕もない。

32. Could you introduce and show us some consultant companies who can conduct EIA for port construction project in your country because we would like to visit them to see their experience, personnel, facilities, equipment and technology? What about SOMEAH, CNRE, SOGREAH or Baird?

SOMEAHを推薦する。





SSTAZ : Service of Support Territory Arrangement and Zoning
 DSPA : Direction of System of Protected Area
 DVNR : Direction of Valorization of Natural Resources
 DERD : Direction of Environmental Reflex Development
 DCII : Direction of Control and Improvement of Integrity

SSCPA : Service of Study and Creation of Protected Areas
 SMSC : Service of Management and Support of Community
 SEM : Service of Ecological Monitoring

SRFBF : Service of Reforestation and Fight against Bushes Fires
 SADM : Service of Adjudication and Delegation of Management
 SPREU : Service of Promoting Rational Energy Utilisation
 SSM : Service of Species Management

SCCM : Service of Climatic Change Monitoring
 SIEEC : Service Information Education and Environmental Communication
 SECCS : Service of Environmental Cell and Collectivity Support

SEIFC : Service of Environmental Inspection and Forest Control
SEIPC: Service of Environmental Impact Assessment and Pollution, harness Control and preventing
 SICM : Service of Investigation and Complaining Management

SLAL : Service of Legal Affair and Litigation

DToD : Direction of Tourism development
 DNCM : Direction of norm control and monitoring

SPTI : Service of Promotion of Tourism Investment
 SEP : Service of Ecotourism Promotion
 SSHM : Service of State Hotel Monitoring

SNL : Service of Norm and labelization
 SIC : Service of Inspection and Control
 SFTF : Service of Fight against Tourism Flail

SFS : Service of Financial Sustainability
CDSS : Cell of Deconcentrated Service Support

DCPEM : Direction of Coordination, Programming, Evaluation and Monitoring
DFA : Direction of Finance and Administration
DIS : Direction of Information System

SCIC : Service of Coordination and International Convention
SSP : Service of Study and Programming
SEM : Service of Evaluation and Monitoring

SFC : Service of Finance and Comptability
SHRM : Service of Human Resources Management
SLP : Service of Logistic and Patrimony
SSH : Service of Social Health

SDN : Service of Development and Network
SEFDM : Service of Environmental and Forest Database Management
SSTo : Service of Statistic of Tourism

9. 収集資料リスト

収集資料一覧表

分野	番号	名称	サイズ	形式	入手先・発行元	備考
港湾施設 ・自然条件 社会環境配慮	1	潮位表2008年	A4版4枚	コピー	SPAT	
	2	海図1968年	A3版分割4枚	コピー	SPAT	
		MECIE(仏語)		ファイル	ONE	
		MECIE(英語)		ファイル	ONE	
		Portant définition et délimitation des zones sensibles		ファイル	ONE	
	RAPPORT DE SYNTHÈSE DES RECOMMANDATIONS RELATIVES AUX COMPOSANTES MINE ET PIPELINE -AUDIENCE PUBLIQUE A MORAMANGA-			ファイル	ONE	
	DECRET N° 2008-600 Modifiant et complétant certaines dispositions du décret n° 95-607 du 10 septembre 1995 portant refonte du décret n° 95-312 du 25 avril 1995 portant création et organisation de l'Office National pour l'Environnement			ファイル	ONE	
	Directive générale pour la réalisation d'une étude d' impact environnemental à Madagascar			ファイル	ONE	
	DECRET N° 95-607 portant refonte du décret n°95- 312 du 25 Avril 1995 portant création et organisation de l'Office National de l'Environnement			ファイル	ONE	
	DECRET N° 2003-439 nstituant une Cellule environnementale au sein de chaque Ministère			ファイル	ONE	
	DECREE N°6830/2001 Settlement of the measures and conditions for the public participation in the environmental assessment			ファイル	ONE	通訳が英訳
自然環境保全	1	マダガスカル保護区システム	232 KB	pdf	CI コンサベーション・イン ターナショナル	2007年6月作成
	2	WCS活動紹介パンフレット	2.14MB (20ページ)	pdf	WCS	英語版
	3	WCS活動ポスター	4.23MB (1ページ)	jpg	WCS	
	4	海洋保護ネットワーク	1.0MB (2ページ)	pdf	WWF CI	インド洋全体のプログラム
	5	WWF海洋プログラム	4.33MB (8ページ)	pdf	WWF	

