REPOBLIKAN'I MADAGASIKARA
Fitiavana - Tanindrazana - Fandrosoana

BUREAU NATIONAL POPs

Brief description of the necessary arrangements identified for the administration of the integrated electronic toolkit of Articles 7 and 15 at the national level after the end of the project

August 2022

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Introduction

Persistent Organic Pollutants (POPs) share four characteristics that make them particularly dangerous: (i) they are toxic and persistent, (ii) resistant to the usual processes of product decomposition, (iii) they accumulate in the fatty tissues of human beings humans, marine mammals and other animals and are transmitted from mother to fetus, (iv) they can travel great distances by air and ocean currents.

Even in small amounts, POPs can wreak havoc in human and animal tissue, damaging the nervous system, causing cancers and diseases of the immune system, and disrupting the productive and developmental system.
Aware of these dangers associated with POPs, Madagascar has ratified the Stockholm Convention which is designed to eliminate and severely restrict the production and use of a group of pesticides and chemicals and ensure effective chemical management of POPs without danger to the environment and oppose the development of new chemical products whose characteristics would be similar to those of POPs.

As a country party to the Stockholm Convention, Madagascar has the obligation to communicate all information relating to the implementation of the said convention to the Secretariat of the convention. Thus, the country submitted its national implementation plan in 2008 and its updated plan in 2014. It also submitted its first, second, third and fifth national reports respectively on 31 July 2007, 22 October 2010, 28 April 2016 and in 30 August 2022.

In order to facilitate and improve the transmission by Madagascar of information relating to the measures taken at the national level within the framework of the implementation of the Stockholm Convention on POPs, the United Nations Environment Program accompanied the countries in the implementation of the project "Integrated CS toolbox to improve the transmission of information under Articles 07 and 15 of the said convention".

This report presents the necessary arrangements identified for the administration of the Articles 7 and 15 Integrated Electronic Toolkit at the national level, developed within the framework of the UNEP/GEF project entitled "Stockholm Convention Integrated Toolkit for Improving transmission of information under articles 07 and 15".

Institutional arrangements

The institutional arrangements needed to administer the integrated Articles 7 and 15 electronic toolkit should be able to support the national inventory team in collecting, assessing and documenting quantitative and qualitative data needs, as well as ensuring its continuity and integrity and to promote the institutionalization of the NIP.

There are nine main sources of data and information on chemicals/waste management in Madagascar, namely:

- The Ministry in charge of the Environment, which hosts the focal points of the Stockholm, Basel and Rotterdam conventions and which collects data and information relating to the submission of the national implementation report at the national level of

the Stockholm convention ; which holds data on hazardous waste and data on chemicals treated under the Rotterdam Convention.

- The Ministry in charge of Industry
- The Ministry of Health for data on healthcare waste and medical waste
- Chamber of Commerce and Industry
- The General Directorate of Customs which holds data on exported goods, chemicals and waste
- The Registration Center which is the competent authority for vehicle registration
- The Department of Plant Protection attached to the Ministry in charge of Agriculture
- The Electricity Production and Distribution Company (JIRAMA)

Ministry of Environment and Sustainable Development (MEDD) - www.medd.gov.mg

The Ministry of Environment and Sustainable Development coordinates the implementation of international conventions and agreements relating to the management of waste and chemical products ratified by the Republic of Madagascar. It also contributes to the collection and dissemination of information on waste and the management of chemicals, including in the transboundary context, and ensures public access to information.

The Ministry in charge of Industry through the environmental unit within it which holds the environmental data of the legally listed industries, including the textile industries***.***

The Ministry of Health ensures the implementation of the national policy for the management of waste from healthcare establishments and the safety of injections. For this, it ensures the collection of data and information on healthcare waste. The Ministry of Health assists the Ministry of Environment in the establishment of the national report on DDT.

Chamber of Commerce and Industry of Madagascar

As part of their missions, the Chamber of Commerce and Industry has among its mandate to collect information concerning economic activities and problems; participate in the implementation and monitoring of national, regional and municipal development plans; issue and/or endorse certificates of origin of goods, certificates and other documents necessary for the purposes of internal and external trade; advise on the issuance of quality label certificates; give opinions on the urban master plan.

Directorate General of Customs. www.customs.gov.mg

The customs services control and approve the import of chemicals and articles on the territory of the Republic of Madagascar. They contribute to the protection of citizens and the environment by fighting against illicit trafficking. The General Directorate of Customs is one of the key partners of the Ministry of Environment and Sustainable Development in the implementation of international conventions relating to the environment ratified by the country.

The Department of Plant Protection attached to the Ministry of Agriculture, which is responsible for implementing State policy in terms of the regulation and control of plants and phytosanitary quarantine, including approval imported chemicals

The Electricity Production and Distribution Company (JIRAMA), holder of the majority of

transformers in Madagascar, JIRAMA holds the database on PCB oils and PCB transformers. It is the strategic partner of the Ministry of the Environment within the framework of the management and elimination of PCB waste and transformers contaminated by PCBs.

Private sector

The most important economic activities linked to data on POPs are the energy sector, the production of plastics, construction materials, transport (air and rail), textiles, waste recyclers. It should be noted that companies were not always aware of the raw materials or products used.

Administering Quantitative Data Requirements for the Articles 7 and 15 Integrated Electronic Toolkit

Evaluation of POP pesticides (Annex A, part I) (Import)	National Chemicals Management Profile National POPs Profile Department of Plant Protection (DPV)
Evaluation of PCBs (Annex A, part II) (Import, Use)	PCBs Database
Assessment of POPs-PBDEs (Annex A, part IV and part V); HBB (Annex A, Part I); HBCD (Annex A, Part I and Part VII) (Import, Use, Recycling, Alternatives)	Import database Register of companies at the time of their creation (INSTAT) National Chemicals Management Profile National Profile of POPs,
PCN Assessment (Annex A, Part II) (Import, Use, Alternative)	Import database
DDT Assessment (Annex B, Part II)	National report on DDT
Evaluation of PFOS, its Salts and PFOSF (Annex B, part III)	Import database Economic operators
Assessment of releases of chemicals, produced unintentionally (Annex C)	Customs Service/Imports of Goods Database Commune statistics Environmental Dashboard, UPOPs inventory report (open burning project/MEDD/BNPOPs/UNIDO) National inventory report / preparation of national communication on climate change (MEDD / BNCCREDD / UNEP)

Additional Provisions for Quantitative Data Requirements

- For each data set – establishment of pre-defined templates according to the guidelines in the NIP Toolkit structure document for the automatic generation of the necessary data and information;
- For inventories of POPs in articles and releases - documentation and communication of the origin of the methodology used, activity data sets and factors used to estimate POPs in articles or releases from uPOPs so that the future inventory of the national team can refer to the model filled in for each POP, what information was collected, how the data was obtained and what calculation methods were used, what assumptions were made and reproduce the estimates.
- For inventories of releases of chemicals, produced unintentionally, documentation and communication of the methodological approach including among others:

(i) Field visit to collect the various information relating to landfills: GPS coordinates of the landfill site, estimate of the area occupied, waste management method, particularly burning;

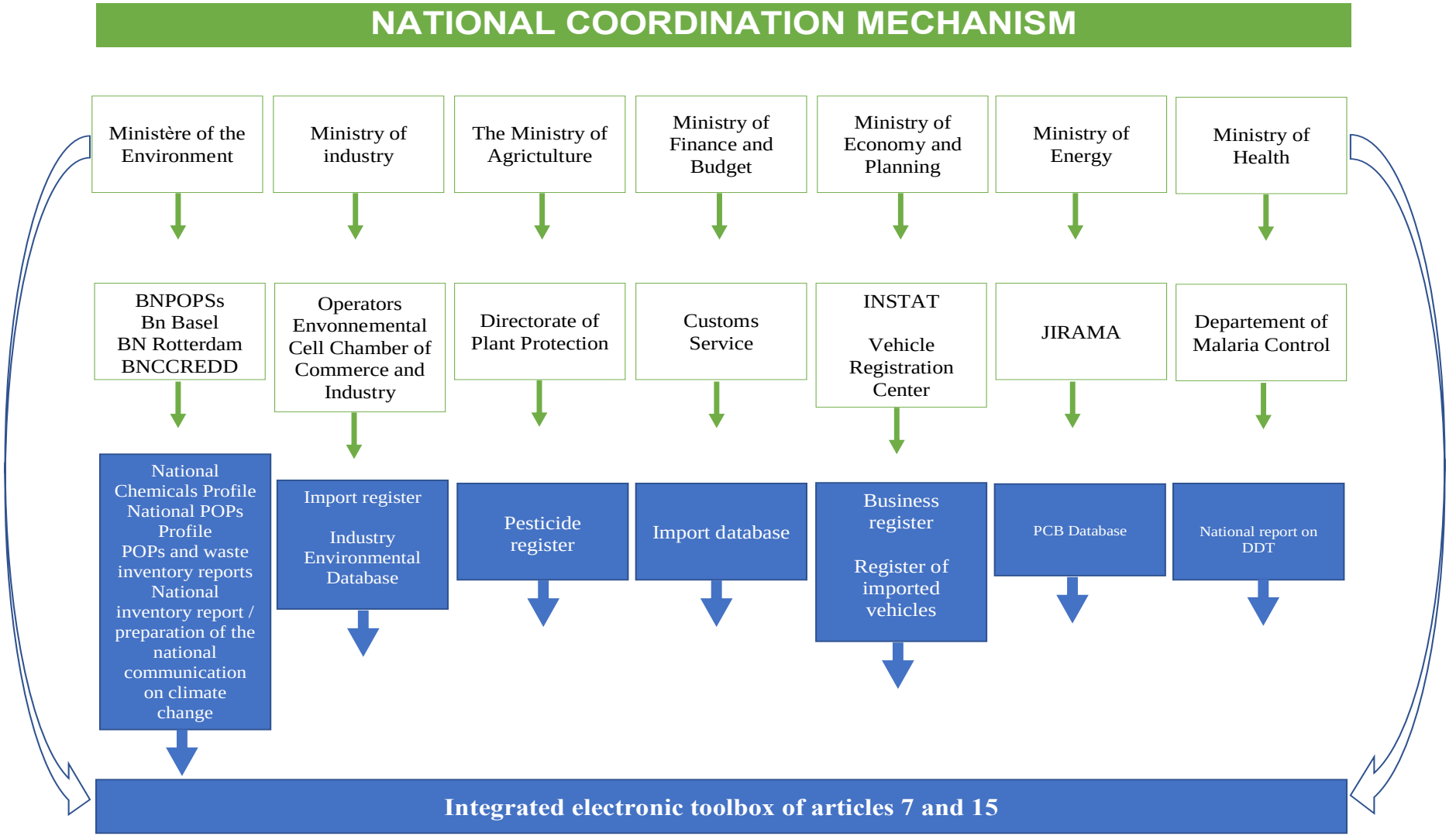
(ii) Contact with waste management officials at local level (Urban Commune or Rural Commune) to obtain the quantity of waste produced and collected;

(iii) Synthesis of the information collected in an Excel file and processing in a cartographic database using a Geographic Information System taking into account the location, the surface of the landfills, the quantity of waste and the management mode in order to generate the maps of the landfills.

This is important for a sustainable national inventory system and easy reproduction of estimates, ensures that loss of data and information is avoided, and facilitates the further development of inventories by staff involved in the inventory process.

Given that equipment containing PCBs and waste containing PCBs are still a major problem for the Republic of Madagascar, in parallel with the integrated electronic toolbox project, a draft regulatory text on the environmentally sound management of PCBs and materials containing them has been drawn up and is in the process of being signed by the Minister of the Environment and the Minister of Energy.

This text provides for a provision requiring any economic operator holding PCBs and materials containing them to make a declaration to the National POPs Office within the Ministry of the Environment. This declaration will facilitate data entry, but also allow BNPOPs to integrate information on other equipment containing PCBs still in use, necessary for the purposes of the complete national inventory of PCBs.


NATIONAL COORDINATION MECHANISM
Ministère of the Environment
Ministry of industry
The Ministry of Agricultlture
Ministry of Finance and Budget
Ministry of Economy and Planning
Ministry of Energy
Ministry of Health
BNPOPSs
Bn Basel
BN Rotterdam
BNCCREDD
Operators Envonnemental Cell Chamber of Commerce and Industry
Directorate of Plant Protection
Customs Service
INSTAT
Vehicle Registration Center
JIRAMA
Departement of Malaria Control
National Chemicals Profile
National POPs Profile
POPs and waste inventory reports
National inventory report / preparation of the national communication on climate change
Import register
Industry Environmental Database
Pesticide register
Import database
Business register
Register of imported vehicles
PCB Database
National report on DDT
Integrated electronic toolbox of articles 7 and 15

Conclusion

In order to have complete and consistent information of good quality, the collection of information relating to the efforts carried out at the country level within the framework of the implementation of the Stockholm Convention on POPs requires close collaboration between the stakeholders (public sector, private sector, civil society organization) and strong national coordination. This guarantees the good quality of this information to be communicated at the international level in accordance with Article 15 of the Stockholm Convention on POPs.

The Republic of Madagascar has made efforts to honor its obligations vis-à-vis the convention in question by submitting the various national reports. Currently, the country is working on the preparation of the fifth report under the Stockholm Convention which will be submitted shortly.

The electronic reporting system is now available for this 5th reporting cycle and the deadline for submission of national reports according to art. 15 is 08/31/2022.

One of Madagascar's advantages is the existence of the National Coordination Committee for the implementation of the Stockholm Convention, which brings together representatives of some fifteen institutions and entities (public, private, civil society, university and of research). The members of this Committee have always collaborated closely with the National POPs Office within the Ministry of the Environment in all activities relating to the implementation of the said convention, including the communication of related data.

Another advantage is the existence of an environmental unit within each ministerial department which holds environmental information at the level of the sectoral ministries and which also serves as a gateway to the ministries for the collection of data and information on the implementation of the Stockholm Convention on POPs.

Nevertheless, special efforts should still be made regarding the collection of data on new POPs. Most of them have not yet been inventoried at the country level. Some related information remains scattered and not all easily accessible.

The good practices provided under the “integrated electronic toolbox” project would help the country to overcome this obstacle.

REPOBLIKAN'I MADAGASIKARA
Fitiavana - Tanindrazana - Fandrosoana

NATIONAL POPs OFFICE

REPORT ON THE POTENTIAL LINKS OF THE INTEGRATED ELECTRONIC TOOLKIT WITH THE DATA MANAGEMENT SYSTEMS AVAILABLE AT THE NATIONAL LEVEL

August 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

ARSIE	ARSIE or SIR regional information systems
DGC	Directorate General of Customs
DRE	Directorate of Rural Engineering
DGT	Directorate General for Trade
ED	Environmental Dashboard
EEE	Electronic Electric Equipment
EMP	Management Plan Environmental
EIMDP	Environmental Information Management and Dissemination Policy
EO	Executive Office
GEF	Global Environment Facility
GIS	Geographic information system
INSTAT	National Institute of Statistics
ONE	National Office for the Environment
ONU Envt	United Nations Environment Organization or ONU Environment
PO	Permanent Office
POPs	Persistent Organic Pollutants
PED	Provincial Environmental Dashboard
RED	Regional Environmental Dashboard
RCEF	Regional Circumscription of the Environment and Forests
SEA	Strategic Environmental Assessment
SMLE	System for Monitoring the State of Major Ecosystems
UNEP	United Nations Environment Program
WEEE	Waste Electrical and Electronic Equipment

1.INTRODUCTION

This report is prepared within the framework of the UNEP/GEF project entitled "Stockholm Convention's Integrated Toolkit to improve reporting under Articles 07 and 15", with the aim of verifying the extent to which extend the existing information systems on chemical and waste data reporting in Madagascar, which can be linked to the integrated electronic toolbox modules, developed within the framework of the project.

This online toolkit should provide Parties with the means to submit NIP and their updates, by integrating 4 modules: a NIP submission module, a guidance module to provide guidance documentation, a POPs inventory to support the collection of data on POPs inventories and a query module to allow querying the database behind the integrated electronic toolkit. These modules will bring benefits to the NIP update process and to Article 15 reporting. The NIP submission module will be automatically connected to the electronic reporting system of the Stockholm Convention. This connection will allow the Parties, at the time of notification, to use the data previously collected from the inventories in updates to their NIP.

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The report provides a general overview of existing reporting systems in Madagascar and potential links that can be used to provide reporting under the Stockholm Convention on POPs and populate data under the update. of the NIP.

2. NATIONALLY AVAILABLE CHEMICALS AND WASTE DATA MANAGEMENT SYSTEMS WITH POTENTIAL LINKS TO THE INTEGRATED ELECTRONIC TOOLKIT

2.1. Information system of the National Office for the Environment (ONE). www.pnae.mg

To carry out its missions, ONE, the regulatory body, ensures the implementation of the Compatibility of the Investment with the Environment decree in its capacity as both delegated contracting authority and one-stop shop. In addition, in collaboration with the relevant sector ministries, the Office proposes limit values and at the same time develops standards and environmental guidelines. ONE is called upon to ensure the prevention of environmental risks, on the one hand by coordinating the monitoring of Environmental Management Plans (EMP), and on the other by proposing sanctions or appropriate measures. ONE is responsible for promoting Strategic Environmental Assessment (SEA), while providing advice and expertise to entities in need. The Office manages the environmental information system, monitoring and

evaluation of the state of the environment to support environmental assessment and for better decision-making at all levels.

Description of the ONE Information System

Among the conditions for the success of this environmental policy, the environmental charter insists on the need to integrate the environment into our medium and long-term planning process as well as the need to improve the tools for controlling evolution of our environment, in particular the use of modern techniques such as remote sensing and the introduction of indicators taking into account the evolution of our natural capital in time and space.

2.1.1 Purpose of the Information System

The basic environmental information system at ONE is designed as a tool for monitoring the state of the environment and its evolution, which should allow greater awareness of economic actors of environmental issues, assess the environmental impacts of different policies and economic activities, and to guide the policy of decision-makers and the activities of different actors in all areas. The system consists of:

- Gather information on the environment through a thematic and/or regional network formed with the various organizations and institutions working in the field of the environment and other related fields as well as field actors and other economic operators;
- Design and develop indicators allowing better monitoring of the environment according to the Pressure-State-Response model;
- Disseminate information to decision-makers, operators and the public by publishing, among other things, periodic reports on the state of the environment as well as other publications presented in different forms (newsletters, educational sheets, posters, etc.);
- Manage the sectoral observatories and the related databases;
- Produce geospatial information and analyzes concerning the state of natural ecosystems from the use of satellite images;
- Develop a statistical system leading to environmental accounting that can eventually be integrated into national economic accounting.

2.1.2 The "design" of the Information System

The environmental information system is made up of two main components, which are 1) environmental indicators and 2) decision support tools (Environmental Dashboard, Reports on the State of the Environment, educational sheets and other communication tools). The two components are linked by a reporting system making it possible to move from descriptive databases of indicators to concrete products specially prepared to facilitate decision-making. But in reality, an information system does not only involve indicators and their availability to decision-makers, it also includes tools, actors and processes.

The provincial/regional environmental indicators associated with the structures for steering and implementing their development, the decision support tools that are produced (PED, REDTB, Reports on the State of the Environment, etc.) and the collection and organization procedures data sources are provincial/regional information systems. The provincial/regional environmental indicators also and above all aim to meet the information needs at the decentralized level and integrate the specific environmental concerns of the provinces and ecoregions.

The national environmental information system then includes the central system based at ONE plus the six provincial environmental information systems and twenty regional environmental information systems.

2.1.3 Indicators

The environmental indicators have been identified in a concerted manner based on the country's environmental contexts: priority environmental issues, national environmental policy and international conventions; The thematic indicators cover five main areas, which are (i) biodiversity, (ii) soil and plant cover, (iii) the coastline, (iv) continental waters and (v) climate and climate change. These five priority themes defined at the national level are generally maintained as a framework for the provincial/regional Environmental Dashboard but other specific themes are sometimes added such as pollution and the management of chemicals.

Two other groups of indicators are defined to take into account socio-economic factors and Environment Program indicators. In fact, environmental indicators include, in addition to the actual physical state of the natural environment, the pressures and the causes of the pressures, including the various sources of pollution, which are exerted on the natural resources, but also the responses by society in the face of problems or threats of environmental degradation. The methodological framework used is based on the use of the perfected Pressure-State-Response model accounting for the interaction between society and nature.

2.1.4 The Environmental Dashboard (ED)

The objective of the ED is to produce and disseminate synthetic, reliable and accessible information to support the decision-making of the various actors in the political, economic and social life of the country at all levels. The ED is actually one of the different ways of presenting environmental indicators. Its specificity lies in the fact that it specifically targets decision-makers and economic players at all levels, as they need synthetic, clear and concise information. The use of synthetic information on the state of the environment should make it possible to integrate environmental management into the various national policies and strategies as well as into the country's regional or sectoral development plans.

The ED is presented in a form that allows them to quickly grasp the environmental situation, the causes of the problems and the actions already implemented. The ED consists of a summary table organized by theme and according to the pressure-state-response trilogy. The indicators are expressed through numerical descriptors with specified measurement units and compared with national or international standards, references in the field or quite simply objectives set by sectoral and/or territorial programs/policies.

2.1.5 The System for Monitoring the State of Large Ecosystems (SMLE)

The System for Monitoring the State of large Ecosystems (SMLE) is an element of the environmental information system that specifically meets the needs for information concerning the ecosystems and biodiversity of Madagascar in territorial units that are ecologically homogeneous and more appropriate for planning. and management. It is initiated with the aim of making available information on the state and evolution of natural ecosystems. The availability and use of information should make it possible to assess the state of Madagascar's ecosystems as a whole, to monitor the impacts of actions already carried out within the framework of the National Environmental Action Plan and finally to rationalize and improve the conservation and sustainable management of ecosystems.

The SMLE consists of the implementation of a subset of the DE indicators that relates to ecosystems and biodiversity. The supply of basic data to the indicators is ensured by the various stakeholders and development and/or environmental institutions working at the field level, under the scientific guarantee of experts and specialists in the field.

The indicators have been selected in such a way as to give the state of each ecosystem to which it applies but also to make it possible to synthesize the information to have the general state of all the ecosystems and biodiversity of Madagascar.

2.1.6 Reports on the state of the environment (RSE)

RSE are reports written according to international standards and practices to analyze the state and evolution of the environment, resources, and human health related to the environment, which includes man and his activities. In economic, social and cultural dimensions. The RSE are drawn up with the participation of experts and specialists in the areas covered; they are structured and accompanied by in-depth analysis.

The RSE are generally based on the environmental indicators of the Environmental Information System. The areas covered are prioritized in relation to the environmental concerns of the moment or of the regions concerned. Thus, when it comes to regional reports, information and analyzes are prioritized and provided by local specialists and the drafting of the parts that concern them respectively are entrusted to them. Reading committees, at national and regional level, are also set up to ensure the technical and scientific quality of reports on the state of the environment.

2.1.7 The actors

The Ministry of the Environment represents the State in all environmental actions. It provides project management at the national level for the implementation of environmental indicators and the production of environmental dashboards.

ONE is mandated by the Ministry of the Environment to coordinate the various environmental data systems and to manage the systems falling within its remit. To this end, it is responsible for setting up and managing the information system specified here. Among other tasks, it is to design, coordinate the implementation and develop this environmental information system.

The national authorities, the main national environmental institutions and the donors of the Environment Program are brought together in a steering committee enabling them to guide and monitor the progress of the implementation of the information system.

Networks and associations of networks of environmental information systems, such as thematic groups, ARSIE or regional information systems (RIS) play a fundamental role in facilitating the exchange and circulation of information. The achievement and production of environmental indicators are based on the availability of these networks and their effectiveness.
The provincial and regional authorities as well as the various technical and steering committees at the decentralized level are the key players in the system and are considered as the owners of the products generated by the system at their level.

The regional steering committee is made up of representatives of potential users of information, i.e., regional authorities, regional stakeholders and decision-makers, decentralized communities and decentralized services, regional executing agencies and other development programs. The technical committee is composed of representatives of the Steering Committee, regional executing agencies of the Environment Program, representatives of provincial institutions producing/holding information, i.e., the technical services of the ministries concerned (e.g., agriculture, water and forests, rural development, energy, etc.), NGOs, the private sector, universities, research centers and other development programs/projects

In short, the actors of the system are therefore the same as its potential users. This ensures the use and therefore the appropriation of the products.

2.1.8 Acquisition of information

The acquisition of data for the measurement of indicators is done in several forms:
- Direct acquisition of data from the producing institution with different methods depending on the type of indicator (transmission);
- Research and exploitation of documentation (summary, statistical analysis, mapping) by ONE and by the technical committees;
- Processing of data generated by other department at ONE such as impact studies
- Carrying out of surveys, studies or additional measures by ONE.
- Realization by ONE of satellite image processing using image interpretation and geographic information system tools.

The ONE invests enormously in these last three axes, that is to say the generation of data, in order to satisfy the information needs and therefore to ensure a better data reliability.

2.1.9 Management of databases and indicators

Appropriate databases are created and managed at the level of ONE and at the level of regional environmental information systems to store the information collected and thus constitute a computerized reporting system for the production and feeding of indicators and reports. These databases are organized according to themes, the location of reference sites and according to the Pressure-State-Response methodology.

Software packages are set up to operate the regional information systems which are reproduced entirely in the parallel system managed at ONE level. BDIE and MDG which are applications under MS Access for the organization, the consultation of the descriptive sheets of the indicators and the storage of the values of the indicators; A PHP Nuke module, known as Metaline, which is a Web application under PHP/MySQL (free software) for managing existing metadata. This module will also ensure the relationship between the regional information systems and the central one.

2.1.10 Dissemination of information

These decision-making aid tools are distributed through the publication of brochures, printed documents, the publication of interactive electronic versions of documents on CD-ROM and the provision of information on the Internet (http ://www.pnae.mg).

2.2. Environmental Information Systems Network Association

2.2.1 Goals

- **Facilitate and energize the circulation of reliable information and data** concerning the environment in Madagascar.
- Contribute to a broader **vision of environmental issues consistent** with the imperatives of sustainable development.
- **Bring together organizations and resource persons** producing, disposing of or using information relating to the environment.
- **Develop strategies for networking EIS** (environmental information systems).
- **Make known what exists in Madagascar** in terms of data, skills and experiences on the environment.

2.2.2 Activities

2.2.2.1 Technical activities

- Production and dissemination of member metadata.
- Diagnosis, entry in a standard format, consolidation and cataloging of existing metadata in the institutions.
- Training of members for the use of the WinIsis software.
- The offer of its metadata expertise to various national or international projects:
  o Information monitoring with Mediaterre
  o RAIN (Network of Agricultural Information Associations)
  o Conservation of wild relatives

- The implementation of the conceptual model for the exchange of information between ARSIE and the regions (2 pilot sites, in the regions of Menabe and Mangoro-Alaotra).

2.2.2.2 Communication activities

- Writing and publishing a quarterly newsletter: the FEHY
- The holding of exhibitions accompanied by conferences-debates

2.2.2.3 Legal activities

Support for the implementation of the Environmental Information Management and Dissemination Policy (EIMDP) within member institutions.

2.2.3 Organizational structure

- The General Assembly is the supreme organ of the Association. It is made up of all the members of the association. In particular, it decides on the strategic orientations and the annual work plan of ARSIE.
- The Executive Office (EO) elected by the ordinary general assembly coordinates the various activities of the association. It directs the activities of the commissions and the permanent office. He sees to the execution of the activities adopted in the General Assembly.
- The Permanent Office (PO) ensures the implementation and monitoring of the activities of the association. It also ensures the administrative management.
- Five commissions (communication, legal, technical, training, administrative and financial) meet regularly, and advise the EO according to their skills.

2.3. Information system relating to the Waste Electrical and Electronic Equipment (WEEE) Management Plan

The movement of WEEE from the rack (warehouse) to the dismantling area, the sending of each carton containing WEEE to the dismantling area and the control of weight, quantities and persons responsible must be recorded by an information system or in a database, with the serial number of the equipment.

2.3.1 Storage

At this stage, the following aspects should be taken into account:

Clean materials and components resulting from the dismantling of WEEE and containing hazardous substances must be stored in an area different from that where the entire electronic waste is stored and be duly identified.

All hazardous waste must be accompanied by safety data sheets and emergency procedure sheets concerning the main hazardous substances present, taking into account the compatibility matrix.

Cells that contain lithium should be stored in a separate, restricted area, should not be exposed to heat, sunlight, moisture or water as they may ignite or explode if exposed to high temperatures.

The accumulators must be stored away from humidity and rain and under tarpaulins. Lamps containing mercury and CRT, LCD or plasma screens which have been accidentally damaged must be stored in firm boxes and identified accordingly.

The rooms where the lamps are stored must be ventilated, to limit and control emissions into the environment, and easily accessible to authorized personnel, who must however visit them as little as possible.

The stock register must be updated each time WEEE enters and leaves.

2.3.2 Registers

Records should be established and maintained for the following: mass balance between the weight of obsolete or discarded EEE (whole) and that of recovered materials and components sent to other processing areas or to other downstream agents, depending on the elements stored (the balance sheet must be carried out for each batch, or at least every six months); transport document signed by the parties, indicating which material or component is transported, its weight (kg), container number, original batch, destination and vehicle information (registration number, type); list of items to check regarding the condition of the vehicle, signed by the parties; certificates for the treatment and disposal of waste.

2.3.3 Monitoring and documentation of types and quantities of e-waste managed/disposed of Registers

The Head RCEF Responsible for the management of WEEE in each District must control the entire process of waste management, from their place of origin in the municipalities to their destination, and update the list of treatment centers and involved in the recycling chain.

Records should be kept on the methods of treatment and disposal of waste according to its nature and quantity; the types and volume of metals or other materials obtained as well as parts resulting from the process; and disposal methods. Records should include data on mass balances and treatment and disposal certificates.

An EEE waste tracking sheet must be prepared.

2.4. Agricultural and Food Statistical System

2.4.1 Existing databases, data dissemination tools and platforms

Despite the weakness of the agricultural statistics system, databases exist at the level of the structures producing official statistics, particularly within the four main ministerial departments.

2.4.2 Internet connection and website

State sector statistics services often do not have a connection or if they do, the speeds are often very low and do not allow the structures to take full advantage of them.

As for the website, ministries often have websites; however, the inability of the services to produce statistics on a regular basis to periodically feed the sites presents a major handicap. The websites of the technical ministries of rural development are:

- Ministry of Agriculture: www.agriculture.gov.mg
- Ministry of Fisheries: www.peche.gov.mg
- Ministry of Livestock: www.elevage.gov.mg

Although the development of new information technology should facilitate the dissemination and access to statistics through Internet connections and the website, the services producing statistics do not take advantage of this opportunity.

2.4.3 Database

There are quite a number of existing databases through the various services responsible for sub-sector statistics. However, their reliability is not always certain due to the lack of professionalism and qualification of the staff, the obsolescence and non-performance of the material means and the lack of financing of the producing bodies.

Apart from directory publications and other documents produced periodically, databases are generally managed on digital files and archives in EXCEL format. They can be obtained on request from the producing structures.

In general, two types of agricultural statistical data are distinguished, structural data or basic statistics whose changes are very slow and are only significant after years, and current statistics or short-term statistics.

Basic statistics are only produced on an ad hoc basis, for example the characteristics of the population and agricultural households, the average size of holdings, the characteristics of farm animals, the mode of production and the cropping system, etc... These statistics were produced during the 2004/2005 census, and the results are available but they are now more than ten years old and the operation deserves to be renewed.

Current statistics, for their part, must be produced annually because of their short-term variability. For plant products, they concern, among other things, the production, yields and prices of crop products, and for livestock products: slaughtering, immunizations, marketing, etc.

The main existing databases of the agriculture sub-sector department are:

- The production and areas of the main crops;
- Imports and availability of agricultural inputs (fertilizers, pesticides);
- Sales of inputs and agricultural equipment;
- Imports and exports of agricultural and food products;
- The prices of the main food products;

- Rural and agricultural populations,
- Financing of the rural world,
- Agricultural education,
- Results of the 2004/2005 Census of Agriculture

2.4.4 Consumption, trade, rural land, agricultural materials and inputs and other relevant indicators for agriculture and food

In addition to the sectoral statistics mentioned above, many other statistics contributing to the development of agricultural and food statistics exist and are produced by various official or unofficial structures, for public administration or for the specific needs of the producing structure. These are consumption statistics, both national and international trade statistics (quantities marketed, imports and exports in volumes and values), land statistics, hydro-agricultural works and infrastructure, sales of agricultural equipment by type, **availability of agricultural inputs and prices**, etc.

Among the services concerned by the production of these statistics are:

> The National Institute of Statistics
> The National Nutrition Office
> The National Land Program of the Ministry of Territorial Planning)
> The Directorate of Rural Engineering
> The General Directorate of Commerce
> The General Directorate of Customs
> The Rice Observatory

2.4.5 Correspondence of the local classification with the international classification of agricultural and food products

Malgache nomenclature of products	Local code. NOMAP 2012)	FAO nomenclature of products	FAO code (FCL)
other transportable goods, excluding articles of metal, machinery and equipment	3		
Basic chemical product	34		
Fertilizers and pesticides	346		
Mineral or chemical fertilizers, and nitrogen	3461		
Mineral or chemical fertilizers, phosphates	3462	Natural phosphates (products obtained by spraying)	1399
		Natural phosphates (natural rock)	2510
Mineral or chemical fertilizers, potassium	3463		
Mineral or chemical fertilizers containing at least two nutrients of nitrogen, phosphate and potash	3464		
Other fertilizers	3465	Engrais organiques	1401
Insecticides, fungicides, herbicides and disinfectants	3466	Insecticides (including acaricides, molluscicides and nematicides)	1309
		Herbicides (including defoliants	1320

		and desiccants)	
		Fungicides and bactericides	1331
		Disinfectants	1351
		Seed treatments - Fungicides	1352
		Seed treatments - Insecticides	1353
		Pesticides n.d.e	1355

3. CONCLUSION

As in any developing country, the statistical system suffers from weak coordination. The producers of sectoral statistics each seek and manage their financial, human and material resources according to the realities prevailing at the level of the sector.

In addition to this, the statistical system is characterized by: (i) the inconsistency of data due to the plurality of producers of statistics in the field of POPs management, (ii) the low level of coverage, both temporal and spatial , (iii) insufficient reliability of data due to lack of professionalism and low capacity of production structures, (iv) delays in the production and availability of data due to insufficient human and material resources, (v) the weakness of the statistical analysis due to the insufficient human and material capacities of the producing structures, (vi) the inadequacy of the data to the needs due to the non-existence of consultation/meeting of the producers and users and of the inventory of the needs.

By strengthening intersectoral coordination and collaboration, the integrated electric toolbox would help fill some of these gaps by helping the country to better coordinate and organize itself to have more reliable and consistent data and information on POPs.