

Constraints, Gaps and Related Financial, Technical and Capacity Needs



6 Constraints, Gaps and Related Financial, Technical and Capacity Needs

Several barriers need to be overcome in order to enable Lebanon to comply with the fundamental principles of the Convention. At present existing main barriers can be categorized into three groups: constraints for the preparation of national communications, difficulties in implementing the proposed mitigation and adaptation measures, and financial constraints.

6.1 PREPARATION OF NATIONAL COMMUNICATIONS

In general terms, lack of and access to data are the main barriers that proved to be the most hindering. The lack of statistics particularly affects the assessment of GHG emissions and economic development scenarios.

The absence of scientific assessments and research in terms of assessing e.g., economic impacts of climate change, the ecological impacts of global warming and the degree of resilience of the different systems are hindering the prioritization of adaptation strategies in the decision-making process. The lack of expertise in climate simulation is also considered as a major gap.

6.2 MITIGATION AND ADAPTATION STRATEGIES

Electricity

The weak institutional structure of the EDL and the lack of private sector involvement, the insufficient incentives to promote renewable energies, from one part, and the low efficiency of the power plants, high technical losses, accompanied by a lack of measures to reduce demand, from another part, will hinder the implementation of the proposed measures. There is also a lack of sufficient information on the potential of different renewable energy sources at the policy level, and awareness on their and energy efficiency measures' benefits at the population level.

Transport

Several factors hinder the implementation of mitigation efforts in the transport sector. The absence of legislation governing vehicle emissions and vehicle retirement

age, along with the inappropriate infrastructure in accommodating both the ever increasing traffic and the adoption of a well-organized public transport sector, constitute a drastic barrier in the implementation of any proposed plan.

Industry

There is an avert need in improving the efficiency of power generators and production processes in the industrial sector. The major constraints are the inappropriate emissions standards, lack of enforcement of regulations in place, and the high cost of technology and lack of financial support and incentives for the promotion of low emission technologies.

Building and Construction

The improvement of the building envelopes' thermal characteristics is an important measure, which, in the absence of any mandatory application of the already developed national thermal standards and along with incentives for their application, is faced with hindrance. The situation is further exacerbated with the high cost of building insulation techniques and lack of awareness with respect to their long term benefits, and the limited technical know-hoe in the field.

Forestry and Land Use

The sector is deficient and/or lacks adequate legislation and enforcement of regulations pertaining to forest management and planning, in addition to overlapping mandates and poor coordination among governmental bodies. This is partially due to the lack of mainstreaming of biodiversity conservation and ecosystem management in policy making. There is limited budgetary support for managing e.g., many of the country's protected areas, whereas, high financial inputs are required to ensure natural forest regeneration and development, and the sector is highly void of appropriate infrastructure/equipment for quick interventions in cases of fires and pest outbreaks.

The lack of vocational training, the weakness of the training programs, the scarcity of applied research, and the lack of information on ecosystem services and the forest values are only aggravated by the chronic lack of funding.

Agriculture

Several constraints related to water rights in communal and private springs, the imports of materials used in organic farming and facilitating the adoption of IPM are considered as barriers. There is also a lack of enough staff at the ministry of agriculture as well as private enterprises, which is leading to constraints related to quality control and traceability. The absence of several technologies related to animal husbandry, of insectariums and local providers of traps, pheromones, biological pesticides and natural predators, as well as machineries required for no-till agriculture constitute technological constraints. There is also a pressing need in training farmers and agricultural engineers in sustainable practices and the introduction of new climate resilient cultivars and rootstocks.

Solid Waste

From the legislation perspective, the absence of a grid feed-in tariff and proper regulatory text related to the operation of waste incineration facilities are considered areas where more work is required, especially if waste to energy technologies are planned to be deployed. The country lacks a single, and empowered, regulatory body responsible for the solid waste sector, which lead to several unsuccessful waste management. Local technologies are deficient, and technology transfer is required. Public awareness on the need to start waste segregation at the household level is essential, for a successful waste management.

Water

There is a colossal lack of enforcement in permitting and control of groundwater abstraction. In addition, the inadequate tariff system hinders water conservation. The legal requirement to develop watershed management plans are poorly enforced, while standards pertaining to the reuse of wastewater, greywater and storm water, as well as aquifer recharge are not available. These are accompanied by the limited experience in artificial recharge, watershed management and maintenance of water monitoring systems, with the limited awareness of the population on needs for water conservation makes this sector particularly vulnerable.

Coastal Zone

The major legal constraint identified is the lack of enforcement of regulations related to setting building violation and identifying setback regulations in coastal areas. An institutional mechanism to protect and manage

important sites as well as historical/natural assets along the coast is absent, while there is limited coordination between technical agencies and authorities for effective exchange of technical information and proper management.

Human Health

The limited coordination between the health care providers and the MoPH can prove to be detrimental in cases of natural disasters. Specifically, the lack of any surveillance system linking the health care providers to a centralised health databank in MoPH is striking. The limited access to proper sanitation and safe water in underserved areas makes the situation worse. The population also lacks awareness on impacts of climate change on health.

6.3 FINANCIAL RESOURCES

The Global Environment Facility financially supported Lebanon in preparing the Initial and Second National Communications, Technology Needs Assessment/Technology Transfer enabling activities, and National Capacity Self Assessment for Global Environmental Management project. All the above mentioned projects have been conducted by the Ministry of Environment, with the support of the UNDP, in addition, in the case of the Second National Communication, to the National Communication Support Programme.

Lebanon, through the Ministry of Environment, contributed in-kind to the climate change related projects, in addition to a USD 20,000 in cash contribution to the SNC process.

Lebanon's financial needs enabling it to tackle climate change problems required funding in the range of USD 1.5 to 3 billion. These figures are for the short-term and some of the medium-term proposed plans, and the number is much higher when all areas, which have not been able to be properly assessed, are included. The inclusion of long-term plans will further swell the required financial resources.