REPUBLIC OF LEBANON
MINISTRY OF ENVIRONMENT

Project funded by the
European Union

A Summary of the

Practical Guide for Municipalities to Enhance Environmental Management

2016

The Lebanese Ministry of Environment has commissioned and overseen the preparation of this report

This publication was produced with the support of the European Union

Production: This Guide was prepared by StREG (Support to Reforms - Environmental Governance), a programme funded by the EU (European Union), upon commission and with the overview of the MoE (Lebanese Ministry of Environment). The Guide was prepared in collaboration with UNDP (United Nations Development Programme) and BTVL/CGLU (Bureau Technique des Villes Libanaises / Cités et Gouvernements Locaux Unis).

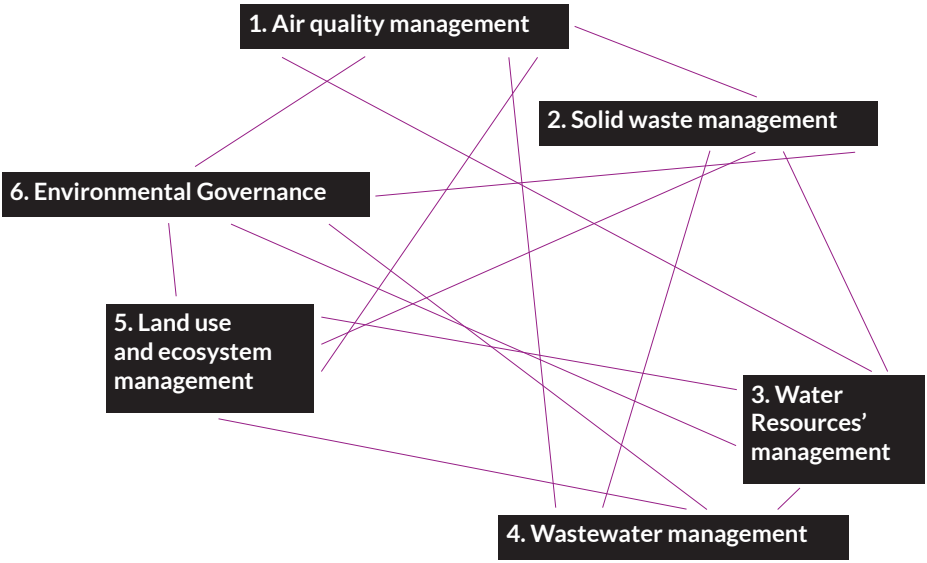
A Summary of the

Practical Guide for Municipalities to Enhance Environmental Management

2016

Introducing the Guide & Its Methodology

The municipality is the closest authority to citizens due to the important developmental role that it can play on several levels, for it has the authority of decision-making in all projects within its domain. As such, this practical guide addresses municipalities and municipal unions, and it stresses on their role in reducing the environmental degradation in the following six sectors:



Currently, these sectors suffer from a lack of communication and coordination among the different stakeholders, as well as weak communication between the central and local authorities. This situation has been exacerbated by the demographic pressure witnessed in Lebanon since the onset of the Syrian conflict in 2011, which has resulted in nearly 1.8 million displaced persons in Lebanon. As such, this guide comes to shed the light on the major laws, decrees, decisions, and circulars governing these sectors, and clarifying municipal mandate in these sectors.

Specifically, each of the six chapters of the guide is organized according to the following structure:

1. **The legal and institutional framework that regulates municipal work within the sector in question**
2. **Environmental problems that municipalities face**
3. **Measures and actions that can be taken by municipalities to solve these challenges**
4. **Case studies featuring Lebanese municipalities that have succeeded in soundly managing their environmental problems**
5. **Samples of municipal decisions that municipalities can use in their decisions and interventions**

In terms of methodology, this guide relied upon the *State and Trends of the Lebanese Environment* report (2010), prepared by the Ministry of the Environment and the United Nations Development Programme, especially in addressing the judicial and Institutional frameworks as well as existing problems. In addressing the additional pressures caused by the Syrian conflict, the guide relied upon the MoE-EU-UNDP report *Lebanon Environmental Assessment of the Syrian Conflict and Priorities for Intervention* (2014).

Furthermore, delegates from Lebanese municipalities across all provinces have been consulted to assess and review the content of the six chapters, and the guide was turned to delegates from various ministries to the same end.

This guide does not seek to impose decisions; it merely lays down food for thought and suggests measures that can be used by municipalities, after adapting them to local conditions and constraints.

Worth noting is that this guide will refer to municipalities and municipal unions through the term "municipalities".

1. Air Quality Management

There are five sectors that have a negative impact on air quality in Lebanon:

1. The transport sector

- The transport sector is the main source of air pollution in Lebanon
- It comprises of cars, trucks, and diesel-fueled mass transport vehicles

2. The energy sector

- The energy sector is also a major contributor to air pollution nationally
- The energy sector includes:
  - Power plants
  - Private generators
  - Private power plants owned by hotels, malls, and large industries (such as cement factories)

3. Industrial and classified establishments

- This sector comprises of establishments that produce air pollutants:
  - Industries (cement factories, paper and cardboard factories, wood factories...)
  - Other classified establishments (farms and gas stations)

4. The solid waste sector

- The decomposition of waste in dumpsites results in air pollutants and foul odors
- Haphazard waste burning is a source of air emissions that are very harmful to the air quality as well as public health

5. The agricultural sector

- Foul odors result from the use of manure as a fertilizing substance on farmlands

Procedures and measures that municipalities can adopt to address air quality management:

1. For land transport:

- Set up implementation procedures for monitoring the compliance of vehicles with annual mechanic inspection
- Organize public spaces as to encourage soft transport / non-mechanic modes
- Create and activate local services of public transport
- Conduct awareness campaigns
- Lay down traffic plans that facilitate circulation and reduce congestion

2. For the energy sector:

- Enforce the compliance of private generators to the technical conditions required
- Monitor the height of exhaust pipes
- Conduct regular patrols on private generators
- Set fines and issue penalties against generators that are not compliant with technical standards

3. For industrial and classified establishments:

- Encourage establishments to abide by construction regulations promoting energy efficiently
- Adopt the concept of "clean/green production" in the industrial sector
- Create industrial zones in relative distance from residential areas
- Check the compliance of delivery trucks with technical standards
- Establish a database of industrial and classified establishments, including those with and without permits

4. For solid waste:

- Ban waste burning, and impose fines on transgressors
- Transfer waste in a way that is both envionmentally sound and frequent, thus preventing wastes from piling for prolonged periods of time
- In the short term, cover up waste piles with soil regularly (daily or semi-weekly) to limit emission of odors due to decomposition of waste
- In the medium term, respond to air pollution from open dumps through the immediate closing down and rehabilitation of dumpsites

2. Integrated Solid Waste Management

Municipalities face four problems in the sector of Integrated Solid Waste Management (ISWM):

1. Legislative & institutional problems

- The lack of needed legislation for Integrated Solid Waste Management (ISWM), and the weak enforcement of existing legislation
- Continuous changes in administrative mandates on ISWM
- Overlapping administrative mandates on ISWM
- Lack of inspection with regard to open dumpsites

2. Financing problems

- The lack of a taxation system in the solid waste sector that is based on the "Polluter Pays Principle"
- Delay in the transfer of funds from the state budget to the Independent Municipal Fund and thereon to municipalities

3. Awareness problems

- At the individual level, people tend to consume excessively, and there is limited reuse of wastes leading to extensive waste generation
- At the collective level, a strong prevalence of NIMBY (Not In My BackYard) thinking when tackling collective, inter-regional interventions for ISWM

4. Technical problems

- Lack of existing ISWM plans at the local level
- Lack of sufficient technical expertise in ISWM at the municipal level

Procedures and measures that municipalities can adopt to address ISWM:

1. Legally and institutionally:

- **Train the municipal police to monitor dumpsites, and to work against their formation**

2. For financing aspects:

- **Dedicate a post within the municipal staff dedicated for resource mobilization opportunities**
- **Improve the tax collection service within the municipal domain**

3. For awareness aspects:

- **Design and launch intensified awareness campaigns on sorting from the source, where the Integrated Waste Management Hierarchy is observed**
- **Increase environmental activities and themes in academic curricula in collaboration with concerned educational institutions**

4. For technical aspects:

- **Cooperate with neighboring municipalities and unions of municipalities for knowledge-sharing and implementation of joint interventions**
- **Strengthen the technical capacity of municipal staff by using the technical, administrative, and monitoring training opportunities offered by donors**
- **Prepare local plans and general programs about ISWM as per existing legislation**
- **Create a database about open dumpsites within the municipal domain (in preparation for their rehabilitation)**

3. Water Resources Management

Municipalities face three types of problems in the sector of water resources management:

1. Depletion of groundwater resources

- The number of private wells has risen dramatically in recent years
- The number of unlicensed private wells is greater than that of licensed wells
- Wells have begun to dry out or to witness an increase in salinity

2. Depletion of surface water resources

- The balance of water resources has been on the down, especially during the dry season

3. Pollution of groundwater and surface water resources

- The quality of groundwater and surface water is adversely impacted by the following factors:
    - The random discharging of wastewater into waterways
    - The discharging of municipal and industrial solid waste to waterways
    - Overuse of fertilizers and pesticides

Procedures and measures that municipalities can adopt to address water resources management:

1. For the depletion of groundwater resources:

- **Ban the digging of wells deeper than 150 meters**
- **Double-check the information provided by owners of wells in the course of the licensing process**
- **Conduct regular field monitoring on wells**

2. For the depletion of surface water resources:

- **Prepare a database of existing resources of surface water**
- **Encourage the collection of rainwater and its reuse**
- **Check violations pertaining to the misuse (or outright waste) of water resources**
- **Encourage water conservation among industrial and classified establishments**

3. For the pollution of groundwater & surface water resources:

- **Coordinate with the Ministry of Water and Energy (MoEW) and the Water Establishments to transfer sludge and wastewater to wastewater treatment plants, instead of dumping them in water bodies**
- **Ban the discharging of municipal and industrial solid waste in waterways, and impose fines on violations**

4. Wastewater Management

Municipalities face three types of problems in the sector of wastewater management:

1. Legislative and institutional problems

- Contradictory measures for the reuse of treated wastewater
- Delays in establishing and operating wastewater treatment plants

2. Financial problems

- Public debt in Lebanon constitutes one of the major challenges that block the construction, operation, and maintenance of systems for the collection and treatment of wastewater

3. Infrastructural problems

- Wastewater treatment plants in Lebanon continue to be unable of treating large quantities of wastewater, where the percentage of wastewater treated in 2014 did not exceed 8%
- Industrial wastewater gets mixed with domestic wastewater, although it contains a high amount of inorganic pollutants that could be damaging for the operating systems of treatment plants
- Sceptic tanks continue to be drilled in a way that does not comply to environmental standards and national criteria
- There are persistent problems is the terminal drainage of wastewater from sceptic tanks

Procedures and measures that municipalities can adopt to address wastewater management:

1. Legally and institutionally:

- **Cooperate with neighboring municipalities and unions of municipalities to expedite the construction of needed wastewater infrastructure**
- **Provide Water Establishments with the needed information about buildings and industries existing within the municipal domain**
- **Coordinate with the Council for Development and Reconstruction (CDR) in the construction of infrastructure for wastewater treatment (including wastewater treatment plants) and the construction and maintenance of sewage networks**
- **Withhold construction permits until compliance with technical standards for wastewater treatment is confirmed**

2. For financing aspects:

- **Dedicate a post within the municipal staff for resource mobilization opportunities**
- **Improve the tax collection service within the municipal domain**

3. For infrastructural aspects:

- **Coordinate with the Ministry of Water and Energy (MoEW) and the water establishments to transfer sludge and wastewater to wastewater treatment stations, to avoid their haphazard dumping**

5. Land Use & Ecosystem Management

Municipalities face three types of problems in the sector of land use and ecosystem management:

1. Haphazard urbanization

- Due to poor regional planning and lack of adherence to construction systems, many lands are susceptible to haphazard urbanization
- Quarries that do not adhere to environmental regulations cause irreparable damage to nature as well as public health

2. Loss of the green cover and agricultural areas

- Protection of forests is weak, and some are cut down for commercial reasons
- Forest fires are rampant due to both natural and human-made factors
- Overhunting constitutes a hindrance to the protection of natural ecosystems
- Overuse of pesticides and fertilizers is adversely effecting the land and water quality

3. Loss of the urban and historical heritage

- During the Post-War era, many reconstruction initiatives resulted in the destruction of urban heritage
- Rocketing real estate prices continue to have a catastrophic effect on urban heritage

Procedures and measures that municipalities can adopt to address land use and ecosystem management:

1. For haphazard urbanization

- **Expedite the process of removing all construction violations**
- **Inform concerned ministries of all violations**

2. For the loss of green cover and agricultural areas

- **Make sure that laws and regulations concerning forest protection are observed**
- **Conduct training for the municipal police and forest wardens**
- **Implement reforestation programs**
- **Adopt the principle of land use planning for the protection of classified lands such as agricultural areas, as well as environmentally sensitive sites and areas prone to flooding**
- **Protect water springs by the proper adoption of land use planning**
- **Conduct training for the municipal police to monitor the proper adoption of land use planning**

3. For the loss of urban and historical heritage

- **Prepare a database of existing historical buildings within the municipal domain**
- **Control building permits as per Legislative Decree 118 of 30 June 1977**
- **Conduct training for the municipal police in order to enhance its capacity in monitoring building permits**

6. Towards an Integrated Environmental Management

6.1 Environmental Impact Assessments

An Environmental Impact Assessment (EIA) consists of the following stages:

1. Classification

The Project Owner communicates with the Ministry of Environment (MoE) to have his/her project classified

2. Within a 15-day period, the MoE informs the Project Owner about its decision concerning the project:

a. An EIA is not required

The Project Owner proceeds with the project as planned

b. An EIA is required

c. An Initial Environmental Examination (IEE) is required

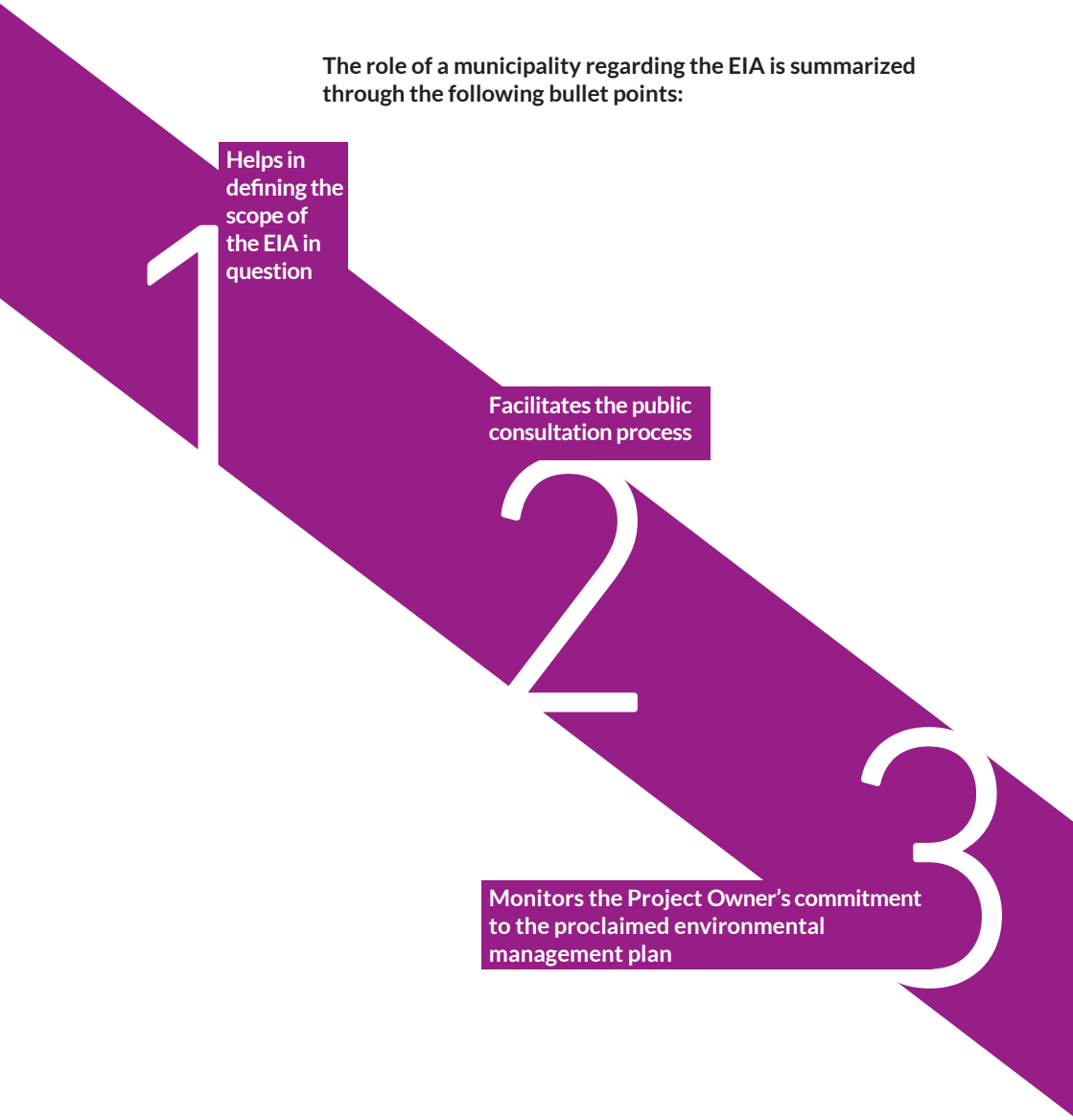
3. In case an EIA or an IEE were required

The Project Owner commissions a consulting firm to conduct it

4. Within a two-month period, the MoE informs the Project Owner about its decision:

a. Approval
b. Conditional approval
c. Refusal with justification

The role of a municipality regarding the EIA is summarized through the following bullet points:



6.2 Environmental Compliance

Environmental Compliance (EC) consists of the following stages:

1. The establishment prepares a study for EC, and obtains the approval of the MoE

2. The establishment applies its environmental management plan, and that is done by establishing an environmental management system within the establishment

3. The establishment documents its environmental management system, and that is done by preparing reports on environmental self-compliance

4. The establishment applies for an EC certificate

5. The MoE issues its decision about the application for the EC certificate, whether positive or negative with justification

A municipality disposes of a number of tools to make sure that the enterprise which obtained an EC certificate is indeed honoring its legal obligations:

1. **If a complaint is filed by residents who neighbor the establishment, the municipality can inform an Environmental Prosecutor of an environmental offense**
2. **A municipality can file a complaint to the MoE to conduct an inspection on any establishment suspected of being a source of nuisance**
3. **In July 2014, the Ministry of Justice assigned a number of Prosecutors and Examining Magistrates for environmental affairs to be able to judicially follow up on environmental problems**