



NATIONAL POLICIES FOR THE ESTABLISHMENT OF WATER & AQUATIC ENVIRONMENT PROSECUTION AND MAGISTRATES SYSTEMS IN TWO SWIM FOCUS COUNTRIES

- LEBANON -

ACTIVITY 1.2.10

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The SWIM Program (2010 – 2014)

Contributing to Sustainable Water Integrated Management in the Mediterranean

Funded by the European Commission with a total budget of approximately € 22 million, Sustainable Water Integrated Management (SWIM) is a Regional Technical Assistance Program aiming to contribute to the effective implementation and extensive dissemination of sustainable water management policies and practices in the South-Eastern Mediterranean Region in view of increasing water scarcity, combined pressures on water resources from a wide range of users, desertification processes and in connection with climate change.

The SWIM Partner Countries (PCs) are: Algeria, Egypt, Israel, Jordan, Lebanon, Libya¹, Morocco, Palestine, Syria and Tunisia.

SWIM aligns with the outcomes of the Euro-Mediterranean Ministerial Conferences on Environment (Cairo, 2006) and Water (Dead Sea, 2008) and also reflects on the four major themes of the draft Strategy for Water in the Mediterranean (SWM), mandated by the Union for the Mediterranean, namely: Water Governance; Water and Climate Change; Water Financing and; Water Demand Management and Efficiency, with particular focus on non-conventional water resources. Moreover, it is operationally linked to the objectives of the Mediterranean Component of the EU Water Initiative (MED EUWI) and complements the EC-financed Horizon 2020 Initiative to De-Pollute the Mediterranean Sea (Horizon 2020). Furthermore, SWIM links to other related regional processes, such as the Mediterranean Strategy for Sustainable Development (MSSD) and the Arab Water Strategy elaborated respectively in the framework of the Barcelona Convention and of the League of Arab States, and to on-going pertinent programs, e.g. the UNEP/MAP GEF Strategic Partnership for the Mediterranean Large Marine Ecosystem (Med-Partnership) and the World Bank GEF Sustainable Mediterranean.

The Program consists of two Components, acting as a mutually strengthening unit that supports much needed reforms and new creative approaches in relation to water management in the Mediterranean region, aiming at their wide diffusion and replication.

The two SWIM Components are:

- A Support Mechanism (SWIM-SM) funded with a budget of € 6.7 million and
- Five (5) Demonstration Projects funded with a budget of approximately € 15 million

For more information please visit <http://www.swim-sm.eu/> or contactinfo@swim-sm.eu

¹The situation in Spring 2012 is that following formal EC decision, activities have been stalled in Syria while Libya has officially become a Partner Country of the SWIM Program



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List of Acronyms

Lebanon	
MEW	Ministry of Energy and Water
MPH	Ministry of Public Health
ME	Ministry of Environment
LLB	Lebanese liras
HDP	hydraulic public domain
PEWS	Public establishments of water and sanitation



Executive Summary

Objective of the project

The overall objective of the SWIM-Support Mechanism (SM) program component is to promote the extensive dissemination of sustainable water management policies and practices in the region in the context of increasing water scarcity, combined pressure on water resources from a wide range of users and desertification processes, in connection with climate change. The specific objectives of the SWIM-SM are:

- To raise the awareness of decision-makers and stakeholders in the Partner Countries on existing and upcoming threats to water resources, on the necessity to switch to more viable water consumption models as well as on possible solutions to face the challenges.
- To support the Partner Countries in designing and implementing sustainable water management policies at the national and local levels, in liaison with on-going relevant international initiatives.
- To contribute to institutional strengthening, to the development of the necessary planning and management skills and to the transfer of know-how.

The legal and institutional capacities available in the country are key factors for prosecution of water offences. Assessing those capacities is a prerequisite to the elaboration of special and general recommendations. This includes evaluating administrative measures to compel, special authority orders, compliance through court action (injunctions, prosecution) and penal prosecution with corresponding sanctions.

Objective of Activity 1.2.10

The general objective of Activity 1.2.10 is to assist in establishing prosecution and magistrate systems to enforce compliance of the regulated community with water and aquatic environment regulations. This general objective is detailed through 4 specific following objectives:

1. Identification of policies, technical and regulatory measures to strengthen the coordination among water relevant sectors for defining the water activities classification, the permitting system and the related administrative sanctions.
2. Proposing amendments to the penal sanction classification and definitions to fit a large number and most common violations experienced in each of the two SWIM focus countries.
3. Proposing an action-oriented plan for creating and/or enhancing a corps of specialized engineers for developing sufficient inspectorate capacity force at relevant administrative level. and finally
4. Design a national capacity building training program including study tours for prosecutors and magistrates to enable them prosecute water and aquatic environment violations in courts of law.

Methodology of Activity 1.2.10

The methodology implemented during Activity 1.2.10 was designed around the inputs and outputs gathered during the kick-off meeting. This important work meeting was aimed to present SWIM activity 1.2.7 and to discuss the objective and scope of the present activity. The meeting was held at the national level within the premises of the relevant ministry and restricted to the main stakeholders from relevant sectors. It took place on the 15th and 16th October 2015 in the MEW buildings in Beirut.



As a result to these work sessions, several options were presented to the stakeholders. Discussions and debates have let the MEW headquarter staff to agree on a list of feasible solutions to amend the enforcement of water legislation, taking account of the Lebanese situation. These selected solutions are presented in the following sections of this report.

Results of Activity 1.2.10

The general objective of Activity 1.2.10 to improve compliance with water and aquatic environment regulations. As a result, the 4 following categories of solutions have been designed:

1. A **set of national policies and measures, in each focus country, to strengthen the integration and horizontal coordination** to ensure compliance with water regulations, including clear definition of water violations, permitting and authorization systems, and their relevant administrative sanctions.
2. A list of **amendments to the national penal sanction classification and definitions** to fit the maximum number of most common violations experienced in each of the two SWIM focus countries.
3. An **action-oriented plan in each focus country that will lead to the creation and/or improvement of a corps of water and aquatic environment specialized engineers and technicians**. This will include measures for developing adequate inspectorate capacity force at relevant administrative level.
4. A well designed feasible **national capacity building training programs and study tours** for prosecutors and magistrates to enable them prosecute water and aquatic environment violations in courts of law.



Introduction

The overall objective of the SWIM-Support Mechanism (SM) program component is to promote the extensive dissemination of sustainable water management policies and practices in the Mediterranean region in the context of increasing water scarcity, combined pressure on water resources from a wide range of users and desertification processes, in connection with climate change. The specific objectives of the SWIM-SM are:

- To raise the awareness of decision-makers and stakeholders in the Partner Countries on existing and upcoming threats to water resources, on the necessity to switch to more viable water consumption models as well as on possible solutions to face the challenges.
- To support the Partner Countries in designing and implementing sustainable water management policies at the national and local levels, in liaison with on-going relevant international initiatives.
- To contribute to institutional strengthening, to the development of the necessary planning and management skills and to the transfer of know-how.

The legal and institutional capacities available in the country are key factors for prosecution of water offences. Assessing those capacities is a prerequisite to the elaboration of special and general recommendations. This includes evaluating administrative measures to compel, special authority orders, compliance through court action (injunctions, prosecution) and penal prosecution with corresponding sanctions.

During **preliminary Activity 1.2.7, institutional and legislative capacities needed for the prosecution of non-compliance with water legislation** in three selected countries, namely Lebanon, Algeria and Jordan, were assessed. Most of the assessments and experts gathering indicated that the regulated communities in SWIM-SM countries are lacking adequate prosecution and magistrate systems to support compliance with the water and aquatic environment regulations.

Guidelines were catered for countries of the SWIM region in order to develop their institutional and legislative capacities to prosecute and adjudicate noncompliance and enforce legislations. This entailed recommendations for amendments in water and environmental legislations, suggestions of institutional structures and legal procedures for the judiciary system to address violations, capacity development needed for prosecutors and judges, operational systems and mechanisms for systematic enforcement of legislations, basic rules in assessing sanctions that commensurate with degree of violation, etc.

Based on the guidelines & policy options developed by the project to improve compliance and enhance national enforcement capacities, SWIM-SM has undertaken the present activity in two focus countries (Lebanon & Palestine). **The general objective of Activity 1.2.10 is to assist in establishing prosecution and magistrate systems to enforce compliance of the regulated community with water and aquatic environment regulations.** This general objective is detailed through 4 specific following objectives:

1. Identification of policies, technical and regulatory measures to strengthen the coordination among water relevant sectors for defining the water activities classification, the permitting system and the related administrative sanctions.
2. Proposing amendments to the penal sanction classification and definitions to fit a large number and most common violations experienced in each of the two SWIM focus countries.
3. Proposing an action oriented plan for creating and/or enhancing a corps of specialized engineers for developing sufficient inspectorate capacity force at relevant administrative level. and finally
4. Design a national capacity building training program including study tours for prosecutors and magistrates to enable them prosecute water and aquatic environment violations in courts of law.



The general objective of Activity 1.2.10 to improve compliance with water and aquatic environment regulations has directed the experts to design the **4 following specific results**:

1. A set of national policies and measures, in each focus country, to strengthen the integration and horizontal coordination to ensure compliance with water regulations, including clear definition of water violations, permitting and authorization systems, and their relevant administrative sanctions.
2. A list of amendments to the national penal sanction classification and definitions to fit the maximum number of most common violations experienced in each of the two SWIM focus countries.
3. An action-oriented plan in each focus country that will lead to the creation and/or improvement of a corps of water and aquatic environment specialized engineers and technicians. This will include measures for developing adequate inspectorate capacity force at relevant administrative level.
4. A well-designed feasible national capacity building training programs and study tours for prosecutors and magistrates to enable them prosecute water and aquatic environment violations in courts of law.

The structure of the report is composed of the **5 chapters**. The first chapter is dedicated to identification and assessment while the four subsequent chapters are dedicated to propositions of measures.

The existing institutional and judiciary capacities to appropriately put on trial cases of water violations and the identification of the main achievements, gaps, constraints, challenges and opportunities available to prosecute and adjudicate cases of non-conformity (systems, mechanisms, legal procedures, trained prosecutors and judges responsible for water and environment, etc.) have been carefully assessed. The **first chapter** of this report consists of an identification and assessment of **policies, technical and regulatory measures to strengthen the coordination** among water relevant sectors in order to ensure compliance with water and aquatic environment regulations.

Four categories of measures are proposed to undertake in order to develop adequate institutional and legislative capacities needed to appropriately prosecute and adjudicate noncompliance and enforce water and legislations. These 4 categories of measures are presented in the four subsequent chapters of the report.

The **second chapter** is dedicated to the development and/or enhancement of **administrative sanctions**.

The **third chapter** is examining the possibilities of amendment of **penal sanction** classification and definitions to fit most common violations.

The **fourth chapter** develops an action oriented **plan for designing and/or upgrading a corps of water and aquatic environment specialized engineers** and expand inspectorate capacity force at relevant administrative level.

The **fifth chapter** sets out the design of a national **capacity building training and study tours program** for prosecutors and magistrates.



1 Identification and assessment of policies, technical and regulatory measures to strengthen the coordination among water relevant sectors in order to ensure compliance with water and aquatic environment regulations

The improvement of the classification of water activities can be made possible by harmonizing administrative sanctions in the global context of environmental framework policies. Water resources protection in Lebanon must be accomplished by assessing both the coordination and integration among water relevant sectors and the enforcing and permitting system. After identifying the bottlenecks and opportunities for harmonizing administrative sanctions, we will suggest propositions of institutional and legislative reforms to strengthen coordination.

1.1 Assessment of the coordination and integration between the enforcing and permitting system among water relevant sectors

An assessment of the current coordination and integration among water relevant sectors has been realised through a short desk review/synthesis of existing documentation. The objective is to define all possible water-related (quantitative and qualitative) activities that have a potential impact on the aquatic environment. At the same time, an assessment of the enforcing and permitting system was realised through a short desk review and synthesis. The objective is to secure the management of authorisations and appraisal of their related administrative sanctions.

Lebanese water legislation is sectorized between different categories of waters and by several administrative authorization regimes. Four categories of rules have been identified depending on the nature of the water: hydraulic public domain, drinking water, wastewater and basin management. Accordingly, there are three permitting systems related to water sector which are delivered by different ministries (MEW, MPH and ME).

1.1.1 Hydraulic public domain

The Lebanese hydraulic public domain (hereafter named 'HPD') covers a relatively large definition. Its protection, in particular through article 89 of the Constitution² and stringent penal sanctions is one of the most important components of water legislation. Consequently, secondary legislation³ is in line with this large definition.

² Article 89 of the Lebanese Constitution of 23 May 1926 « *Il est interdit de céder n'importe quel affermage ou concession pour exploiter une des ressources naturelles du pays, ou n'importe quel service d'intérêt public, ou n'importe quel monopole, sauf en vertu d'une loi et pour une durée de temps limitée.* ».

³ Arrêté n° 144/S du 10 juin 1925 relatif à la délimitation et l'occupation temporaire du domaine public. Article 2, font notamment partie du domaine public :

- « *Le rivage de la mer jusqu'à la limite du plus haut flot d'hiver et les plages de sable ou de galets.*
- *Les marais et étangs salés communiquant directement avec la mer.*
- *Les cours d'eau de toutes sortes dans les limites déterminées par la hauteur des eaux coulant à pleins bords avant de déborder.*
- *Les eaux souterraines et les sources de toute nature.*
- *Les francs bords des cours d'eau, c'est-à-dire la bande de terrains située le long de leur cours qui en permet la surveillance, le curage et l'entretien.*



The Article 3 of the 'Arrêté n° 320 du 26 mai 1926 relatif à la conservation et l'utilisation des eaux du domaine public' declares that waters coming from non-gushing wells can be used without any authorization when they are drilled from a private property and when the flow is inferior to 100 m³ per day, at the condition that these wells do not represent a hidden water withdrawal from a river or a source. Above this threshold volume, an authorisation completed by a concession act and technical specifications are required. All these documents are delivered by the administration.

According to Ministry of Energy and Water (hereafter names 'MEW'), there is about 60 000 undeclared wells (including those which are under the 100 m³ volume threshold).

Since 1970, there is a permitting system for prospection and utilisation of crude water. Authorisation applications are addressed to the MEW who is responsible to require complementary information and proceed to appropriate investigations to instruct the dossiers.

According to a Decree of the 2nd of May 1970, it is forbidden to proceed to works of water prospection before reception of due permission. Drilling non gushing wells of less than 150 m deep is only submitted to information of the administration. The use of non-gushing wells waters is exempted of permit if the extraction is inferior to 100 m³ per day.

Notwithstanding permits delivered by MEW for the utilisation of HPD, Article 1 of By-Law n°320 of 26 May 1926 has foreseen a comprehensive list of prohibited actions⁴

- *Les lacs, étangs et lagunes dans les limites déterminées par le niveau des plus hautes eaux avant débordement avec une zone de passage de 10 mètres de large à partir de ces limites sur chaque rive.*
- *Les chutes d'eau susceptibles de production de force motrice.*
- *Les canaux de navigation et leurs chemins de halage; les canaux d'irrigation, de dessèchement, de drainage, et leurs francs bords, les aqueducs, lorsque ces ouvrages sont exécutés dans un but d'utilité publique. Les dépendances de ces ouvrages font également partie du domaine public.*
- *Les digues maritimes ou fluviales, les sémaphores, les ouvrages d'éclairage ou de balisage ainsi que leurs dépendances. (...) ».*

⁴ List of interdictions related to DPH according to Article 1 of By-Law n°320 :

« 1.- D'empêcher le libre écoulement des eaux du domaine public ;

2.- D'empêcher de quelques manières que ce soit, sur les limites des francs-bords des cours d'eau temporaires ou permanents des marais, des lacs, étangs et lagunes, des sources ainsi que sur les limites d'emprise des aqueducs, des conduites d'eau, des canaux de navigation, d'irrigation, de dessèchement et de drainages dont l'exécution a été déclarée d'utilité publique.

Toutes les constructions préexistantes peuvent être entretenues et réparées sous la double restriction qu'il ne sera fait aucune augmentation aux dimensions extérieures et que les matériaux employés seront les mêmes que ceux précédemment mis en oeuvre ;

3.- De faire aucun dépôt, aucune plantation, ou culture sur les francs-bords et dans le lit des cours d'eau temporaires ou permanents, dans les lacs, marais, étangs et lagunes ainsi qu'entre les limites d'emprise des conduites d'eau, aqueducs, des canaux de navigation, d'irrigation, de dessèchement et de drainage dont l'exécution a été déclarée d'utilité publique ;

4.- D'enlever des gazons, des arbres, des arbustes, des terres ou pierres des francs-bords ou du lit des cours d'eau temporaires ou permanents, des lacs, marais, étangs et lagunes ;

5.- De curer, d'approfondir, redresser ou régulariser les cours d'eau, temporaires ou permanents.

6.- De pratiquer des excavations, de quelque nature qu'elles soient, à une distance de la limite des francs-bords des cours d'eau, des aqueducs, des canaux de navigation, d'irrigation, de dessèchement et de drainage, moindre que la profondeur des dites excavations sans que cette distance puisse être inférieure à 3 mètres ;

7.- D'effectuer des travaux de recherches ou de captage d'eaux souterraines ou jaillissantes.

Toutefois peuvent être exécutés sur les propriétés privées, sans autorisation, les forages des puits non jaillissants dont la profondeur ne dépasse pas cent cinquante mètres ;

8.- D'une manière générale d'entreprendre un travail quelconque permanent ou temporaire, susceptible d'avoir une influence sur le régime ou l'écoulement des eaux du domaine public. »



Infringements can be established through report done by inspectorates of public works, harbour officials, forestry and customs, constable and police officers, and any other person commissioned for police and public domain conservation. Competent jurisdictions and applicable penalties are defined in By-Law n° 320 (Article 57 to 60).

1.1.2 Drinking water protection

Historically in Lebanon, the Ottoman Civil Code, the *Medjellé*, set the first legal rules to protect water resource. These rules are still in force and impose protection areas at appropriate distance from the sources in order to avoid degradation of the quality and to allow the use of running water by riparian owners.

Drinking water is a municipal responsibility. Historically, protection of drinking water is a rather important preoccupation. A 1932 Decree-Law organises the responsibilities of collecting, diversion and adduction for urban zones of 500 inhabitants minimum. According to its Article 17, head of municipalities and *mokhtars*, for rural localities are responsible of monitoring drinking water, under the control of the Director of Public Health and Social Assistance (Which belongs to Ministry of Public Health, hereafter names 'MPH').

Since 1942, a permitting procedure was created for drinking water adduction projects. The 1st October 1942 Decree-Law n° 227 foresees that the permits shall be delivered by MPH after a hydrogeological survey and a water quality analysis.

In case of non-respect of the Decree-Law n° 227, the MPH can impose any disposition that may be necessary in order to make water ready for consumption. If after a first notice, the situation has not been arranged, the MPH is entitled to order realisation of the necessary works on behalf of the owner of the concession.

Various rules are dedicated to the protection of drinking water facilities. Article 18 of the Decree-Law indicates that drinking water sources shall be protected by well-defined zones, according to By-Law n° 320 in its Article 2⁵. The Decree-Law forbids establishment of building, well, pit or any construction which may pollute water inside these zones. Troughs shall be installed at sufficient distance to protect wells and sources.

1.1.3 Environmental industrial - Wastewater legislation

In Lebanon, wastewater treatment plants are the property and responsibility of municipalities. Maintenance operations are financed and proceeded under the responsibility of central administration (Ministry of Interior).

A 1932 Decree-Law imposes collection of wastewater by users based on the specifications edicted by the Director of Public Health and Social Assistance (Article 19).

Following the 2000 Law organising water sector, the Ministry of Justice edicted the principle upon which wastewater management is under the responsibility of Public establishments of water and sanitation (hereafter named "PEWS") even if the public network has not been installed yet. Les Municipalities remain owners of the networks which have been constructed at this local level (Note du Comité du 29 janvier 2004).

⁵ « Les limites de la zone de protection sont fixées dans chaque cas, par décision du Chef de l'Etat ou de l'autorité à laquelle il aura délégué ses pouvoirs à cet effet. »



Finally, the Law n° 444 creates an environmental permitting system for each and every industrial plant and in particular for wastewater treatment plants. The existence of potential secondary legislation or related coercitive measures in the field of water in particular, couldn't be verified. Generally speaking, the implementation of an "*integrated natural resource management*" couldn't be verified either.

According to Article 21 of the 1932 Decree-Law, once doesn't fulfil its obligations, the prefect is entitled to order the Municipality to proceed to necessary works at the expenses of the offender. A 1964 Law is defining the most serious intentional crimes (see table below). Discharge of wastewaters in the environment may be prosecuted criminally (see table below).

1.1.4 Integrated water resource management

It's only recently since the first rules for the protection of water as a natural resource were elaborated in Lebanon. It was the case in Law n° 444 of the 29 July 2002 on environmental protection. The general objective of this text is to reach an integrated environmental protection beyond protection of HPD. In particular, this Law is aiming at protection of any form of natural water against risks of pollution; protection of the ecosystems and environmental equilibriums; development of natural resources considering its economic value and its repartition among multiple utilisations.

According to Law n° 444, the achievement of these objectives is conditioned by an "*integrated natural resource management*" (Art. 35-2) to be elaborated through common decisions between MEW and Ministry of Environment (hereafter 'ME'). These common decisions are applicable to variety of actions including risks of water pollution⁶.

1.2 Bottlenecks and opportunities for harmonizing administrative sanctions

Based on the undertaken assessments, the achievements, shortcomings, obstacles, gaps, challenges and opportunities in harmonizing administrative sanctions in national policies have been carefully identified.

1.2.1 Interministerial cooperation

In most countries, there is a lack of interministerial coordination related to water, even if the competences in that field are belonging mainly to a single ministry. So, the interdepartmental coordination is to be enforced at operational level through an interministerial/interdepartmental committee, composed of representatives of either different ministries (not ministers themselves...) in charge of water or various directorates inside the ministry in charge of water.

1.2.2 Sectorisation versus integrated water management

In many cases, laws related to water are scattered around several laws dedicated to either quantity or quality issues, State-owned streams and groundwaters or sewage etc. These various laws have to be gathered and merged into a single unitary Water Law according to the Integrated Water Resources Management (IWRM) including as well quantitative and qualitative aspects, a status for water, preservation of aquatic ecosystems and wetlands from faunistic and floristic offences.

⁶ « *L'écoulement, la submersion, le déversement, le stockage, directs ou indirects, de produits qui pourraient provoquer la pollution des eaux de surface ou souterraines, ou qui pourraient augmenter la détérioration de sa qualité en modifiant ses caractéristiques physiques, chimiques, biologiques ou bactériologiques.* » (Art. 35-3).



1.2.3 Classification of polluting activities

Consequently, the various existing systems of permits in the field of water are to be merged into a simple one through a nomenclature (or classification) stating from a comprehensive point of view the whole range of actions likely to jeopardize the water resources and the aquatic ecosystems, according to correspondent technical thresholds beyond which each action is likely to be submitted to a permit.

1.2.4 Information and data quality

Obviously, the above mentioned recommendations imply the setting out of a minimum effective controlling, measuring and monitoring system based on reliable data and operated through samplings and analyses carried out respectively by well-trained field agents and accredited laboratories in order to ensure further credibility of indicting evidence.

1.2.5 Financial incentives

The permitting system has to be coordinated, if possible at the hydrological basin level, with a system of incentives in countries where such an approach should be economically realistic (existence of an appropriate financial resource such as oil industries in Algeria). There should be a fees system based on as clear and deterrent assets as possible, possibly accompanied as a second step with subsidies returning to the water abstracters or polluters who make an effort to decrease the estimated quantity of water they abstract or the quantity of pollution they discharge.

1.3 Propositions of institutional and legislative reforms to strengthen coordination

Based on the above assessments and identifications, the object of this paragraph is to suggest propositions of reforms. These propositions consist in technical and regulatory measures to strengthen coordination and integration of water resources management and necessary institutional and legislative reforms to ensure water resources protection through better compliance with water and aquatic environment regulations. **Two propositions** would appropriately reinforce institutional and legal capacities to strengthen coordination.

1.3.1 Reinforce interministerial cooperation at central level by creating new institutions

Since the 2000 Law reforming the water sector, the MEW has received a clear mandate to evaluate, establish regulations and monitor water quality. The 2004 Law for environmental protection foresees a reinforcement of cooperation between ME and MEW, in particular for an integrated management of natural resources, including water. Today, one can admit that this collaboration is only theoretical. This situation is due to administrative habits but also absence of practical mechanism to share information and/or discuss policies.

In this perspective it is highly recommended that Lebanon starts working on the creation of a new central institution entirely dedicated to water issues. This **(political) national water committee** of policy makers could be composed of members of the parliament, of the administration and renown experts. This national committee could design the main tracks and be requested for advice about draft laws



concerning water. At this level, penal environmental orientations should be discussed. Draft penal laws should be prepared before parliamentary adoption.

This national committee should be supported by a **(technical) task force or action group** of high-level engineers belonging to water related ministries (MEE, ME, MPH, Ministry of Agriculture). This task force or action group would be in charge of coordinating ministries' actions and priorities. In particular, this group could profitably work on harmonizing administrative procedures, sanctions and priorities in enforcement. It could also be an adequate arena for discussing available human resources for constitution of environmental corps of inspectors.

At this level, the permitting systems, which do not necessarily need to be merged in a unique authorisation dossier, could be better synchronized in order to avoid risks of inconsistencies due to excessive sectorial independence between administrations.

Most important, administrative measures against persons who benefit from the permit must be conducted with the same procedure, whatever the ministry which delivered the permission. Coercive measures against violators who did not comply with regulatory procedure to request for a particular permit, must be identical. When the permit is missing or when the technical specifications has not been respected, the enforcement agents must use a standardized protocol. The environmental corps of engineers shall also share appropriate level of information with other ministries.

1.3.2 Transform public establishments of water and sanitation into basin organisations for integrated management

Public establishments of water and sanitation have been created in 2000 and are responsible of the planning, project management, conducting operations of works and maintenance for irrigation and drinking water inside their zone. These zones do not correspond to a physical hydrologic territory but rather an administrative mapping. These establishments are controlled by the MEW.

The PEWS are stand-alone legal entities and are financially independent. The MEW elaborates a national masterplan for water and sanitation which is planning the allocation of hydraulic resources between drinking water and irrigation. Their role at basin level should be reinforced by new responsibilities and resources. Several propositions would be beneficial the PEWS in order to develop administration's local capacities for water legislation enforcement:

- **Establish the responsibility of the PEWS for integrated water resource management at basin level.** As a consequence, the national master plan should be decentralized into a basin pacification document elaborated and controlled under PEWS's responsibility.
- **Create a water police responsibility of the PEWS to control works, plants and facilities.** Their agents should actively participate to the enforcement of water laws as local members of the water inspection corps of engineers.

Nowadays PEWS agents are not entitled to proceed to controls or establish findings of offences or misconduct. They have no ability to control technically plants and facilities while they are locally based and seem to be the most accurate administrative actor in the chain of command to do so. In coordination and in conjunction with central administration agents, the PEWS should be able to identify penal offences and deviations to technical specifications. The role of the PEWS should be deeply reconsidered from a rubber stamping and a tax collection to a field and enforcement administration.

These profound reforms can be made possible by a renewed financial system. The PEWS resources should be enlarged by a more efficient tax system in order to economically reinforce their power of action (investments, action programs, etc.). Annual tax collection should be based on withdrawal and discharges of water. By creating this tax system, the PEWS could hire new agents who would be necessary for the accomplishment of their newly adopted responsibilities. Today, existing human



resources at PEWS level are considered to be largely insufficient for the implementation of the proposed reform.

In addition to the tax collection, the PEWS could also benefit from the administrative financial fees pronounced in case of disrespect to the applicable technical specifications embedded in the delivered permit. More generally, and as a conclusion on this important topic which is out of the scope of this report, one should say that the economic cycle of water is insufficient. The price of water and its collection, an incentive tax system based on polluter-payer principle are some of the most challenging priorities in the sector for the next years.



2 Development and/or enhancement of administrative sanctions

In Civil Code countries ruled under a double system of both administrative and judicial courts, a better use is to be made of administrative sanctions such as administrative penalties, consignment corresponding to the estimated amount of money required to restore the damaged environment, penalty imposed on daily basis until the damage caused to the water resources or the aquatic ecosystem is repaired, suspension of a permit, closing out of an installation in the worst cases of infringements. Within such context, the two following activities have been undertaken:

1. Assessment of the current administrative sanctions and identification of areas for improvement including the development of sanctions that are deterrent enough and graduated according to the seriousness of the infringement.
2. Design and/or amendment of current administrative sanction system with the aim of maximizing compliance with water and aquatic environment regulations without resorting to judiciary systems.

2.1 Assessment of administrative sanctions and identification of improvements

2.1.1 Assessment of the current administrative sanctions

HPD		
Description of action	Applicable sanction	Complimentary measures
Infringement to HPD (By-Law n°320 of 26 May 1926)	200 to 250 LBP ⁷ penalty and/or 1 day to 6 months of imprisonment. Penalties can be doubled in case of repetition of the offence within 18 months	When a penal infringement has been conducted to damage public domain, repair and reclamation are at the charge of the offender.
Water robbery (Law n°623 of 23 April 1997 about penalties related to electricity, telephone and water)	Minimum of 1 million LBP and/or 3 months to 3 years of imprisonment. Penalty is worsened to a minimum of 1 year of imprisonment and 3 million LBP when there water meter is damaged.	
In times of peace or war, partial or complete damage or sabotage of public hydraulic equipment (reservoirs, pumping stations,	Penal servitude during 3 to 10 years and 1 million LBP. Additional repair and reclamation due to partial or	

⁷ Au 30 juillet 2014, 2000 livres libanaises (LBP) sont équivalentes approximativement à 1 €



filtrations, pipelines, sewage networks) (Law 1997)	complete damage is at the charge of the offender.	
Articles 745 to 748 of the Lebanese Penal Code foresee 1 year and/or imprisonment and a 500,000 LLB fee for anybody who realised a drill for collection water without permit, except for wells installed on public properties and less than 150m deep, which are not submitted to authorisation.		
The 1970 Decree refers to Article 770 ⁸ of the Penal Code for anybody who would proceed to prospection or utilisation of water in breach with the Decree.		
Wastewater		
Description of action	Applicable sanction	Complimentary measures
Discharge of wastewaters (from a non-collective sanitation) (1932 Decree-Law)	1 to 2 months of imprisonment	
Connection to sewage network without authorisation (1932 Decree-Law)	500 to 1000 LLB fee	
Digging a pit for wastewaters (1932 Decree-Law)	1 to 2 months of imprisonment	
Discharge of substances that may cause damage to public waters (Article 748 of Lebanese Penal Code)	Up to 2 year of imprisonment and a 500,000 LLB fee	
Discharge of deadly substances (1964 Law)	Death penalty or 10 years of imprisonment when the caused risk is considered non-lethal	

⁸ « *Violer les règlements administratifs ou municipaux délivrés conformément à la loi sera puni d'un emprisonnement de trois mois et d'une amende de 100 000 à 600 000 livres, soit une de ces peines.* »



2.1.2 Identification of areas for improvement including the development of sanctions

In countries ruled by Civil Code such as Lebanon, there is a double system of separate administrative and judicial courts. In such case, it is profitable to **make a better use of administrative sanctions** such as administrative penalties, consignment corresponding to the estimated amount of money required to restore the damaged environment, penalty imposed on daily basis until the damage caused to the water resources or the aquatic ecosystem is repaired, suspension of a permit, closing out of an installation in the worst cases of infringements. However, in order to prevent some misuses from the administrative authority, such sanctions are to be well-defined, preceded by a formal notice and strictly framed, considering for example the conditions of access and control of the installations, the respect for the property and individual rights. These sanctions have to be graduated according to the seriousness of the infringement and deterrent enough. One of **their advantages is to be quicker than the penal sanctions due to the duration of the procedure at the judicial courts.**

The improvement of the classification of water activities can be made possible by harmonising administrative sanctions in the global context of environmental framework policies. Water resources protection is likely to reach an appropriate level of exhaustiveness by strengthening the coordination and the Integrated Water Resources Management (IWRM) through defining all possible water-related activities that have a potential impact on environment and enforcing a permitting system under quality assurance to secure the management of authorisations

2.2 Design and/or amendment of current administrative sanction system

Nowadays, committing infringements to the laws of protection to the HPD exposes to administrative sanctions carried out by MEW. This central administration is composed of an insufficient number of agents to proceed to a comprehensive control of water activities. ME and MPH only play a role of control in their specific fields, sometimes in connection with water but rarely in coordination with the MEW. In particular, the ME only benefits from limited and recently established possibilities to prevent pollution and monitor polluting activities that may have an impact on environment (including water).

The Lebanese legal framework is too heterogeneous and misses a clear designation of the authorities in charge of observation of misconducts, offences and enforce water legislation as a whole. As a consequence, the action of Lebanese administration as a whole is not easy to identify, apart from sectorial actions implemented by each concerned ministry in its area of competence.

2.2.1 Pre-requisites to the administrative sanction amendment

Several pre-requisites are necessary to the amendment of current administrative sanction system. In particular there is a few statements that needs to be agreed between the concerned ministries:

1. Reach a consensus between MEW, ME, MPH (and also at least Ministry of Industry and Ministry of Agriculture) on the necessity to design a common sanction system. This would allow the harmonisation of administrative sanctions in case of non-respect of a legal or regulatory disposition, a permit or technical specifications.
2. Reach a consensus between concerned ministries on the necessity of allowing their respective agents to note any misconduct that they may observe (including when it is in breach with any regulation). This infers that controllers and inspecting agents of different administrations must communicate to each other, breaches they may observe, in transparency and good will.



2.2.2 Proposition of a common set of general administrative measures

The existing list of administrative sanctions presented above could possibly be completed with a set of administrative coercitive measures which could be common to any sector. These administrative sanctions could be pronounced by any administration's sworn agent who belongs to the inspectorate corps of engineers.

- Formal notice procedure within certain time-limit to comply with the law, regulations or permit, leaving the infringer a reasonable length of time to regularize the situation.
- After formal demand remained ineffective, realisation of necessary works by the administration, on the account and the risk of the infringer.
- Consignment of the estimated amount of money required to restore or compensate the damaged area.
- Daily based penalty to be paid until termination of the damage caused to the water resources or the aquatic ecosystem.
- Generalisation and more systematic use of the administrative fines.

Administrative actions are less resource-intensive compared to judicial civil and criminal cases which require a higher level of formalization in the procedures. Criminal cases are the most difficult to pursue as they require sophisticated investigation to determine the source of pollution, its impact and the possible alteration of records. Criminal law procedures require the highest standard of proof. It includes the difficulty to prove the violator's intentions (Mere wilful commitment or simple disregard). Civil judicial action are intended at correcting unbalanced patrimonial situation by ordering compensation for the loss or depreciation of once' property (land, belongings, wells, dams including water resources or any environmental amenity).



3 Amendment of penal sanction classification and definitions to fit most common violations in Lebanon

In parallel to the construction of a solid administrative measures system, the criminal legislation should enforce water law through deterrent measures. In order to follow the societal demand for environmental protection, large scale policies have to be conceived and implemented by countries against water and aquatic environment violations. A clear, simple and deterring system of top-level criminal offences appears to one of the most efficient means that the regulating authorities can undertake to motivate compliance.

Within such a context, two core activities have been undertaken while considering national specificities. Special emphasis shall be given to social acceptability, technical feasibility and potential implementation. The two main activities include:

1. The determination of central administration(s) and relevant sectors to be involved in the elaboration of an environmental criminal code at the national level.
2. The definition of the environmental criminal offences to be covered by criminal legislation aiming at the prosecution of grave offences with regard to water and aquatic environment. Penalties to be included in the regulations to be proposed should consider inclusion of fines or imprisonment or both and court orders that accompany a fine or imprisonment.

3.1 Determination of central administration(s) and relevant sectors to be involved in the elaboration of an environmental criminal code

The role of top-level politics is significant to initiate and succeed in an environmental criminal law reform. The aim of this section is to use lessons learnt from other countries, take account of specificities of the Lebanese context but not to present procedural details of elaboration, formulation and publication of environmental criminal law. Political context in the fall of 2015 is questioning the possibility of conducting such reform. It requires stable government and assembly to be appropriately debated. Anyhow, a lot of preparatory work still needs to be done at technical level in coordination between the various concerned ministries.

3.1.1 Assessment of the current institutional situation

The initiative shall be operated by one or more ministries. Ministry of Environment (ME) and Ministry of Energy and Water (MEW) should be sitting first and be strongly represented. Secondly, Ministry of Public Health, Ministry of Agriculture, Ministry of Industry, Ministry of Interior (or National affairs) and Ministries of Justice should also be associated and actively included in the process.

In the Lebanese case, Ministry of Environment should carry the leadership upon the task of formulation all propositions of criminal criteria and responses, except when it deals with water issues, where Ministry of Energy and Water should be directly involved. A peculiar situation in Lebanon forces the two central administrations to coordinate deeply and share all relevant information. ME should take the lead on designing the frame of the system (architecture, sections, scales of penalties, e tc.) and also define most of the criminal environmental offences including general ones. When these definitions also concern water resource, then MEW should be directly associated. When these definitions only concern water resource, then MEW should take the lead.

Existing institutional organisation should not be considered as a barrier for reforms. Relatively recently, the Ministry of Environment shall be considered as the most appropriate organ for carrying such a



reform. Indeed, criminal legislation must be profitably designed as a global corpus of coherent legal dispositions. In addition, a successful reform of criminal legislation could be more easily reached by the more recently created ME with open-mindedness regarding environmental issues. For obvious reasons, MEW has concentrated on quantitative approach with little attention paid to qualitative issues or even less to ecological approaches. This tropism has historical and legal statutory reasons.

3.1.2 Proposition of a interministerial task force

In order to build up a criminal law to fight environmental offences, a clear mandate should be officially foreseen by the Government to the ME to elaborate and propose an environmental criminal legislation to be adopted at the highest level of legal hierarchy by the Parliament.

A task force of top-level engineers, regulators and lawyers shall be appointed to elaborate the scope and content of the criminal environmental code. This task for shall be composed of representative agents of:

- Ministry of Environment
- Ministry of Energy and Water
- Ministry of Public Health
- Ministry of Agriculture
- Ministry of Industry
- Ministry of Interior (or National affairs)
- Ministry of Justice

As a starting point, the task force of top-level engineers of the said ministries shall conduct an inventory of existing legislation or draft legislation (Strengthening the Environmental Legislation Development and Application System in Lebanon (Strengthening the Environmental Legislation Development and Application System in Lebanon (SELDAS), SWIM outputs, draft Water Code, etc.).

3.2 Definition of the environmental criminal offences and penalties

Following the societal demand for environmental protection, contemporary politics are progressively taking account of development and complexity of environmental criminology. Environmental criminal issues can also be considered as sensitive topics when the country is facing political instability or bad financial situation. Lebanese society perfectly illustrates this conflicting tendencies between important traditional political challenges (corruption, sectarianism, security) and the growing of more modern preoccupations (environment, tourism...).

3.2.1 Identification of most stringent priorities and stakes

The observation made locally in Lebanon is that environmental criminal legislation, is still recent and scattered. The environmental protection law *per se* is only 15 years old. Unfortunately, this major step still needs to be fully enforced and taken in consideration by every administration, including the MEW.

During the 2000 – 2014 period of time, about 200 cases have occurred about environmental issues within Civil and Penal jurisdictions. During the same period of time, only a dozen cases were judged in front of the “*Conseil d’Etat*”. Among the 200 cases, only 10 were related to water issues including 6 of



them being administrative cases and 4 were Civil or Penal cases. Fees pronounced were included between 10 and 250 million LLB. Only one imprisonment was pronounced against an offender realised works without preliminary impact assessment.

The objective of amending the penal sanction classification and definitions is to fit the largest number and the most common violations in order to reach sufficient deterrence. On the other hand, in order to guarantee effectiveness of this process, penal definition should also remain specific enough to be implemented by the court during the qualification process. The definition of environmental criminal offences and penalties shall always be done keeping in mind the risk of blurring too many actions, and so creating regulatory instability and poor legal security for citizens.

It is consistent to have a global process including a definition of all environmental offences at the same time. Criteria of pollution are kept relatively general, so that a sufficiently large number of actions fit into the criminal definition. For instance, a crime of pollution or fauna / flora destruction may embed any type of offence, including passive, that might cause temporary or permanent damage to the ecosystem, either it might directly impacting a river bed, an aquifer, a wetland, a coastal zone, or affecting water resources by indirect consequence of a pollution in the river basin... etc.. This allows having a relatively broad level of definitions. This also helps to create a homogeneous set of sanctions, harmonized in terms of financial penalties and imprisonment.

The potential consequences of the pollution compromising the use of the water resources for producing drinking water, irrigating or hydropower for instance shall be considered as a worsening criteria when pronouncing the sanction. Equally, the bad faith of the offender or the volunteer intention shall also be taken in consideration in the definition, without leaving too much power of appreciation to the judge. The sanction corresponding to the criminal definition shall be precisely defined in order to deter violators from committing and to avoid enforcement being minored by too many material circumstances that might be taken into consideration by courts.

The environmental criminal presented below are aiming at prosecution of particularly gross offences considering the human beings' natural basis of life, especially air, water, soil, flora and fauna. Sanctions foreseen should be pecuniary fines as well as imprisonment. None of the provisions regarding environmental misdemeanours shall stipulate imprisonment terms longer than three years. Only when the offence may have conducted to the death of a person, it shall be classified as crime *per se*.

Endangerment of the environment should be sufficient to fulfil the substantial elements of the misdemeanour of potential environmental damaging. Proof of the damage itself or the causality link shall not be necessary.



3.2.2 List of proposed penal qualifications and sanctions

Considering that criminal laws bear a strong social impact on the population, a clear, simple and deterring system of top-level criminal offences appears to be one of the most efficient means that the regulating authorities can undertake to motivate compliance. An environmental penal system, applicable to physical persons and to moral persons, efficiently completes administrative system of ticketing and sanctions.

Description of action	Applicable sanction	Comment
Intentional or negligent impairment of the environment	Imprisonment up to three years, in cases of significant damage: Up to five years, in cases resulting in serious injuries or deaths of a person/several persons even up to life imprisonment	-
Throwing, pouring or letting pass by in superficial, subterranean waters or waters of the sea, directly or indirectly, one or several any substances which reactions entail, even temporarily, harmful effects on the health or the damage in the flora or in the fauna.	Up to 2 years of detention and for 75 000 € of fine (115 000 000 LLB).	Same actions causing significant modifications of the water supply or limitations of use of the zones of bathing are equally punished. The court can also impose on the condemned person to proceed to the restoration of the aquatic environment
Throwing or abandoning waste in important quantity in superficial or subterranean waters or in waters of the sea within the limits of territorial waters, on the beaches or on the banks of the sea.	Up to 2 years of detention and for 75 000 € of fine (115 000 000 LLB).	The court can also impose on the condemned person to proceed to the restoration of the aquatic environment
Conducting works or operations without considering the circulation of migratory fishes.	Up to 75 000 € of fine (115 000 000 LLB).	-
Conducting works or operations without considering the minimal flow	Up to 75 000 € of fine (115 000 000 LLB).	-
Conducting works or operations without considering the flow allocated to a use in the public interest	Up to 75 000 € of fine (115 000 000 LLB).	-
Placing biocidal product or the active substance on the market	Imprisonment up to 2 years and 75 000 € fine (115 000 000 LLB).	-



Leave, deposit or make someone else deposit any waste	Imprisonment up to 2 years and 75 000 € fine (115 000 000 LLB).	-
Intentional or negligent endangerment of the environment by the treatment and transport of waste	Imprisonment up to two years or pecuniary fines up to 360 daily rates of income ⁹ , in cases of significant damage up to three years, in cases resulting in serious injuries or death of a person/several persons even up to life imprisonment	Fines are indicated for physical persons. Fines for moral persons shall be doubled.
Intentional or negligent endangerment of the environment by the operations of installations	Imprisonment up to two years or pecuniary fines up to 360 daily rates of income, in cases of significant damage up to three years or pecuniary fines up to 360 daily rates of income, in cases resulting in serious injuries or death of a person/several persons even up to life imprisonment	Fines are indicated for physical persons. Fines for moral persons shall be doubled.
Intentional or negligent endangerment of fauna or flora and protected species and habitats	Imprisonment up to two years or pecuniary fines up to 360 daily rates of income	Fines are indicated for physical persons. Fines for moral persons shall be doubled.
Intentional or negligent endangerment of a habitat within a protected site	Imprisonment up to two years or pecuniary fines up to 360 daily rates of income	Fines are indicated for physical persons. Fines for moral persons shall be doubled.
Other intentional or negligent endangerments of flora and fauna	Imprisonment up to two years or pecuniary fines up to 360 daily rates of income	Fines are indicated for physical persons. Fines for moral persons shall be doubled.

As a conclusion of this section, the above discussed reform should be the occasion to raise a major difficulty in the Lebanese system: access to environmental justice. Lebanon is not a member party to the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. Anyhow, the contribution of civil society and in particular environmental non-governmental organisations is largely proven when amending environmental protection coercitive system. Civil society should not only be associated in the elaboration the criminal environmental code but should also be considered as an essential actor of enforcement (whistle-blowers). As a consequence, Lebanon should urgently adopt a legal disposition allowing NGOs to act as parties in criminal trials.

⁹ As an example, some of the fines are based on financial capacities of the offender instead of a fixed maximum amount.



4 Develop an action oriented plan for designing and/or upgrading a corps of water and aquatic environment specialized engineers and expand inspectorate capacity force at relevant administrative level in Lebanon

The power of any administration can easily be measured by its means, its organization and its procedures. Strong water coercive legislation must be backed by clear designation of specialized water and environment inspectorate. This corps has to be legally defined, its powers must be clear and it must benefit of a public recognition and legitimacy. In order to materialize the above concept the following activities have been undertaken:

1. Assessment of the capacity of current inspectorates with the aim of identifying the gaps and suggesting the measures to bridge them.
2. Suggestions for the creation or the improvement of an existing inspectorate, especially competent in the field of water and aquatic environment, composed of qualified, motivated and well-trained staff and identify the appropriate technical and administrative structures of the suggested and/or reformed inspectorates.
3. Assessment and identification of the suitable local levels of administration that is most appropriate for operating the controls in coordination with the central national level.
4. Development of a practical plan of action to create and/or enhance a corps of specialized water and aquatic environment engineer and inspectors to ensure compliance with water regulations.

4.1 Assessment of the capacity of current inspectorates

Institutional capacities in the field of water are relatively weak in Lebanon. Notwithstanding the high level of education of the administration personnel in general, ministries' organisation is too sectorized and the weakness of the financial means and number of agents is the most important bottleneck to the development of an efficient water administration. This statement, added to the relatively recent interest of the judiciary institution for environmental protection, had led to a very small number of administrative procedures with sanction.

4.1.1 Ministry of Energy and Water

The Ministry of Energy and Water (MEW) was created by a Law n° 20/66 of the 29 March 1966. In the field of controls and enforcement, the MEW is mandated for the following:

- Implement the laws and regulations dealing with the protection and utilisation of hydraulic public domain.
- Control the concessions on water, electricity and harbours.
- Implement the laws and regulations dealing with mines and quarries.

The Water Directorate of the MEW is in charge (among others) of proceeding to inspections and gauging and interpretation of the results and statistics on all Lebanese rivers on a regularly basis. He is responsible of implementing laws and regulations concerning conservation of public waters. Since 1973, he is also responsible of operations for elimination of rain waters and wastewaters.



Since the major reform of the Law n° 221 of 29 May 2000 carrying organisation of the water sector, the MEW tends to be more clearly in charge of conservation of water, aquatic ecosystems and its developments¹⁰. This enlargement must be approved as it clarifies the inspection role of MEW. Unfortunately, it also make even more stringent the question of coordination with ME's inspectorate. Indeed, the later can hardly proceed to a full environmental inspection while no coordination is foreseen between the two administrations.

In 2015, MEW was composed of about 80 agents.

4.1.2 Ministry of Environment

The Ministry of Environment (ME) was created in 1994 and its attributions were modified by a Law of the 24th of August 2005. It is composed of about 60 agents including 20 to 25 technical agents. It has two regional delegations.

The ME's mandate is to prevent pollutions, implement compensation measures in case of pollution and organise the environmental permit system.

The Law n°444 of the 29th of July 2002 related to environmental protection defines the role of agents in charge of controls and investigations of offences which caused damaged to the environment. This Law has given mandate to legal controllers and controllers of the ME the possibility to search premises, check documents related to environmental authorisations, make samples and tests when necessary. Since 2013, the ME is also in charge of controlling environmental impact assessments. Since 2014, ME has a delegation in each governorate with judiciary police competence for environmental crimes, under the supervision of the general prosecutor. This later reform of the ME is still not fully implemented.

Very recently, legal documents for accepting hiring about 40 environmental inspector at the Ministry of Environment distributed on six Mohafzat in Lebanon, has been sent to the council of ministers for their approval.

¹⁰Exact mandate: of the MEW quoted from the Law n° 221 of 29 May 2000: « *Collecter, contrôler, mesurer, établir, étudier les statistiques relatives aux ressources hydrauliques et évaluer les besoins en eau et les possibilités d'usages dans toutes les régions libanaises,*

Contrôler la qualité des eaux de surface et des eaux souterraines et en définir les normes,

Etablir le projet de planification générale pour l'allocation et la répartition des ressources hydrauliques entre l'eau potable et l'eau d'irrigation sur le plan national (de l'état), préparer le projet de Plan Directeur général de l'eau et de l'assainissement, le mettre à jour et le soumettre au Conseil des Ministres par le biais du Ministre (...)

Faire la recharge artificielle des réservoirs d'eau souterraine au besoin, et contrôler l'exploitation des quantités prélevées, (...)

Exercer le contrôle et la tutelle sur les établissements publics et toutes les autres institutions opérant dans le domaine de l'eau conformément aux dispositions de la présente loi et aux textes et stipulations relatifs à chacun des dits-établissements et institutions, (...)

Etablir les normes à adopter dans les études entreprises par les établissements publics d'exploitation et dans l'exécution de leurs travaux, ainsi que les conditions et règlements d'exploitation des eaux de surface, des eaux souterraines et des eaux d'assainissement, et les normes de qualité des eaux et leur contrôle, (...)

Assurer les relations publiques avec le public, l'informer de tout ce qui l'intéresse dans le domaine de l'eau et l'orienter vers une utilisation rationnelle et économique de l'eau. »



4.2 Suggestions for the creation or the improvement of an existing inspectorate

The enforcement of environment and water legislation needs the creation of a new administrative institution. This corps of inspectors should be composed of technicians and engineers from ME, MEW, MPH and PEWS. Its action should be coordinated by a policy-level consultative interministerial commission. These agents would be entitled to research, qualify and seize prosecutors about infringements to environmental and water penal and administrative laws.

4.2.1 Creation of a interministerial environmental inspection corps

Controlling, measuring and monitoring actions to be implemented by a corps of engineers/technicians necessitates a sufficient number of agents. A sound environmental inspectorate action also needs a full scope of action (air, soil, water...). For these reasons, ME and MEW should collaborate to create a unique corps of inspectors. This corps shall be composed of a majority of ME agents. MEW agents should remain within their administration hierarchy but benefit from the same competences for their field of action. This corps of engineers should be working as a special task force, separated from other departments of their respective administrations. This corps should be dedicated to field missions and be composed of at least 20 full-time central administration agents altogether composed of 15 agents from ME and 5 agents from MEW. The Ministry of Environment is planning to hiring about 40 environmental inspector distributed on six Mohafzat in Lebanon (decision under approval of the Council of Ministers).

4.2.2 Status and material of the environmental inspection corps

As a framework, the environmental corps of engineers should be designed according to the following suggestions:

- A legal status including missions and prerogatives as based on Law n°444 for agents of the ME and agents of the MEW, creating a common investigation task-force in order to share all necessary environmental data.
- A sufficient financial retribution of these agents to guarantee independence towards individual persons, public or private legal entities to avoid tampering and corruption allegations, plus extra allowance or advantage depending on difficulty and danger.
- Personal protection of all agents, especially in the exercise of their duties on the field, including, if necessary, an appropriate armament according to the local context and the conditions of exercise. At their request, field agents should benefit from the public force when necessary.
- Agents belonging to the corps of inspectors should be wearing an official special uniform with clear distinctive badges and always work in team. They should be able to use dedicated vehicles and any material that may be useful to their investigations
- The corps of inspectors should benefit from the utilisation of both ME and MEW material support for sampling, testing and laboratory researches. They should be trained, including on legal and judiciary procedural aspects.



4.3 Assessment and identification of the suitable local levels of administration for operating the controls

4.3.1 At water basin level

Five Public establishments of water and sanitation (PEWS) were created during the 2000 water sector reform. They are financially autonomous and stand-alone legal entities but placed in the scope of the MEW control. They approximately correspond to hydraulic basin systems, except for certain areas. Since corrective Law n° 241 of 7 August 2000, there is four PEWS as follows:

- Beirut Mount Lebanon (Beirut)
- North Lebanon (Tripoli)
- South Békaa (Zahlé)
- South Lebanon (Saïda)

Regarding inspections in particular and within their geographic perimeter, their mandate is the control of the quality of drinking water, irrigation water and wastewater at the outflow of the sewage plants (Law n° 377 14 December 2001). The PEWS gather approximately a dozen agents except Beirut Mount Lebanon which has about 20 permanent agents.

The 2014 Beirut-Mount-Lebanon PEW annual report mentions 70 cases of significant irregularities between 2006 and 2014 (resolved or ongoing).

Public establishments of water and sanitation (PEWS) would be an appropriate local level of administration for operating controls, under the supervision of MEW which would define the environmental policy and priorities.

In order to reinforce the level of compliance to water laws, it is recommended to mandate at least 1 agent of each PEWS as member of the corps of inspection, except for Beirut-Mount-Lebanon where at least 2 agents seems to be more proportionate due to the high density of this part of the country. These engineers or technicians should benefit the exact same prerogatives than the other agents, as described above (uniform, public force, vehicle, armament, etc.). A relatively large autonomy is to be given to this field agent corps at the local level, considering that their belonging to the corps of inspectors, their dedication to this later should be considered as a priority.

4.3.2 At Mohafaza (and municipal) level

At governorate level, the *Mohafez* is mandated to receive applications for environmental permits. He is also allowed to deliver permits to minor installations. He transmits the other applications (About 50%) which are normally under the responsibility of competent ministries, according to thresholds of the permitting legislation.

At municipal level, the chief of the municipal assembly have a general power of police on its territory.

No institutional change is recommended for this level of police. Some representative of Mohafaza's administration should be slightly associated to the above action plan. The objective would be to guarantee that they may access to the same information, be aware of existing capacities of the inspectorate corps, be able to make daily contacts if necessary, be able to share first-hand observations to the corps without delay. Mohafaza's representative should be entitled to communicate with municipalities and rural administration as a go-between, in order to leave the possibility of citizens and municipal administration to transmit bottom-up information.



4.4 Development of a practical plan of action to create and/or enhance a corps of specialized water and aquatic environment engineer and inspectors

The power of an administration depends on its means, its organisation and its methods. Enforcement of environmental and water legislation must be backed by clear designation of specialized water and environment inspectorate. As described above, this corps has to be clearly legally defined and benefit of a public recognition and legitimacy. For operating the missions of permitting and controlling within the water sector, the both central level and local levels are appropriate. Considering the relatively small size of the country and its high density around the capital, it is recommended to initiate the environmental and water police reform by designating 25 water-specialised engineers and technicians to be part of the inspectorate corps. The administrative and territorial repartition of these rangers should be the following ratio:

- 15 agents from ME
- 5 agents from MEW
- 2 agents from Beirut Mount Lebanon PEWS
- 1 agent from North Lebanon PEWS
- 1 agent from South Békaa PEWS
- 1 agent from South Lebanon PEWS

From a practical point of view, implementation of this action plan would require several institutional, legal and operational reforms. As a starting point of this important task, the following non-exhaustive tips are to be kept in mind.

4.4.1 Legislation amendments

Existing Lebanese legislation should be slightly but carefully amended to include provisions listing the updated categories of accredited inspectors, naming the conditions of accreditation and requiring them to swear an oath, listing the conditions required for the performance of their mission and the extension of the powers being granted, providing for a default procedural framework for the writing of administrative reports (administrative police) and for the statements of fact (judicial police), enabling the inspectors to wear distinctive badges clearly identifiable and maybe a uniform and finally with provisions describing the relations of the inspectors with the prosecutor. This would have impacts on primary legislation and at least on the following laws of Lebanon:

- Law n°444 of the 29th of July 2002 related to environmental protection.
- Law n° 221 of the 29th of May 2000 carrying organisation of the water sector.
- Law of the 24th of August 2005 concerning Ministry of Environment competences.
- Law n° 377 of the 14th of December 2001 about the organisation of the PEWS.
- Law n°251 of the 15th of April 2015 about environmental magistrates and prosecutors.

4.4.2 Permanent training

A pre-service and permanent training focused on the inspectorate's duties and proof making to teach the engineers and technicians procedural penal and administrative regulations. First of all, the trainings should deal with inspection reports, investigation methodology, and certified report making. The objective is not only to fulfil with procedural laws but also to convince prosecutors or the administrative courts thanks to supporting evidence. Importance shall be given to the closing of a case phase which



should only happen when the case is resolved or when no further action is possible to keep on with the investigation. The training should emphasis on the necessity clarity, precision and accuracy when elaborating the certified report keeping in mind that the judges do not necessarily carry engineering, technical, scientific or environmental background.

4.4.3 Organisation and infrastructures

An operational infrastructure and material organisation is a key issue for the success of an environmental inspectorate corps. Engineers and technicians should use an enforcement manual or guide recording the various infringements with their definition and characterization in order to assist them in drafting the official statement of the facts (or a report in default for administrative sanctions). They should also be able to gather and proceed to desk researches and report making in a dedicated central office with up to date equipment necessary for the conservation of samples, the classification of files, the storage of field material and vehicles. The inspectorate's office should be sufficient to receive meetings for 30 people. Apart from the decentralised offices belonging to ME delegations or PEWS, the corps of inspectors should also be able to benefit storage rooms at least in 2 regions of the country (Tripoli and Saïda, for instance).



5 Designing of a national capacity building training and study tours program for prosecutors and magistrates

Generally speaking, in the SWIM-SM region, the number of magistrates who are familiar with water and environmental laws and requirements is insufficient. Ministries and central environmental or water agencies/authorities are the most appropriate level of administration for training magistrates. In parallel to the construction of a strong administration specialized in water and aquatic environmental offences, and in order to fulfil a double objective of an amelioration of the number and stringency of adjudications and a better understanding of the stakes of protecting water resource, two major activities have been undertaken as follows:

1. Design the foundation for the creation of a national network of water and environment specialized prosecutors, magistrates, attorneys and judiciary experts.
2. Design a national capacity building program to train a group of magistrates for water and aquatic environmental prosecution procedures including long term training within water and environment ministries and study tours.

5.1 National network of specialized prosecutors, magistrates, NGOs, attorneys and judiciary experts

As a pre-requisite of a national network for prosecutors, magistrates, attorneys and Judiciary experts; at least ME, MEW and Ministry of Justice of Lebanon should agree on joint objectives and outputs. In due respect to the separation between executive power and judiciary power, Ministry of Justice should also be specifically mandating the magistrates to participate and inform them about the stakes, program and meetings.

The first step of the national network could consist in the identification by the Chief Prosecutor of a preliminary list of prosecutors, magistrates, attorneys and judiciary experts. Identification should be relatively easy due to the centralism of the country and the fact that only a limited number of magistrates are already convinced of the potential number of cases. The role of Chief Prosecutor would be to attract **two dozen candidates altogether divided in 3 groups**. Then, the composition of the sample would be:

- 1/3 for magistrates and prosecutors representing both judiciary and administrative courts (14 persons).
- 1/3 for attorneys, including both public and private law specialists (4 persons).
- 1/3 for judiciary experts and NGO's (6 persons).

5.1.1 Magistrates

There is 3 judiciary orders in Lebanon: Civil Courts, Penal Courts and one "*Conseil d'Etat*". Civil and Penal cases are judges in the same tribunals, composed of 3 levels:

- Unique Judge for cases under 100 million LLB or First Instance Tribunal for cases over 100 million LLB.
- Court of Appeal
- Court Of Cassation

The administrative judiciary order is only composed of one jurisdiction, being the "*Conseil d'Etat*".



Both Penal and Administrative Law specialized magistrates should be represented in the sample of candidates participating to the National capacity building program (ideally 2 magistrates of each).

In addition of the following recommendations for a National capacity building program, **candidate magistrates could spend a certain lap of time (between 6 month and 1 year) within an environment related administration** where regulations and enforcement policies are elaborated. In most of cases, it is the of Ministry of Justice's duty to take action upon request of the regulating authorities. Penalties and orders are pronounced by the court, upon conviction of offender and proof of evidence to determine guiltiness. Inspectors of regulating authorities might recommend a possible applicable penalty to be pronounced by the judges that commensurate with the nature and gravity of the offence. Part of this process is a technical exchange between the inspector and the prosecutor. The Ministry of Justice's magistrates shall be prepared for interpreting technical fact-related considerations and to compare those to legal criteria included in the definition of a criminal offence.

The preparation of candidate magistrates should also be request **participation to the ranger's field investigations**. Moreover, in the case of imminent hazard situations threatening water resources and/or environment, the judicial prosecution procedures require efficient, proportionate, adapted and prompt court orders and measure to secure human beings, stop pollution and limit the consequences of the pollution. Such emergency measures ordered by court are one of the no-regret legal tools that all of the Mediterranean country shall profitably adopt. These procedures need judges familiar with water and environment issues and requirements.

5.1.2 Prosecutors

Lebanon has recently modified its Penal Procedure Code so that Chief Prosecutor of Appeal Court assigns one or several magistrates in charge of prosecuting a listed number of environmental crimes. This **environmental prosecutor** is entitled to activate a penal action. The Law n° 251 of the 15th of April 2014 creating the environmental prosecutor is defining in a relatively large and comprehensive way, the various types of environmental crimes. In particular it includes aquatic environments, water, hydraulic public domain, biodiversity and violation listed in the Law n° 444 dated 29/7/2002 about environmental protection¹¹.

¹¹ Extract of article 1 of Law n°251 dated 15/04/2014. Environmental prosecutor is competent for the following:

« la violation des lois et règlements concernant la protection des richesses forestières, les forêts et réserves naturelles, la biodiversité et la protection de l'air, de l'eau et la pollution des sols et celles relatives à la lutte contre les dommages causés par le son et le bruit.

la violation des lois et règlements relatifs aux mines, carrières et sites de concassage.

la violation des lois et règlements relatifs à la sauvegarde de l'environnement en déterminant les conditions environnementales des différents établissements classés environnementaux.

la violation des lois et règlements relatifs à la sauvegarde de l'environnement qui protègent la propriété publique et privée de l'Etat, les municipalités, l'eau régionale et les empiètements sur la propriété de la mer, des rivières et des eaux souterraines.

la violation des lois relatives à l'élimination de différents déchets, en particulier les déchets médicaux générés par les hôpitaux, les déchets chimiques et nucléaires.

la violation des dispositions de la loi n° 444 en date du 29/7/2002 et d'autres dispositions légales relatives à la protection de l'environnement dans son ensemble.

la violation des lois et règlements qui protègent les monuments et le patrimoine culturel et naturel. »



The environmental prosecutor itself is an efficient solution to fill in the gap of capacity building within the Ministry of Justice. This option consists in establishing one or more magistrates especially competent for consolidating environmental cases to be prosecuted in court. He (or she) shall be entitled to coordinate with other concerned administrations (Ministry of Water, Environment, Health, Interior State and Basin Agencies...) and to disseminate environmental law to other magistrates and professionals of the Ministry of Justice.

This recent reform is very significant and must be fully approved as a major step forward for Lebanese environmental legislation. One year after its publication, it is uneasy to evaluate its real consequences and implementation. One should be vigilant to the future of this new prosecutor. In particular, the application Decree for this Law has not been transmitted. A certain (undetermined) number of magistrates and prosecutors have been nominated in application of this Law. It seems urgent to do so and **not only appoint one but 4 environmental magistrates**, collegiality being a guarantee for probity, impartiality and independence of environmental crimes prosecution. Environmental prosecutors could then share the responsibility of the cases between various areas of specialisation (water, wastes, industry, etc.). **All these 4 environmental prosecutors should be part of the sample participating in the National capacity building program.**

To date, the number of referrals of the Chief Prosecutor for water related cases is relatively small (even for environment in general). This situation might be the result of a lot of reasons but a major factor is sitting in the fact that, by law, neither agricultural cooperatives nor non-profit organisations (NGOs for environmental protection or consumer's protection) are authorized to activate justice administration. This cannot only be compensated by the creation of environmental prosecutors. This justice denial is to be regretted as NGOs are a potential direct and indirect driving force of enforcement of environmental legislation.

5.1.3 NGOs

The positive role of **NGOs** is largely underestimated in Lebanon. Their utility is both direct and indirect. They are able of detecting situations of environmental risk at large scale without the financial help of State administrations and agencies. First, as **whistle-blowers**, NGOs shall have the capacity to be legally authorized to activate prosecution when an environment is endangered. Secondly, as awareness raisers, they are indirectly enhancing the social demand of well-being and natural amenities. Third, and as a consequence, as watchdogs they are putting indirect pressure on violators and prevent from committing environmental offences. The role of NGOs shall be seen as a separate independent source of prosecuting procedures for environmental / water legislations violations and considered useful *per se*. As a consequence, it is recommended to contact **at least 4 local and international NGOs to participate to the National capacity building program**¹².

5.1.4 Attorneys and judiciary experts

Finally, **8 Judiciary experts and 2 attorneys shall be invited to participate to the National capacity building program**. They shall be contacted using existing databases of legal practitioners in Lebanon.

¹² List of Lebanese NGOs <http://www.lebanonclean.org/directory-of-environmental-groups.html>



5.2 National capacity building program for procurers and magistrates

Except for rare cases, most prosecutors, magistrates, attorneys and judiciary experts share the same level of knowledge when dealing with environmental or water cases. This common challenge of scientific interpretation of the facts and cases is the reason why all of them would benefit a global enhancement of environmental and water capacities through workshops, trainings and study tours.

The location, content and the organisation of the workshop, trainings and tours should be sufficiently neutral to avoid suspicion of take-over by of the participating administration.

5.2.1 Workshops

The workshop should be composed of environment and water specialized engineers and members of the network described below (prosecutors, magistrates, attorneys, judiciary experts and NGOs). The aim would be to make each and every one of them aware of their respective problems and of the importance of preserving the environment and more particularly of the preservation of water resources and of the aquatic environment.

5.2.2 Training courses

Magistrates, prosecutors and the judicial experts could be trained about environmental science, in particular in the fields of water and aquatic environment. This training would be aimed at providing magistrates with some technical theoretical background as well as a pragmatic approach linked to the technical issues.

5.2.3 Study tours

Study tours could be organized to visit a panel of selected countries having substantial experience and/or some geographical and climatic similarities (Greece, Morocco, Italy, Spain, and France). Such journey could profitably be composed with engineers, technicians, field agents and communication facilitators.



6 Conclusion

Public status of water resource of Lebanon, which belongs to hydraulic public domain may facilitate its management but may not be sufficient to ensure full preservation. Legislation and regulation sometimes need to be amended but it is not enough without any actual control and monitoring operated by well-prepared field agents.

A general framework policy reform on water and environment should emphasis on violation definitions and enforcement means and procedures. As a reminder, several aspects must be considered as tracks of improvement:

- Improve the water activities classification and the related administrative sanction.
- Amend the penal sanction definitions to fit a large number and most common violations.
- Create a corps of specialized engineers and gather a sufficient inspectorate force.
- Mobilize prosecutors and train magistrates to adapt to societal demand of protection.

A comprehensive permitting system shall be based on a classification and objective criteria of operations likely to infringe to a significant extent the water resources and the aquatic ecosystems. Administrative actions, if well-defined can be very efficient and cover the largest scope of offenses. They are also less resource intensive compared to judicial civil and criminal cases which require a higher level of formalization in the procedures. This must be Lebanese priority in the next few years (Water code).

Penal actions are the most deterrent means against environmental criminals. Criminal cases are difficult to pursue because of possible alteration of proofs and because they require sophisticated investigation to determine the source of pollution and its impact on environment. Criminal law procedures require the highest standard of proof. It includes the difficulty to prove the violator's intentions (willingness or disregard). While, the creation of an environmental specialized court wouldn't relevant, an overall reshaping of administrative and penal sanctions would create a favourable context for better results in water and environmental laws enforcement.

An operational system for controlling efficiently the uses and misuses of water implies a sound cooperation between ministries involved in the water sector through a central high level advisory council. It must be implemented at appropriate administration and field level and operated by a motivated, trained and equipped corps of engineers or technicians. The pursuit of offences in general, being administrative laws infringements or criminal environmental law breaches, is facing a stringent societal challenge. Considering the size of Lebanon, its urban concentration around Beirut, sectarian politics, the country is characterized by a certain familiarity. These specificities of Lebanese society are favourable to partiality and corruption which is relatively high in Lebanon according to international benchmarks¹³. To solve this problem, the government had to create a civil servants evaluation committee.

Lebanese prosecutors, magistrates, attorneys, judiciary experts (and NGOs), are part of a production chain of water and environmental offences prosecution procedures. These actors would benefit a more frequent and dense informal networking. This networking would fill in the gap by sharing data, past cases, science, and experiences. Enlarging these elements at regional Mediterranean scale would represent an important source of mutual benefit by sharing expertise, international experiences, best practices, grey literature, regulations etc. As regard specifically to water issues, SWIM-SM might be an opportunity to create such international regional network, cooperating with other existing actors such

¹³ Lebanon was evaluated 2.5/10 and ranked 130th country upon 180 for the corruption perception indicator (Transparency International)



as INBO, EMWIS and more. Countries of the Mediterranean region are facing diverse situations regarding the legal and institutional capacities for prosecuting water and environment legislations. Meanwhile, they have an opportunity to draw a road map towards enforcing the rule of law in the water and environment sectors with the view of achieving compliance.



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