

H2020 Review and Monitoring (RM) workshop on Assessment
10th meeting of the Horizon 2020 Review and Monitoring (RM) Group
23-24 September 2019 in Athens, Greece

Lebanon



This project is funded by the European Union



European Environment Agency



BACKGROUND

- Lebanon did submit 4 NBBs reports; 2003, 2008, 2015 and 2018
- NAP (2015) was based on the 2015 NBB
- **ENI SEIS II project is not yet implemented**
- **H2020/NAP indicators on industrial emissions is not yet populated**
- PRTR is not yet effective



Lebanon's environmental system is under mounting pressure

Environmental System Pressure Points



Inadequate **waste collection and disposal** with limited **treatment and reuse** capacity



Weak land use planning and regulatory practices leading to uncontrolled urban expansion



Ineffective regulatory framework resulting in growing illegal quarrying activities



Deterioration of biodiversity as a result of urbanization, lack of protection measures, etc.



Decline in ambient air quality with an increasing economic and social cost



Increased GHG emissions and reduced resilience to **climate change**



Excessive and uncontrolled use of chemicals leading to negative healthcare implications

Country Strategy

The Ministry of Environment had been managing and monitoring the pressure sectors based on hotspot and sector approach, thus developing sectorial strategies / guidelines / policies.

Now, the Ministry of Environment is under the process of developing its environmental ministerial strategy (2019-2030) that would focus on the pressure points and provide a well-established ecosystem of enablers that can support in transforming the sector.



... with a well established ecosystem of enablers that can support in transforming the sector

Environmental Sector Key Enablers

Human Capital

Well established academic institutions with dedicated educational and research programs around environmental sciences with a growing number of firms with environmental sciences capabilities

Non Governmental Organizations

Over 300 organizations active in the field of environmental conservation and protection

Strategies

National Sustainable Development Strategy (NSDS)	Lebanon's National Biodiversity Strategy & Action Plan (NBSAP)
National Energy Efficiency Action Plan (NEEAP)	National Impl. Plan for Persistent Organic Pollutants (NIP POP)
NAP	ISWM strategy

Env. Laws and Regulations

Laws and regulations currently exist:

- Environmental law
- Integrated solid waste management
- Air quality
- Protected areas law

(Some of these legal texts still need bylaws to be enforced)

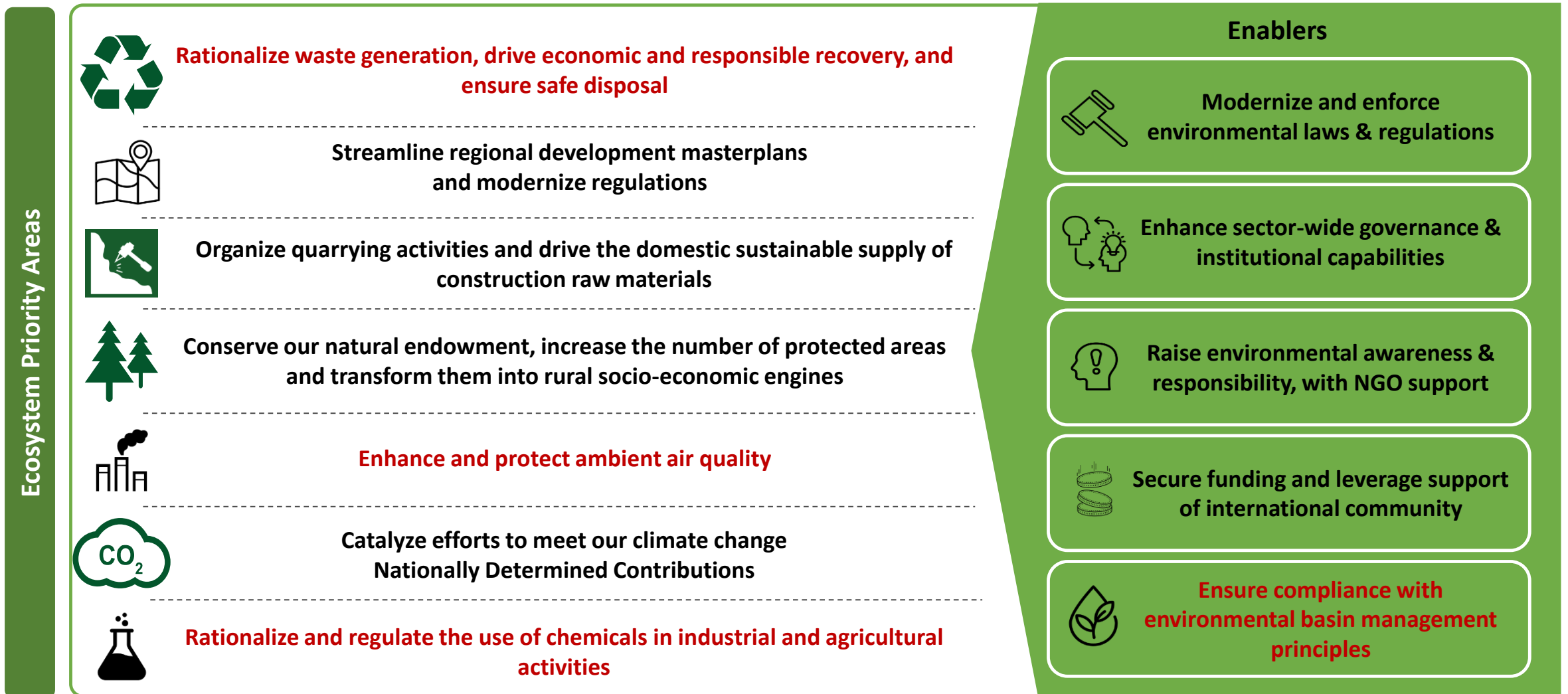
Private Sector – CSR

~52% of medium-large Lebanese companies carry CSR activities with ~30% focusing on the Environment, initiatives (e.g., Lebanon Climate Act) and certification (e.g., environmental compliance, climate change certificates)

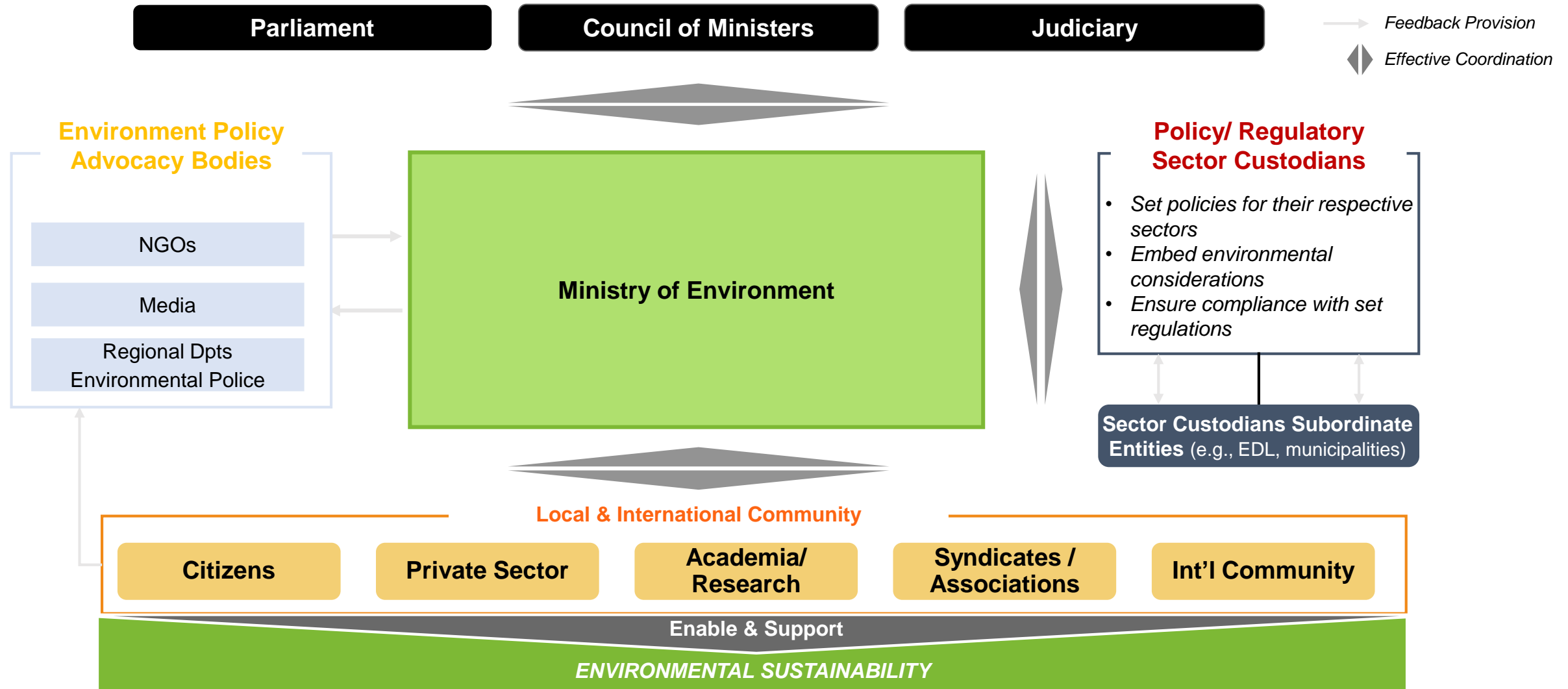
Environmental Financial Mechanisms

Well established tax system (e.g., tax cuts/ tariff exemption for hybrid / electric vehicles, tax credits and customs reduction on renewable energy, Lebanon Environnemental Pollution Abatement Project)

MoE aspire towards a sustainable environment enabled by the right legal, financial and institutional capabilities



Hinges on the collective efforts of all stakeholders



Industrial emissions

Status	Limited generation capacities and the increasing demand impede Électricité du Liban (EDL), the national utility, from meeting the country's electricity demand.	Ageing power plants in Lebanon operate below their rated capacity			
Efforts	Rehabilitation of some generation plants and rented generation barges that increased the generation capacity by about 440 MW.				
Hindrance	Power outages remained the same across the country because additional capacities are equated by an almost similar demand by the displaced Syrians	In 2017, the carried-out assessment to weigh the impact of the Syrian crisis on the power sector, showed that the calculated additional direct and indirect power generation needed to cater for the demand of the displaced Syrian amounts to approximately 486 MW.			

Impacts	Increasing the concentration of pollutants in the urban cities (that are in majority coastal cities),	Negatively affecting the ambient air quality in the country	Increasing the quantities of the complaints received by the MoE regarding that sector, thus adding workloads on the available resources at the MoE (and other stakeholders) to enforce and monitor the compliance of those generators with the national standards and regulations	Increasing the power bill on the residents, as they are to pay two bills per month; (a) for the government and (b) the mobile generators owners.	
Rebound	Ministry of Energy and Water proposed a global framework, strategic initiatives and action plan to cover the sector's infrastructure, supply / demand, economic burden and legal aspects. This power sector action plan had been approved by COM	The activities of this strategy would lead for a tremendous decrease in the number of mobile generators	Encouragement of the private investors to submit and develop renewable energy projects for power production		
Initiatives	A target for the energy sector by committing to 12% renewable energy use by 2020	Develop renewable energy projects for power production. Currently three wind farms had been approved	50 environmental scope reports for solar energy production had been submitted to the MoE	Install "continuous emissions monitoring" on the burners to allow an efficient and quantitative monitoring of the pollutants at one of its major thermal power plants.	A replacement of one old burner with a new environmental friendly one (low NO _x burners) in the same power plant.

Waste Management

Status	Very little has been achieved in so far as managing hazardous waste including industrial waste, agricultural waste, sludge, slaughterhouse waste, E-waste, obsolete drugs and materials, used oil, ... as well as other types of waste such as construction and demolition waste.	No facilities for the safe collection, storage and disposal of hazardous wastes and while some organizations / institutions and facilities exist for the collection and treatment of some hazardous waste streams (like medical waste – mostly infectious waste, electrical equipment and used oils), and some waste generators manage their own waste, most hazardous waste is stockpiled for export in line with the Basel Convention, disposed of to the municipal waste stream or disposed of illegally.	Many of the past and on-going activities aimed at addressing the municipal solid waste without interventions on collecting and removing the hazardous waste streams. Thus, this became crucial to ensure an efficient management of Solid Waste
Efforts	Integrated Solid Waste Management Law (Law 80 dated 10/10/2018), did include a specific section on hazardous waste, that is Section 4 – Management of Hazardous Solid Waste. Law 80/2018 specified the penalties to be enforced while mismanaging the hazardous waste during the whole cycle.	Hazardous Waste Management Decree was approved by the Council of Ministers in August 2019. All relevant aspects related to HWM are tackled in the decree including the monitoring and control procedures providing the institutional arrangements required for implementing and enforcing the law	

Waste Management

Initiatives	Under NIP, several inventories had been carried out to assess the needed actions to ensure a proper hazardous waste management	An assessment was conducted on the capacity of the national laboratories whether private, public, semi-public, and academic or research centers, to test for POPs in different matrices. Based on the assessment, all listed POPs can be tested at one of the laboratories available in the country with the exception of PCP, HCBD, and PCNs.	MoE developed a pre-feasibility study for a “Hazardous Waste Transport and Interim Storage” PPP project. The result of the pre-feasibility study shall be a brief concept note for a well-defined project.	A preliminary inventory is being carried out, to establish a baseline of hazardous waste generation and management. This will be only a preliminary inventory and will be mostly based on an estimation and projection methodology.
--------------------	--	--	--	---

Waste water

Status	Sludge management of municipal wastewater treatment plants has been a pressure point on the sustainability of the operation of these plants.	Several facilities still do not have a sustainable sludge management solution.	No national standards for the sludge are present
Efforts	Feasibility assessment study is ongoing and funds for the treatment of the sludge has been allocated through funds for some plants	MoE is reviewing and updating the ELVs taking into consideration Lebanon's commitments to international conventions and to include the sludge	
Initiatives	Technical, social and environmental studies will be conducted for the sludge management of WWTP – sludge treatment facilities. Based on these studies, sludge treatment facilities shall be constructed.	New sewage networks had been connected, old sewage networks had been rehabilitated and new connections had been foreseen, thus ensuring that all of them are to be connected to existing or upcoming wastewater treatment plants.	

Governance



Integrated Environmental Basin Management

Residents



Solid waste



Wastewater



Wells

Agriculture



Pesticides and fertilizers



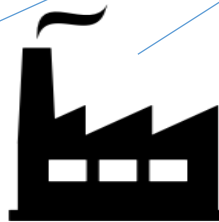
irrigation



Pollutant Sources Points



Classified establishments



industries



Healthcare facilities



quarries



urbanization



Hazardous waste



Medical waste



Wastewater



Solid waste



Land erosion and degradation

Thank you for your attention!



This project is funded by the European Union



European Environment Agency

