

Government of Lebanon
Ministry of Environment

Industrial Pollution Management System¹

Beirut, Lebanon - 2013

¹ In accordance with the Decree for Environmental Compliance of Enterprises No 8471/2012

Introduction

Lebanon is facing now with disquieting environmental issues which have begun to threaten the country's sustainable development and the potential for future generations to have access to the resources necessary for their socio-economic needs. Lebanon's present legal and institutional framework has begun to prepare the country for resolving these issues. In the meantime, these efforts need to be reinforced. As described below, Lebanon has made substantial progress to move towards environment sustainability but many challenges remain to be met.

A Progress towards Environment Sustainability

Despite Lebanon's unstable political situation and weak economic performance, it has achieved substantial progress in its institutional and legal framework since the establishment of the Ministry of the Environment in 1993. Today the Ministry consists of 70 administrative technical staff in all the major environment themes, complemented by about 30 staff working in the context of internationally funded/managed projects. This Ministry works closely with the sector ministries such as the Ministries of Finance, Industry, Energy and Water, Public Works and Transport, as well with the Banque du Liban (BDL) and the Council for Development and Reconstruction (CDR) in mainstreaming environment in several sectors of the economy.

Lebanon also has a plethora of environmental laws and regulations as well as other legislations related to the environment. Most importantly are the Environment Protection Law 444/2002 which included all the principles of the Rio Declaration on Environment and Development (1992), as well the three major decrees: the Strategic Environmental Assessment (SEA) decree No 8213 of 2012 (the first enacted decree in the Middle East and North Africa Region to incorporate the environmental considerations at the early stage of the decision making process of policies, plans and programs); the Environmental Impact Assessment (EIA) decree No. 8633 of 2012 which is a prevention tool for predicting and mitigating adverse impacts in projects; and the Environmental Compliance for Establishments decree No. 8471 of 2012 that will regulate all activities that may cause harmful pollution and environmental degradation. All Enterprises will be required to apply for an environmental compliance certificate every three years as part of a construction or operation permit.

The judicial system in Lebanon has also been reinforced by the designation of a special general prosecutor in each of the five governorates to look inter alia at environmental issues and many of the judges were provided with training and jurisprudence cases to enable them to enforce the environmental laws and regulations. A draft law to establish an independent environmental prosecutor was prepared with World Bank assistance, approved by the Council of Ministers in 2012 and forwarded to Parliament. A draft decree for establishing the environment police was prepared and awaits clearance by the Ministry of Interior and Municipalities.

The MOE has also developed a series of policy tools for setting environmental- related priorities. In doing so, the MOE has relied on a number of processes, namely the National Environmental Framework Strategy of 1996 (updated in 2012/2013) followed by the draft National Environment

Action Plan of 2005 - which will be updated within the context of the EU funded Support to Reforms- Environmental Governance (StREG) Program (further described below) which define Lebanon's environmental priorities; the Lebanon Country Environment Analysis (CEA) of 2011 which linked national environmental priorities to priorities for sustainable growth; and the State of Environment Report (SOER) of 2010 which is an objective compendium on the state of the environment with some analysis of environmental trends and the future today. The MOE in partnership with GIZ has prepared a policy paper (2012) on industrial wastewater management and compliance, which provides a set of recommendations to move forward towards achieving industrial compliance for wastewater discharge; this policy paper is currently being turned into an Action Plan in close coordination with all stakeholders. Also the MOE UNDP assistance has prepared a business plan for combating pollution of the Qaraoun Lake along the Litani River.

The Ministry of Energy and Water Resources has also developed in 2012 The National Water Sector Strategy and the National Wastewater Strategy which, inter- alia, aim at: improving the water and wastewater quality by improving environmental standards and establishing pollution control programs; reaching pre-treatment of all industrial wastewater by 2020; and evaluating the environmental consequences of the proposed strategies through the preparation of an SEA which will be conducted in the third quarter of 2013. Also the National Strategic Plan of the Electricity (2010) calls for the use of sources of conventional energy which are environmentally friendly namely the use of natural gas, of renewable energy and waste to energy.

In addition to the policy tools that were developed, the Lebanese Government has invested in water, waste water and solid waste, an average of US\$200 million² a year between 1999-2008 or 1.3% of its GDP. Such percentage is considered by the CEA, as one of the highest among the Middle East and North African Countries. The BDL (Central Bank of Lebanon) is implementing an excellent initiative to support rural development and the environment through providing subsidy on interest rates to environmental projects and exemptions on compulsory reserves to stimulate commercial banks to grant concessionary loans to the environment sector and particularly to green investments.

All this progress could have not been achieved without the technical and financial support of many Development Partners working in Lebanon; among them are the AFD, EIB, EU, GIZ/KfW, Italy, The GEF, The Multi-Lateral Fund Protocol, UNDP, USAID, and the World Bank. The Development Partners succeeded not only in putting the issue of environment on Lebanon's environmental policy agenda, but in building the environmental infrastructure at the national level, and at the local level.

In order to support further Lebanon's policy, planning and investments in the environment sector, the MOE in collaboration with CDR is implementing, since 2007, a €8.5 million Environmental Fund for Lebanon (EFL) which is financed as a grant by the German Government through GIZ. This program aims at reducing environment risks and economic impacts of the 2006 war and of undeserved areas in Lebanon. Until now 6 industrial Enterprises have benefitted from this fund and have reduced their waste water pollution. Also EFL is providing TA to industrial Enterprises in Lebanon for the preparation of environmental investment plans which would form

² Lebanon Country Environment Analysis, 2011.

the basis for acquiring financial support. The Ministry obtained an €8.0 million grant from the European Union for the StREG Program. Its overall objective is to improve the environmental performance of the Lebanese public sector through environmental governance reforms. The program's specific objective is to build effective capacity within MOE to plan and execute environmental policy, including mainstreaming enforcement within key line-ministries. This program is scheduled to be implemented starting early 2014. Also, the GEF ReGoKo project and the World Bank are providing complementary TA in the amount of US\$200,000 and US\$80,000 respectively in developing and applying the procedures and the guidelines for the preparation of a CAP so that to have access concessionary loans and grants from BDL in order to finance their pollution abatement investments.

Several Challenges are still to be met

Despite considerable progress in shaping Lebanon's legal and institutional framework and providing substantial public funds for financing its infrastructure after the war, the MOE believes as the CEA stated that Lebanon is at the early stage of Lebanon's *transition* to environmental sustainability which remains low. Lebanon will not be achieving by 2015 the MDG target No.7 related to reversing environmental degradation in Lebanon. Lebanon's environment performance index (EPI) from 2012 shows that Lebanon is still ranked 94 among 132 countries indicating weak scores in environmental health and economic vitality in 2012. The cost of environmental degradation which is a measurement of environment sustainability and is related to the present welfare of the society was estimated by the CEA to be 3.7 % of GDP of 2005 corresponding at 970 million at 2008 prices. Water pollution remains the most prevailing cause of environmental damage and all the air pollutants increased in absolute terms over the period 2000-2005, which makes urban air pollution a growing problem. Furthermore, the enforcement and monitoring regime and the lack of disclosure of information continue to remain the weakest chain in the environmental management system.

A Proposed Industrial Pollution Management Policy (IPMP): A Cornerstone of Environment Sustainability

The Government believes that solutions aimed at remedying at Lebanese challenges should be implemented gradually and focusing first on those issues that are affecting public health and natural resources degradation. Addressing these issues should not be limited to policy statements and to investments that are disconnected from Lebanon's' environmental priorities. They should be driven by the performance record of the Government to engage in policy reforms, improve governance and accountability in specific and well defined pollution management systems that are considered to be the cornerstone for Lebanon transition to environmental sustainability.

The first comprehensive policy that the Lebanese Government would like to address with the assistance of its Development Partners is the establishment of an industrial pollution management system (IPMS). The reason for selecting the industrial sector is based on the premises that Lebanese industry is an important pillar of the economy contributing to about 21.5% of the country's GDP. Contrary to Lebanon's land use planning, many of the 71 industrial zones³ have been now surrounded and included among the urban areas. Industry also is a major

³ GIZ/MoE/CDR policy paper on Industrial Waste Water Management and Compliance, April 2012

contributor to pollution especially in industrial waste water, putting greater pressures on the environment, while becoming increasingly prominent and visible and is likely to negatively affect Lebanon's future investments in the water, waste water, energy and industrial sectors.

The proposed Industrial Pollution Management System (IPMS) will consist of a set of processes and practices that would enable the polluting Enterprises to control and reduce their pollution at an acceptable level, improve their environmental performance and promote their use of clean and efficient technologies.

Since this will be the first system that the MOE plans to introduce, the IPMS will be based on the following principles:

- a) **Understanding the Lebanese Political Economy:** The proposed system should take into consideration the Lebanese reality which is usually based on a consensus between the different interest groups. Trying to provide solutions that may be optimal in other countries could not be transposed to Lebanon without understanding Lebanon's political economy.
- b) **Maximizing the Participation of Major Stakeholders:** The success of such system depends on the involvement of major stakeholders that could have different objectives and benefits other than pollution management such as competitiveness and financial benefits. These stakeholders consist of five major groups: (a) the government; (b) the private and public polluting Enterprises; (c) the financial institutions; (d) the judiciary; and (e) the civil society organizations. No one group should take precedence over another. The collaboration and cooperation of each group are essential for reaching common agreement on how best to maximize an effective pollution management system as these groups will act as checks and balances on one another.
- c) **Piloting the system:** The introduction of this system should be on a pilot basis in which both the process and the product are important for experimenting these tools and assessing them on a roll-over basis.
- d) **Voluntary Participation:** The implementation of this system should be on a voluntary basis during a period of 2-3 years in which the MOE and the Ministry of Industry will effectively strengthen their monitoring and enforcement regime at the national and regional levels. When such monitoring and enforcement regime will be strengthened and be coupled with a mechanism of recourse to justice, The MOE will not rely on a voluntary approach and it will require that polluting Enterprises will strictly comply with the Lebanese standards and guidelines.

Based on the above principles, the Government is prepared to put in place during the pilot phase, the following processes and tools for the implementation of the IPMS namely:

- a) Reinforcing the Compliance and Enforcement System within the MOE, and at broader national level through the six Inter-Ministerial Permitting Committees (IPCs) which is headed by the Ministry of Industry (MOI)

- b) Establishing an Environment Compliance Fund at the BDL for financing industrial pollution investments through selected commercial banks
- c) Fostering partnership with the Association of Lebanese Industrialists (ALI), with the Chamber of Commerce, Industry and Agriculture (CCIA) and selected NGOs to be the advocate in encouraging industries to comply on a voluntary basis with the Lebanese environmental regulations provided that an incentive system is put in place.

In order to achieve these objectives, the following actions will be taken:

A. Reinforcing the Compliance and Enforcement System

Such reinforcement will consist of optimizing the existing compliance tools and strengthening the relevant services/ departments at the MOE.

The following inter-related tools will be introduced:

- a) The Compliance Action Plan (CAP), a core section of the Environmental Audit, as a requirement from benefiting from soft loans and economic incentives. The CAP is intended to improve the overall environmental performance of a polluting Enterprise; and enable the Enterprise to move towards compliance with the Lebanese environmental regulations. It will be a commitment document for each Enterprise to develop a comprehensive pollution abatement plan, agree on its content with the MOE and on its financial and human resources over a period of realistic duration; and
- b) The Environment Compliance Certificate as required in the decree 8471/2012 which will be put in operation on a voluntary basis during the first period (as of the second half of 2013). It will be a tool for integrated pollution control and management by defining legally binding requirements to protect human health and the environment at the plant level and will complement the CAP.

Concerning the strengthening of the relevant services/departments, it will consist of three systems namely:

1. The Environment Impact Assessment (EIA) system, within the Environmental Technology Service
2. The Environmental Compliance committee, within the Urban Environment Service
3. The Monitoring and Enforcement system

The EIA system will be strengthened by preparing EIA sector guidelines and terms of reference for EIA and audits of polluting Enterprises that represent significant risk to human health and the environment such as cement, fertilizers, tanneries, metal and chemical industries, slaughterhouses and large agro business industry. Recently, all EIAs included in the EIA decree No. 8633 of 2012 have been submitted for public consultation and access to these EIA reports facilitated to the public by the MOE.

A new Environmental Compliance Committee will be designated within the Urban Environment service that would: (a) provide technical support on pollution control technologies and their costs to the industry; (b) develop an information system on polluting Enterprises; (c) assist the polluting Enterprises in the development and follow-up of their Compliance Action Plans; and

(d) negotiate, issue and follow up on the environment compliance certificate as called for in the MOE decree No. 8471 of 2012.

The Monitoring and Enforcement system will be strengthened within the context of the EU funded StREG Program by: (a) developing and providing specific guidelines for monitoring and enforcement that would be shared with the polluting Enterprises; (b) establishing clear and transparent environmental rules and regulations for the private sector for self-monitoring and inspections; and (c) inspecting polluting Enterprises in accordance with an annual plan, reviewing and verifying the emissions and discharges charges, imposing fines and taking non-compliant industries if necessary to court.

The six Inter-Ministerial Permitting Committees chaired by the Ministry of Industry will be strengthened as they are responsible for issuing the final permit for construction and operation to all industrial Enterprises in their respective governorates. The MOE will be prepared to provide TA and training to its members on industrial pollution control. Each of these committees should be able to follow up on the monitoring aspect the environment compliance certificate and ensure its collaboration with the polluting Enterprises, which is essential for their buy in and for meeting their realistic actions for pollution control.

B. Establishing an Environment Compliance Fund.

The present enforcement system as described in law 444/2002 is based on the Command-and-Control (CAC) approach whereby all Enterprises should abide by the air and water standards with no grace period provided. Many industries were found not in compliance with existing environmental laws, regulations and standards. Many claim that the environmental law, standards and regulations were not in effect when they made the necessary investments and many of them do not even have a license to operate, yet their facilities generate pollution. In order to help resolve such situation, the MOE would like to establish a complementary strategy to CAC that would ensure environmental compliance while improving the environmental performance of the Enterprises and could in turn lead to an increase in their production and competitiveness in general. Experiences from developed countries and emerging economies show that such CAC must be complemented by an incentive-based approach to encourage polluting Enterprises to comply with the terms of the law and improve their production.

As stated above, the BDL through its circular No. 187 is providing subsidized loans to industry (establishment/expansion of industrial Enterprises). It has also expanded its subsidized loans to include ecological loans to individuals through circular No. 7835 for renewable energy, green investments, preservation of cultural heritage and landscaping, these loans were not exclusively used for pollution control. BDL has agreed to establish a specific window named “Environment Compliance Fund” to enable the polluting Enterprises to have access, through selected commercial banks, to a combination of one-time grants and concessionary loans for pollution control investments. Participating banks will be allowed to either use a portion of their mandatory reserves to offset the interest rate spread or use the recent BDL’s Incentive 2013 issued as an intermediate circular No. 313 of 2013 (in case these banks have maxed out their mandatory reserve) to recoup their spread charged on the polluting Enterprises.

The BDL and MOE have designed, with the assistance of the World Bank, the financial engineering for this environment compliance fund. It will enable to move towards budget neutrality with the Ministry of Finance and adopt a win-win-win approach: BDL and the Participating Banks will recuperate their sub-loans and make profits, the environment will benefit as pollution will be controlled, and Enterprises will receive near-zero-interest loans, which means that they will repay less than they have borrowed provided that they comply with the legal environment requirements in the Environmental Compliance Environment.

C. Communication and Awareness Raising

Communication and awareness raising constitute an instrumental element to achieve the objective of the IPMS. A well-designed communication and awareness raising activities will contribute to the needed shift to behaviours, approaches, and practices related to industrial pollution control. Although the intention is to reach and involve a diversified set of stakeholders, it will be more appropriate during the pilot phase, to focus primarily on private sector industrialists represented by the Association of Lebanese Industrialists (ALI) and with the Chamber of Commerce and Industry and Agriculture (CCIA) and selected NGOs in the pollution control field. ALI is the main national association of manufacturing companies operating in Lebanon. It deals with both economic and social issues concerning business and advocates a policy of balanced industrial development for all Lebanese regions. CCIA represents the interests of the private economy, contributes to the formulation of economic policies and to the elaboration of legislation that impacts business activity, develops partnership and dialogue between the business sector and the government, and provides a broad array of services to Enterprises. Both stakeholders are fully convinced that protecting the environment is good for business and for improving the performance and competitiveness of their Enterprises. Furthermore a limited number of selected NGOs, whose constituencies are actively involved in pollution control, will be also participating in the environmental awareness and communication campaigns.

The MOE intends to sign a memorandum of understanding with these partners in which they are expected to: (a) raise awareness about possible solutions to challenges and opportunities of controlling pollution and improving environmental performance; (b) stimulate the adoption of pollution management policies/practices, including the adoption of clean technology; (c) encourage the flux of information among industrialists to obtain their environment compliance certificate and have access to concessionary loans and grants for pollution control; and (d) stimulate the creation of synergies and cooperation with relevant pollution control initiatives, organizations and projects co financed by the development partners. Since each one of the partners has a particular mandate and set of responsibilities, the best methods of communication and awareness raising are considered those transmitting well-targeted messages. As such, the actions proposed will be a combination of publications, consultation meetings and events that will be defined by mutual agreement in the memorandum of understanding.

Implementation of the Industrial Pollution Management Policy

The Government of Lebanon is making substantial efforts to implement the industrial pollution management policy through projects that could be financed by its Development Partners. The

World Bank has allocated a US\$15 million loan for a Lebanon Pollution Abatement Project (LEPAP) whose objective is to reduce pollution in targeted industrial Enterprises and strengthen the monitoring and enforcement capabilities of the MOE through TA and through establishing a financial mechanism for supporting pollution abatement investments. This project is under preparation GIZ has committed a grant amount of US\$500,000 and GEF has allocated US\$200,000 through the Regional Governance and Knowledge Generation Project (ReGoKo) of the Sustainable Med Program for participating in LEPAP. Assistance was also sought for the European Commission, the Agence française de Développement, the Italian Cooperation (who decided in June 2013 to give a grant of US\$3 million), and the Republic of South Korea who will hopefully be able to join in this very important project. Meanwhile LEPAP, once financed, will work in synergy with the EU financed StREG Program as it will prepare a national environmental compliance program (NECP) to cover major sectors that would affect the economy as well as to strengthen the environmental capacity of other sector ministries. The MOE also prepared below a set of actions with a time schedule to proceed with the implementation of this project.

ACTION SCHEDULE

Elements	Responsibility
Ministerial Decision highlighting terms, conditions, procedures and guidelines for the implementation of the Environment Compliance decree	H.E. the Minister of Environment
Appointment of a Project Management Unit (PMU) with responsibilities and functions to complete the design and implement LEPAP	H.E. the Governor of BDL
Ministerial Decision to nominate a Compliance Committee within the Urban Environment Services and to appoint a Project Management Unit (PMU) with responsibilities and functions to complete the design and implement LEPAP	H.E. the Minister of Environment
Signing a Convention between BDL and the MOE for providing concessionary loans and grants for pollution abatement investments	H.E. the Minister of Environment/H.E. the Governor of BDL
Publication on the web site of the Ministries of Environment, and Industry, as well as BDL of the procedures, terms and conditions for accessing concessionary loans and grants for pollution abatement investments	MOE/PMU, MOI and BDL
Preparation of a pipeline of audited sub-projects for potential financing by BDL	PMU/EFL
Preparation of Matrix of Responsibilities between the various departments of the MOE	MOE
Preparation of an annual program for monitoring and enforcement	MOE and the Inter ministerial Permitting Committee
Selection of Participating Banks for LEPAP	BDL/Participating Banks/ PMU
Memorandum of Understanding for the implementation of the communication and environmental awareness campaigns	MOE with ALI, CCIA and selected NGOs