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Background

In 2012 the geographical scope of the ENPI-SEIS project was extended to cover Libya as a new partner country¹. As an engagement to this in early 2013 the Libyan General Environment Authority officially appointed a National Focal Point (Dr. Mohamed Hamouda) and nominated representatives to the Working Groups on IT and Environmental Indicators, which have been engaged in the further project activities. With the last couple of years it has not been possible to organise a country visit to Libya, similarly to the other ENP South partner countries, however the preparation of the current country report has been used as an opportunity to document the current state-of-play on environmental issues and potential future development needs linked to the SEIS implementation at national level.

Country Profile

Libya is the third largest country in Africa with a surface area about 1.757 million km² and small population of about 5.3 million inhabitants as been indicated by the latest population censuses in 2006 and expected to grow to 9 million by 2015. The annual rate of growth was 1.77%. The Libyan population had a moderate growth, as it increased from 2,4 million inhabitants in 1975 to 5,4 million inhabitants in 2006 (Fig.1)

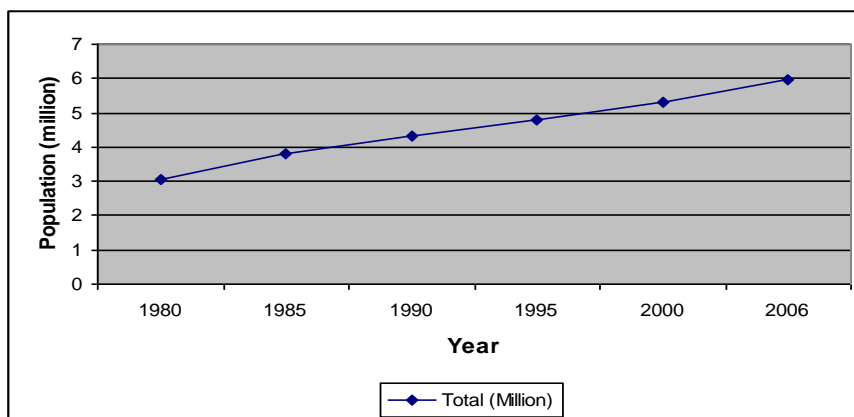


Fig.1 Evolution of the Libyan population from 1980 to 2006

The country borders:

The country is bounded in the north by the Mediterranean Sea, in the east by Egypt, in the southeast by the Republic of Sudan, in the south by Chad and Niger, in the west by Algeria, and in the northwest by Tunisia (Fig.2).

¹ European Council decision of 23rd October 2011 giving eligibility to Libya to participate in ENPI activities



Fig.2 Libya Country borders

Approximately 85 % of the total population lives in the coastal area particularly in the major cities such as Zawia, Gherian, Tripoli the capital, El-Khoms, Misrata, Sirte, Benghazi, El-Baida Derna and Tobruk. The remaining 15% live in the southern part of Libya in the desert in cities and towns such as Sebha. Ghadames, Jalo, Ujela, Kufra, Jufra and Hoon. The population density of Libya averaged to two inhabitants /km². However, some coastal cities are more densely populated than in the southern regions that have a population density less than one inhabitant / km².

The socioeconomic activities within its three major domains, namely: agriculture, industry and services provisions are always considered to be the principal reason of population density increase in these major cities. Climatically Libya can be divided into two different zones of climate the Mediterranean climate, and the presence of the Sahara desert. The desert of Sahara covers around 90% of the national territory; and the coastal lowlands cover 1900 km.

The Mediterranean Sea strongly influences the climate of the coastal region which receives about 400 mm of annual precipitation. In the desert areas, the climate is extremely hot and dry with little precipitation. Daytime temperatures in the desert reach an average of 38° C, while nights are relatively mild with average temperatures of 10° C.

1. Institutional Framework

1.1. Ministries and Institutions:

There are various governmental Institutions such as the Environment General Authority (EGA), Ministry of Health (MoH), General Water Authority (GWA). The Environment General Authority (EGA) is the major environmental authority in Libya which was first established in 1982 as the Technical Centre for Environmental Protection and then upgraded to become the environment General authority (EGA). It was established under the General People's Committee for Health and Environment in the year 2000 in accordance with resolution No. 263 of the General People's Committee. The Environment General Authority is an independent autonomous institution which exercises its duties in accordance with the Environmental law No. 15 of 2003 to protect and improve the environment. The Environment General Authority is the advisory body concerned with environmental affairs with respect to the protection and conservation of natural resources, to abate and prevent environmental degradation and to achieve safe treatment of contaminants and pollutants. It operates on three different levels: national, regional and local. At the national level, EGA is responsible for formulating an integrated and comprehensive national environmental policy for sustainable development and integrated planning. It is also acts to formulates and develop specific strategies, standards and priorities for environmental protection and natural resource conservation. At the regional level, seven branches were established in order to be responsible for the implementation of the national environmental policy. The Environment General Authority (EGA) main duties can be listed as follow:

- Preparation of studies and research on the environment within Libya to protect and conserve its biological resources, in collaboration with the research Centres and other specialized national and international institutions.
- Awareness campaigns in various ways to publicize the environment and the rules and guidelines to protect it from pollution and its causes if any.
- Monitoring and recording of species imported to or exported from Libyan in implementation of the CITES Convention.
- Granting authorizations for activities which may have adverse effect on the environment including import or export of chemicals. The Authorization states the rules and conditions and requires the beneficiary to comply with the conditions contained therein.
- Recording of all types of chemicals that may result in contamination of the environment including pesticides used for the purposes of public health and agriculture.
- Expression of opinions on the environmental impact of projects of various kinds before their inception.
- Follow-up of conventions, treaties and international developments in the field of environment, and coordination with the national committees and the competent authorities to implement the relevant obligations to those conventions.
- Cooperation with international groups to remove the causes of pollution in coordination with the national authorities concerned.
- It is also responsible for state of environment reporting and assessments. The SoE and EIA are both mandated by the Libyan national law. In addition to that it is responsible for both water and Air quality.

- Currently committee working on reviewing the existing law and duties of EGA and emphasising on the importance of EGA responsibility on dissemination of information and data related to the environment and is committed to the public by providing access to information which is available to the public. It also encourage EGA to promote scientific environmental research needed for stakeholders, promotes innovative technologies and cleaner production, help in the development of sustainable environmental indicators and trends.

General Water Authority (GWA)

The General Water Authority (GWA) was established in 1972. The organisation works under the Secretariat of Agriculture, Livestock and Fisheries and is the national body responsible for all water assessment, planning, management of water resources and monitoring. It provides advice to water users, formulates water legislation, designs water structures and supervises their construction, and monitors and implements water legislation. GWA is responsible for management of conventional water, both surface and groundwater, but not Great Man-Made River water desalination and wastewater. GWA acts as a Hydro-geologic consultant to the GMR and to parts of the Ministry of Agriculture. The GWA is composed of six General Directorates: Planning, Follow-up and Statistics, Water Resources, Dams, Irrigation and Drainage, Soils, and Finance and Administration. It is concerned with the supervision of irrigation and drainage projects. Furthermore, it performs research and studies aimed at improving the irrigation network. It has a documentation centre and has recently established a system for data storage and retrieval linked to GIS. It also has a central laboratory equipped for various analyses related to water and soils. The Secretariat of Agriculture and Animal Wealth is responsible for the development of irrigated agriculture and the implementation of major projects. A special Authority, called "The Great Manmade River Water Utilization Authority", is responsible for the use for agricultural purposes of the water transported from the desert to the coast. The Secretariat of Municipalities takes care of the water supply to urban settlements. At present, no water fees are imposed on users of water for irrigation purposes.

National Centre of Statistics and Documentation

This Central Bureau of Statistics is the national body responsible for the collection, processing and publication of official statistics on the population and its activities in society and on the economy. It is affiliated to the Ministry of planning. The Centre has just recently started to collect and publish data on the environment and environmental indicators. These data include information on water resources and water quality, biodiversity and waste in coordination with the relevant institutions in order to prepare and publish jointly the annual report and to update all the necessary information needed. It also strengthen the national capacities to produce and publish complete, reliable and relevant environmental statistics and indicators. Currently the centre is extensively active on regional and international programs for monitoring and reporting such as System for Environment-Economic Accounting (SEEA) organized by UNSD and the German GIZ.

The Ministry of Local Government

This ministry is responsible for drinking water quality, water quality, the quality of wastewater treatment and reuse of the treated wastewater in agriculture in cooperation with the Ministry of agriculture and other institution as mentioned below. It is also responsible for solid waste collection through the national company for cleansing, safe management of toxic waste from hospitals and construction and operations of landfill. The ministry is involved in the protection of public health including measures to encourage waste recycling and development of green areas and the so called the cities green belt.

EGA and Municipalities

All the local government at the municipality level have their own environmental protection units separate from EGA. They appropriately deal with municipal priorities of water supply and quality, wastewater treatment and reuse, solid waste disposal, landfills operations, recycles of waste and other related issues.

Water Management

There are several institutions involved in the operation and management of the water sector and their tasks are often overlapping.

National Company for Water and Wastewater

This was set up in Tripoli in 2008. It has 8 branches across the country. It is affiliated to the general cooperation for housing and utilities and deals with water supply from any source (ground water, surface water, desalination plants (covers 2% of the annual water demand), treated waste water) and with waste water treatment and the sanitation. Although a strategy is in place for the domestic user to pay for water 60% of households are not paying their water bills. Municipalities pay for water supplied from the MRA but at a heavily subsidized price.

Man-Made River Authority (MRA)

Responsible for groundwater exploitation and its transport from the southern well fields to the coastal area. It is well known that Libya suffers from scarcity of water. Only 5% of the country area is located above the geographical line for rainfall, and about 97% of the total consumption of water which is about 4.8 Billion m³/y comes from ground water resources. The increased population and the fast development the country witnessing now, is of great concern from the sustainability's development point of view. Water shortage has caused depletion of the underground water which mainly comes from six major reservoir Fig.3 and resulted in the intrusion of sea water and increasing salinity. This has resulted in low water quality for irrigation and for human consumption. Consequently, agricultural water wells have reached about 800m in depth in some coastal areas, like Al-Jabal al-Akhdar region in the eastern part of Libya.

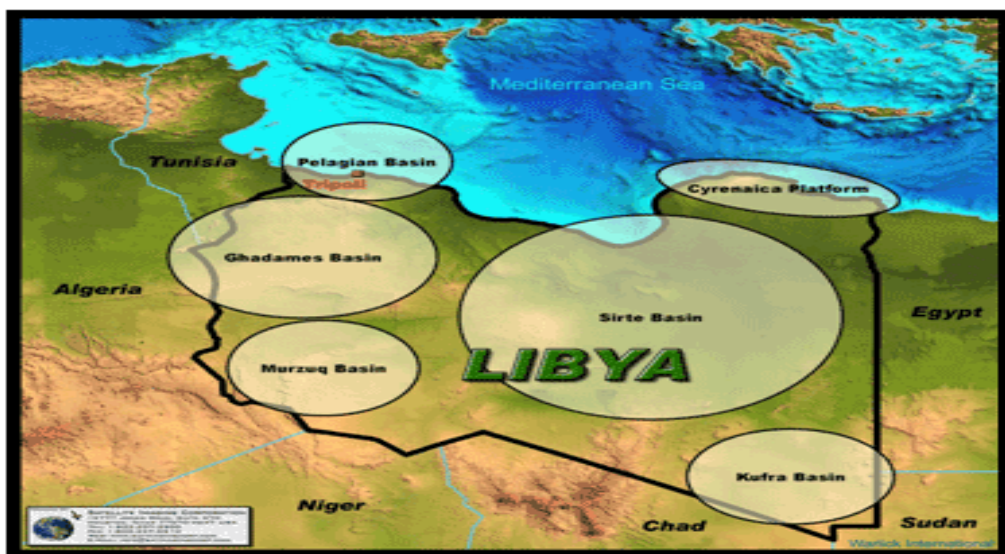


Figure 3. Major Groundwater Reservoir in the Country

In October 1983 the General People's Congress held an extraordinary session to draft the resolutions of the People's Congresses, which decided to fund and execute the Great Man-Made River Project, and on August 1984 was the commencement of the construction of the Great Man-Made River Project. (Fig 4).



Figure 4. Schematic map of the project. Designed.

Manmade River Water Utilization for Agriculture

This organization operates under the Secretariat of Agriculture, Livestock, and Fisheries and is responsible for designing and constructing water structures (distribution and drainage networks, reservoirs, irrigation systems) necessary to make use of the water transported from the south for agricultural purposes. It has responsibilities for the management of transported water supplied by the MRA to irrigation projects set up by government. Some private farms also now receive transported water.



Air pollution:

Libya is among the major oil exporting country in Africa and its economy is heavily dependent on oil production. It has several oilfields all over Libya. Flaring is the common methods used in almost all oilfields in Libya for safe disposal of excess hydrocarbons. By burning the hydrocarbons there by converting them largely to carbon dioxide and water and therefore their environmental impacts is greatly reduced. Oil and gas industries consist of several different activities from exploration to production. All these activities have different impacts on the environment and the severity of the impact is greatly depends on the nature of activities and types of pollutants emitted. One of the major impact from oil and gas industries is the atmospheric pollution, where air pollutants are emitted to the air. Although most of the oilfields are located in the desert which makes the impact almost localized in uninhabited area, A complete picture on the quality status of the atmosphere requires an extensive analysis monitoring programme should be done on a daily basis within the major cities and in particular at the surrounding area of the industrial plants in order to safe guard and protect the environment. The air pollution is not yet a major problem in almost all the Libyan Cities due to the fact of low emission and for the cities being open which makes dilution is more efficient.



Flare of Zallah oilfields at Sunset time

Besides EGA some national oil companies have their own mobile air monitoring stations. Zueitina Oil Company for instance and Melita complex emits air pollutants such as SO₂, NO_x, PM, CO, NMHC into the atmosphere. The companies monitor air quality in the surrounding area but not on a regular basis. They also launched a survey recently in order to detect the level of air pollution (source emission and ambient air quality) occurring in various locations in each fields and assess the risk for the health of employees and environment during normal operations and maintenance. However still a large number of companies didn't comply with the regulations, particularly in the monitoring and recording pollutants emission. EGA is about to formulate strategies in order to enhance the enforcement of the law.

1.2. Policy and Legislative Framework:

Law No. (15) 2003 on the protection and improvement of the environment. The law contains eleven chapters (79 articles) focused on the protection of: air pollution, sea and marine wealth, water resources, food, sanitation, environment protection, oil, vegetation and wildlife. Currently this law is under study, and a new articles will be added in order to make the law foster sustainable development and participate to the promotion of international measures aimed at preserving the quality of the environment. It also will include the right for the public to know about the quality of the environment through the reporting obligations.

- Law No 7/ 1982 as substituted by Law No 15/ 2003 on the protection of environment constitutes the national legislative body in the field of environment to formulate the general policy and prepare the necessary plans for the protection of the environment.
- Law No (5) of 1969 on the organization and planning of towns and villages amended by law No. (3) of 2002
- Libyan marine law No. (105) of 1958, concerning various issue, including marine vessels collision
- Law No (38/39) of 1975, concerning municipalities organizing actions, defining in details concerned with environmental protection
- Law No (62) of 1976, containing certain amendments to marine law and Captain's responsibility with regard to oil log
- Decision of the Minister of Municipalities No 24 of 1976, concerning Model Public Cleansing Regulation and law n° 13 of 1984 for public cleansing and its executive regulation and provisions in the legislation that covers collection of waste and issues related to solid waste management in Libya. The law deals with the responsibility of the authorities for waste collection. Law No. (14) 1989 on the exploitation of marine wealth This law contains six chapters with 19 articles on the exploitation of marine wealth, its exploration, conservation and management of living organisms, as well as procedures for granting permissions and licensing requirements for foreign vessels and fishing rules

National Centre for Standardization and specification:

The National Centre for Standardization and specification is Libya official institution for the preparation and publication of Libyan standards and specification including the environmental standard. The National Centre for Standardization and specification is a governmental body that is responsible for the preparation of standards as well as to ensure the quality of products which are produced locally or imported. These standards cover also environmental issues. The centre is currently engaged on the certification and training activities and providing testing and inspection services to industry and commerce, as well as regulatory services to government.

1.3. Inter-institutional cooperation:

Despite the fact that there was a good cooperation between EGA and all the institutions mentioned above, and in particular the environmental units within the municipalities, many efforts remain scattered among these institutions. There is lack of coordination among the agencies and duplication of efforts were evident in many cases possibly due to the different degree of responsibility or influence with regard to environmental issues; among them and the legal framework is not clearly spelled out. This situation have resulted in weakness in enforcing the environmental law in addition to other problems such as a lack of equipment, trained personnel and general awareness are inhibiting the consistent implementation and enforcement of environmental laws in Libya. This would require identification of roles and responsibilities for each institution and strong coordination between these institutions in order to work together and contribute to the elaboration of environmental information in its different format and reports to national and international organisations on different environmental aspects.

Section 2. National policy responses

The main authority responsible for the environment is the Environment General Authority (EGA), which was established in 1998 following issuance of the General Peoples Committee decision No. 263, to replaced the “Technical Centre for Protection of the Environment that was established 263, to 1984”. This makes Libya among the first Arab countries to establish environmental institution and frame legislative and related measures for environmental protection. Also in 1998, the General Committee issued decision No. 386 concerning the Executive Regulations of Law No. 7. It’s Peoples affiliated to the General Secretary of the People’s Congress but now it is attached to the Ministry of Health. The activities of the Environment General Authority (EGA) comprised the planning of environmental policy, preparing a national strategy and action plan with concerned bodies, monitoring and controlling of pollution in different areas of Libya, as well as sponsoring applied scientific research and projects.

Strategies to minimise the impacts of environmental problems have been undertaken in the national planning development plans of the different sectors in the past decade, and more recently in the latest sustainable developments strategies including the Libyan Environmental Action Plan (LEAP). In addition to the Environment General Authority (EGA), the Ministry of Agriculture is responsible for water use through the enforcement of the Law No.33 of (1970), which deals with all matters related to the protection of agricultural lands as well as Law No. 3 of (1982) which deals with water abstraction and the use and the protection of aquifers and, Law 15 of (1989) Protecting Animals and Trees.

Despite the fact that Libya is the first Arab country to establish environmental legislations, the enforcement of the law remain below the expectation. A national committee has been established recently with the aim to identify gaps and analysis the existing legislations and find ways to strength its implementations through the use of economic instruments in the environmental policies as they were found to be more efficient, since they have an immediate effect on a polluter’s budget. Currently there are, inadequate pollution monitoring system and technologies, therefore fines are based on what’s been mentioned on the Executive Regulations instead of measurements and calculations. These calculations often don’t reflect the actual situation or emissions levels. Therefore the main goal of the economic instruments is to reduce pollution by ensuring that polluters and consumers make the best choices for the environment voluntarily. However, the main principles for choosing economic instruments should be the following:

- the polluter pays principle;
- It should promote the concept of Cleaner Production and the use of Green Technology;
- It should be fair and scientific sound towards all different polluters;
- The money collected for pollution should be used for environmental investment in regions that suffer due to a specific polluter.

The Government is also considering to introduce a taxation on natural resources in order to help sustainable use of natural resources and limit environmental deterioration and increase conservation and protection of the environment, as well as to accrue funds for financing environmental activities.

As a sign of the Government commitment towards making positive steps in order to strengthening the linkages with relevant regional and international organisations and programmes dedicated to environmental sustainability, several projects have been implemented in a close partnership with the United Nations Environment Programme and other UN agencies.

More recently the Ministry of Agriculture, Marine and Animals Resources signed in Rome an agreement with the Food and Agriculture Organisation (FAO) for 18 projects with a total cost \$71 million dollars in several areas covering the following:

- Developing and improving of the existing system of Plant protections
- Pesticides managements
- Improving Animals Health,
- Managements of Natural Resources
- Biotechnology development of developing Marine Resources
- Combating Desertification.

International Environmental Conventions:

Libya is a signatory to several environmental conventions including the Barcelona Convention and its recent protocols, such as the protocol for the protection of the Mediterranean Sea against pollution from Land-Based Sources and activities (LBS). More recently the Integrated Coastal Zone Management (ICZM) and other new plans with the Horizon2020 initiative were initiated.

Libya has signed and ratified the Convention on Biological Diversity, the UN Framework Convention on Climate Change, Climate Change-Kyoto Protocol, the UN Convention on Combating Desertification, the Cartagena Protocol on Biosafety. The Country has accepted the Convention on International Trade in Endangered Species and the Basel Convention on the transportation of Hazardous Wastes, the Vienna Convention for the protection of the Ozone Layer and the RAMSAR Convention on Wetlands.

In the light of the national strategy the Libyan Government through the Environment General Authority have conducted a national studies in 2009 in order to find the best policy that can synergise the three Conventions, which are the Convention of Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), and United Nations Convention to Combat Desertification (UNCCD). Despite this effort there are still several steps to be carried out by the Environment General Authority in order to bridge the gaps that still exist. The analyses the Multilateral Environmental Agreements (MEAs) and assessment of their ratification and implementation and in particular the three above mentioned conventions reveal, as mentioned in the study, the following constraints:

- Lack of national capacity to implement the three Conventions.
- Lack of coordination and cooperation among the national, regional and international institutions.
- Lack of sustainable Knowledge management system and technology transfer strategy need for the implementation of the three Conventions.
- Lack of outreach, networking, and public awareness program.
- Weak integration of the three environmental Conventions in the national policy and development plans.
- Lack of financial mechanisms to support the implementation of the three Conventions.
- Weak involvement of local community in the implementation of the three Conventions.

Libya has ratified several international conventions. As regard reports no information is available. EGA is the lead agency fulfilling Libya's international agreements.

Table: List of international conventions and agreements that Libya is a party of

Convention	Date of ratification	Reporting obligation	Next report due on
The Ramsar Convention on the preservation of wetlands	1971	Information Sheet on Ramsar Wetlands (RIS)	
The Convention on Biological Diversity	1992	National report on implementation of the Convention	
The Cartagena Protocol on Biosafety	2000	National report	
The Convention on International Trade in Endangered species of wild fauna and flora.	1973	Annual report on CITES trade and biannual report on legislation	
The Vienna Convention and Montreal Protocol to protect the ozone layer.	2014	Annual ODS report	
The Basel Convention on the Control of Hazardous Wastes and their transfer across the border	1989	Yearly report to the Convention	
The United Nations Convention to Combat Desertification	1995	Report on implementation	
Bamako convention on the ban of the import into Africa and the control of transboundary movement and management of hazardous wastes within Africa	1991	Report on implementation	

Industrial Emissions:

The protection of the environment act Law No 7/ 1982 as substituted by Law No 15/ 2003 on the protection of environment constitutes the main legislative instrument for controlling air pollution under this Law. EGA is responsible for issuing administrative orders to operators of existing industrial and energy facilities indicating specific requirements to prevent and reduce their emissions .and to insure that industrial plants take appropriate measures to prevent or minimize environmental and other nuisances. The industrial plant permits which contain a set of operating conditions and environmental performance requirements, including environmental monitoring and reporting. EGA has used the IPPC Directive (Integrated Pollution Prevention and Control Directive of the European Union) for the permitting process of industrial facilities, including the implementation of BAT, site-specific permit conditions, environmental standards and benchmarks, integrated permits and public participation according to the EIA procedures set by EGA.

EGA is currently preparing for new air pollution regulatory framework are under study for setting stationary and ambient emission guidelines and standards providing for regular revision of air quality standards for air pollutants. It is also acting to formulate a national plan for the reduction of air pollution and to set up procedures for monitoring and assessment of air pollutants, compilation of air quality data, and air pollution forecasts.

This law is also the central legal Instrument governing the "cradle to grave" management of hazardous substances in Libya provides legal tool for EGA to control hazardous substances, including the issuing of licenses, regulations and the supervision of the various aspects of the production, use, handling, marketing, transport, import and export of such substances. According to the Hazardous Substances guidelines set recently and to the Hazardous Material Permit, the latter specifies the conditions for handling hazardous waste and hospital waste.

The municipalities are responsible for the collection of the generated hazardous waste data, while EGA are have the responsibility of inspection on the transferred for treatment and final disposal of waste. Data which must be reported include: waste definition, quantity, treatment operation, wastes generated after treatment, recycled material if any.

Currently EGA efforts are focused on introducing alternatives to landfilling source reduction, reuse, recycling, anaerobic digestion, composting in order to address the solid waste problem in the country. EGA has formulated a policy with the help of UNDP in order to put in place an integrated waste management system, including the complementary use of a variety of practices to handle municipal waste safely and effectively. Currently local authorities are responsible for the storage, collection and disposal of municipal solid waste (MSW), and they determine the legal and administrative arrangements for collection and disposal. Municipalities are also authorised to establish sites for landfills and to determine other waste disposal locations in accordance with Law 15 for the protection of the environment and decision of the Minister of Municipalities No 24 of 1976, concerning Model Public Cleansing Regulation and law n° 13 of 1984 for public cleansing and its executive regulation and provisions in the legislation that covers collection of waste and issues related to solid waste management in Libya. It obligates local authorities, either individually or jointly, to establish sites for the disposal of building debris and vehicle scrap. There are regulations that prohibit the open air burning particularly of plastic, require their collection at the edge of the field for recycling or their transport to a landfill Municipalities are required by law to report every year to the Environmental Protection Minister, the amounts of recycled MSW by: type of waste, amount (tons) and recycling facility. However, there is no segregation of or recycling of MSW in the

almost 90% of the country as there are no separate collections of recyclable materials from households. Neither are there any recycling containers nor “bring schemes” where the public can deposit materials such as steel and aluminium cans, glass bottles, plastics, newspapers and magazines.

Marine and coastal environment:

In addition to Law 15 for the protection of the environment, Law No. (14) Of 1989 on the exploitation of marine wealth is also represent a legal instrument used to prevent pollution of the sea (dumping of waste). A permit for the dumping of waste to the sea has to be obtained from EGA. Libya is also an active member of the Barcelona Convention and the regulation for Sea Pollution from Land-Based Sources protocol is implemented, These regulations relate to permits for the discharge of waste or sewage into the sea from a land-based source which may or may not be granted by the Permits by EGA. Permits are only issued under special conditions, for example in cases where waste or wastewater does not contain toxic materials which are harmful to the marine environment, as specified in the annexes to the regulations. In cases where such materials are contained in the waste, the plant must prove that it has undertaken every effort and used the best available technology for the treatment of the waste prior to its discharge in to the sea. The conditions and criteria for the granting of permits and the types of waste and wastewater which may not be discharged into the sea are under study and a national committee that is include all the relevant institutions will be have been established. On the other hand EGA was responsible for Libya National Monitoring Program for the Mediterranean Sea, which is carried out mainly by the Libya Marine Research Center, EGA, National Agency for Scientific Research and National Universities. The overall goal of such activity was to provide a scientific basis for decision making with regard to the protection of the coastal environment, including enforcement of relevant national legislation and international conventions. The program includes the following components:

- Monitoring of heavy metals in coastal waters (Hamouda 1989);
- Monitoring of the introduction of nutrients and particulate metals into coastal waters
- Monitoring of nutrient levels and algal populations of the coastal waters (Kodah 2000);
- Monitoring of the biological effects of pollution of the coastal waters (Marine Research Center 1988).
- Estimation of the overall pollution load introduced into coastal waters derived from a database on point sources of pollution (Hamouda for Libyan Agency for Scientific Research 2004).

It is worth noting that the discharge of industrial and municipal wastewater into the sea is prohibited by Law 15 for the protection of the environment and regulated by a strict EGA permit procedure. EGA is just setting up a database for information about the discharge of industrial and municipal wastewater to the sea.

Water Pollution:

Law No (5) of 1969 on the organization and planning of towns and villages amended by law No. (3) of 2002. This law in addition to Law 15 of 2003 deals with the protection of ground water including the regulation of cesspools and septic tanks, these regulations impose prohibitions and restrictions on the construction of new cesspools and septic tanks and on existing ones, including timetables for the gradual elimination of cesspools under certain conditions. The regulations prohibit the construction of cesspools for industrial wastes and prohibit the construction of domestic cesspools

in settlements in which sewage systems already exist. A guidelines were recently setup by EGA for effluent quality standards and rules for sewage treatment in order to prevent the pollution of water resources from effluents and sewage. The guidelines list a number of parameters such as (BOD; COD, PH, total nitrogen, total phosphorus and total suspended solids etc.). This series of laws and guidelines regulates water quality in detail throughout the entire water and wastewater sector and covers the following topics:

- The variables that must be sampled
- The acceptable limits for each variable of interest
- The locations from which the samples must be taken
- The methods to be applied for taking the samples

These regulations require the local authorities to maintain the wastewater transport system in such a way that will ensure prevention of leakage and environmental hazards. Libya is party to several international agreements and conventions and to the EU inter alia co-operate in the context of the Environmental Strategy for the Mediterranean, developed under the Euro-Mediterranean Partnership and through the regional environmental activities carried out under UNEP's Mediterranean Action Plan.

It is worth noting that Libya is a signatory to all seven Convention protocols, although ratification is pending for some of them Libya participates in virtually all of the MAP's numerous components and is active in five MAP Regional Activity Centres (RACs). It has held a position on the MAP Bureau of Contracting Parties since 2008. Libya has signed various international environmental agreements.

Section 3. Critical gaps and opportunities to supporting country priorities

Libya, like its neighbouring countries, understands major and alarming changes on the natural resources and the environment. The negative impacts of climate change, desertification, limited natural fresh water resources and pollution constitute the main environmental challenges facing Libya. Currently, EGA is focusing on formulating a national strategy for solid and hazardous waste management, and strengthening environmental monitoring systems through the installation of laboratories that meet international standards, and make the GIS department more active. These initiatives are currently at various stages of completion. In order to respond to the gaps and constrains identified, and to strengthen the cooperation with the international organisations, EGA is trying to activate the existing working relationship with UNEP and UNDP and other organisations. It is now working on reactivating the production of the Libyan Atlas for Changing Environment in collaboration with UNEP and CEDARE. It is also working on the development of national plan for conservation and sustainable utilisation of various Libyan habitats based on the ecosystem approach, and on the development of a national system for public-private partnership for resource mobilisation for environmental management with national, regional and global perspectives.

In addition to that, EGA is formulation several capacity building programs for awareness raising, policy development and mainstreaming environment into development planning, implementation of MEAs, appropriate programs that will lead to a proper utilisation of knowledge of the existing resources as well as a reinforcement of national capacities, and particular attention will have to be given to environmental information generated by national observation and environmental monitoring programs already existing in the country.