

# Clima-Med

Acting for Climate in  
South Mediterranean



Funded by  
the European Union

Recommendations for Climate Action  
Coordination Strategy

# LEBANON

## CAS

**From Planning to Action:**  
Mainstreaming Climate Change  
"Engaging Local Authorities"



Union for the Mediterranean  
Union pour la Méditerranée  
الإتحاد من أجل المتوسط

This project is labeled by the UfM

# Guidance notes for the reader

The document aims to provide recommendations for national authorities to improve mainstreaming of Climate Change (both mitigation and adaptation) into public policies and to apply more effective ways to conduct Climate Change actions toward improved Climate Finance.

The document is divided into two sections preceded by a table summarizing the basic Country's Climate Profile, including: (A) a rapid assessment of the current mainstreaming with an evaluation of Climate Policy's integration and (B) recommendations for a Climate Action Coordination Strategy.

The Country Climate Profile gives main indicators about the country's economies with a specific focus on their relation to implementing their Nationally Determined Contribution (NDC).

A. The assessment of mainstreaming shows the convergence between a country's NDC and its national and local policies and strategies in terms of NDC implementation and – when relevant – link international institutions (both in terms of funding and technical assistance).

B. Recommendations for Climate Action Coordination Strategy draws upon four sections, alongside field-driven governance insights, to determine possible intervention areas ripe to support NDC implementation.

In Lebanon CAS, the section consists of some main guidance and insights. A second document containing more detailed and straightforward recommendations will follow upon the successful establishment of a new government in Lebanon.

# Preface

Clima-Med delivers recommendations to facilitate the mainstreaming of climate action for each of the project's partner countries – Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Egypt, and Tunisia. These recommendations are advanced in a "Climate Action Coordination Strategy" (CAS) document. The CAS is an analytical tool which provides guidance to national authorities on how to better mainstream climate change public policies and projects, focusing on both climate mitigation and adaptation actions.

In this perspective, the CAS can support various authorities:

- To facilitate cross-sectorial follow-up of its climate efforts
- To encourage climate coordination
- To provide input for revising the NDCs
- To undertake climate change projects at national and local levels
- To give visibility to opportunities, helping attract project promoters and investors
- To provide climate finance insights for international donors and aid organisations

The CAS was prepared jointly with the representatives of national authorities concerned with mainstreaming climate policies and actions, who are represented in the National Coordination Group (NCG). Through that cooperation, the CAS thus addresses issues that are specific to key national authorities' expectations and their country's key challenges.

In the case of Lebanon, the NCG's members have changed following 2017 events and new affiliations are expected to be decided upon the formation of the new national government in the fall of 2022, upon which a review and finalisation of the CAS will be done jointly with Clima-Med Focal Point and coordination team in Beirut.

Though this discrepancy can create some divergence in methodologies, all CASs follow the same structure. They are all built on two interrelated sections. These are:

- Part A: An overall assessment of the current level and efficiency of NDCs' mainstreaming through national policies
- Part B: Strategic recommendations to improve the efficiency and coordination of NDC's mainstreaming.

The CAS assessment includes key indicators that analyse the context of NDCs' implementation-related activities.

The CAS recommendations are drawn from this analysis and from field-driven governance insights, to determine possible intervention areas that are suitable to support the implementation of the NDCs.

A CAS specifically looks at the fields of:

- Policy, Strategy and Legal Framework/Planning
- Budgeting and Investment Framework
- Monitoring and Evaluation (M&E) Framework
- Capacity Building Needs and Activities

In the context of Clima-Med's priorities, given to enhancing cities' active participation in their country's NDCs implementation efforts, the CAS also advances recommendations specific to local authorities. For example, these can relate to:

- Integrating and **leveraging climate criteria in the national fiscal transfer systems**, including through:
  - The review by national authorities of municipal finance revenue-allocation structures, fiscal transfer mechanisms, and subnational borrowing frameworks, and as such encourages the alignment of local projects and expenditure with the achievement of NDCS targets.
  - Establish a **national SEACAP Support Mechanism** to act as a facilitation and expertise centre
  - This offers local authorities (of all sizes) technical assistance in the preparation and implementation of SEACAPs, from initial formulation to facilitating fundraising, project bankability, municipal planning integration, and awareness-raising

A CAS is a living and dynamic document. It should be continuously and systematically edited and updated to reflect changes in national policy frameworks or the country's NDCs.

Clima-Med, jointly with the project's Focal Point, has launched the CAS preparation process by delivering this first issue. This process provides a foundation and a framework for relevant authorities, inviting them to take the lead for future updates, changes, or adjustments, ensuring full ownership and adaptation to new conditions; thus, continuously improving the mainstreaming of their NDCs within their national policy framework.

Due to the specific conditions of Lebanon, this CAS remains different from other examples. The analyses of NDCs' mainstreaming are extended to a comparative analysis against the first NDCs and the revised NDCs. When it comes to Part B, it consists of some main guidance and insights. As noted, more detailed and straightforward recommendations will be provided following the successful establishment of a new government in Lebanon.

# Executive Summary

In this report, Clima-Med proposes various recommendations to improve the national climate policy framework and action plans related to it, investments addressing climate change, overall climate data gathering and the relevant Monitoring and Evaluation framework, along with suggesting capacity-building activities at different levels. These recommendations are based on an in-depth evaluation of the latest available documentation and actions toward adaptation and mitigation of climate change effects in Lebanon. All national climate priorities are taken into consideration, with the emphasis on the drastic changes in Lebanon due to economic and financial struggles between 2018-2022, the COVID-19 pandemic and the 2022 elections.

Among others, the main recommendations are given under the following titles:

## 1) Policy, Strategy and Legal Framework / Planning (including NAP and LEDS)

- Finalising the National Policy Framework in a way that NDC priorities are applicable to both local areas (where there is a lack of such policy) and international efforts towards the rehabilitation of Great Beirut.
- Establishing methodological approaches, plans, clear calendars, time schedules and cost estimations for climate actions so that methodologies, templates, and guidelines are compatible with UNFCCC and adaptable by different ministries.
- Initiating the NAP and LEDS preparation process along with a systematic data collection system to support the legal and institutional framework. To achieve the desired outcomes, national and city-level priorities should be interlinked and always involve national and local authorities.
- Developing climate coordination mechanisms like formulation of codes of conduct to harmonise climate action targets, improve public communication and visibility of government actions towards climate change, integrate local authorities, communities and vulnerable groups and develop dedicated climate governance at the city level.

## 2) Budgeting and Investment Framework

- Improving private sector involvement in climate projects via promoting climate-sensitive incentives, financial benefits, fiscal measures and technical assistance for PPP and local authorities.
- Ensuring local authorities and city-level priorities relevant to climate actions are integrated to NDCs and innovative finance tools.

## 3) Monitoring and Evaluation (M&E) Framework

- Developing and/or improving existing systems on data collection, measurement, and analysis of GHG inventory, climate action tracker and monitoring indicators, cross-sectoral reviews and NDC mainstreaming at different levels.

## 4) Capacity Building Activities

- Providing national and local level capacity-building activities on data collection, climate-related sectoral needs in infrastructure and machinery and budgeting.
- Building a National Climate Planning team and assigning promoting actions of the SEACAP to emphasise local needs.
- Conducting training assessments and integrating trainings with national policies, guidelines, climate finance capacity and international donor expectations on climate actions.
- Ensuring necessary tools and guidelines are available for national policy and planning.
- Promoting awareness raising activities towards climate actions and public communication in between ministries and local authorities to deliver a synchronized messages to the public.
- Integrating gender mainstreaming to the whole NDC implementation efforts at national and local level

# Glossary

<b>3RF</b>	Reform, Recovery and Reconstruction Framework
<b>BAU</b>	Business as Usual
<b>CAS</b>	Climate Action Coordination Strategy
<b>CBIT</b>	Capacity Building Initiative on Transparency
<b>CC</b>	Climate Change
<b>CIP</b>	Capital Investment Program
<b>CO2</b>	Carbon Dioxide
<b>EE</b>	Energy Efficiency
<b>ESCO</b>	Energy Service Companies
<b>GCF</b>	Green Climate Fund
<b>GDP</b>	Gross Domestic Product
<b>GHG</b>	Green House Gas
<b>HRC</b>	High Relief Commission
<b>INDCS</b>	Intended Nationally Determined Contribution
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPP</b>	Independent Power Producers
<b>LA</b>	Local Authority
<b>LCA</b>	Lebanon Climate Act
<b>LECB</b>	Low Emission Capacity Building
<b>LEDS</b>	Low-Emission Development Strategy
<b>LEV</b>	Lebanon Economic Vision
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MEDSTAT</b>	Euro Mediterranean Statistical Cooperation
<b>MoE</b>	Ministry of Environment
<b>MRV</b>	Monitoring Reporting and Verification
<b>NAP</b>	National Adaptation Plan
<b>NCG</b>	National Coordination Group
<b>NDC</b>	Nationally Determined Contribution
<b>PPP</b>	Public Private Partnership
<b>RE</b>	Renewable Energy
<b>SDG</b>	Sustainable Development Goal
<b>SEACAP</b>	Sustainable Energy Access and Climate Action Plan
<b>SSM</b>	SEACAP Support Mechanism
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>USD</b>	US Dollars
<b>VAT</b>	Value Added Tax

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# Climate Profile of Lebanon

Population 2019 <sup>1</sup>	6.855.713	CO2 emissions (metric tons per capita, 2016)	3,7
		Annual share of global CO2 emissions (2017) <sup>2</sup>	0,08%
GDP (current US\$ as of 2019)	51.992 million US\$	Total budget necessary for NDC <sup>3</sup>	320 million US\$ in 2020
GDP growth (annual % as of 2019)	-6,7%	Total budget necessary for unconditional goals (highest-emissions scenario)	21.200 million US\$ in 2020
Revenue excluding grants (% of GDP as of 2019)	19,2%	Total budget necessary for conditional goals (lowest-emissions scenario)	15.200 million US\$ in 2020
Pump price for gasoline (US\$ per litre as of 2016)	0,74	Budget for Adaptation <sup>4</sup>	no budget available
Electricity Price (US\$ per kWh as of 2019) <sup>5</sup>	0,26	Budget for Mitigation <sup>6</sup>	no budget available
Value added Sectors (% of GDP as of 2019) - Agriculture, forestry, and fishing - Industry (including construction)	3,073% 12,762%	CO2 emissions % per sector (2016) <sup>7</sup>	Electricity: 28% Transport: 23% Agriculture: 3,3% Waste: 10,7%
Annual average budget per inhabitant of municipalities	N/A	Energy production % from renewable energy sources for low-demand scenario (2019) <sup>8</sup>	Wind: 2,95 to 3,23 Solar PV: 1,11 to 8,75 Hydro: 7,94 to 8,02

<sup>1</sup> World Bank Data (source for all if not specified otherwise)

<sup>2</sup> <https://ourworldindata.org/co2/country/lebanon>

<sup>3</sup> Lebanon's Third National Communication to the UNFCCC

<sup>4</sup> Lebanon's Second Biennial Update Report to the UNFCCC

<sup>5</sup> <https://www.lorientlejour.com/article/1181345/generateurs-privés-le-prix-du-kwh-a-026-dollar-en-juillet.html>

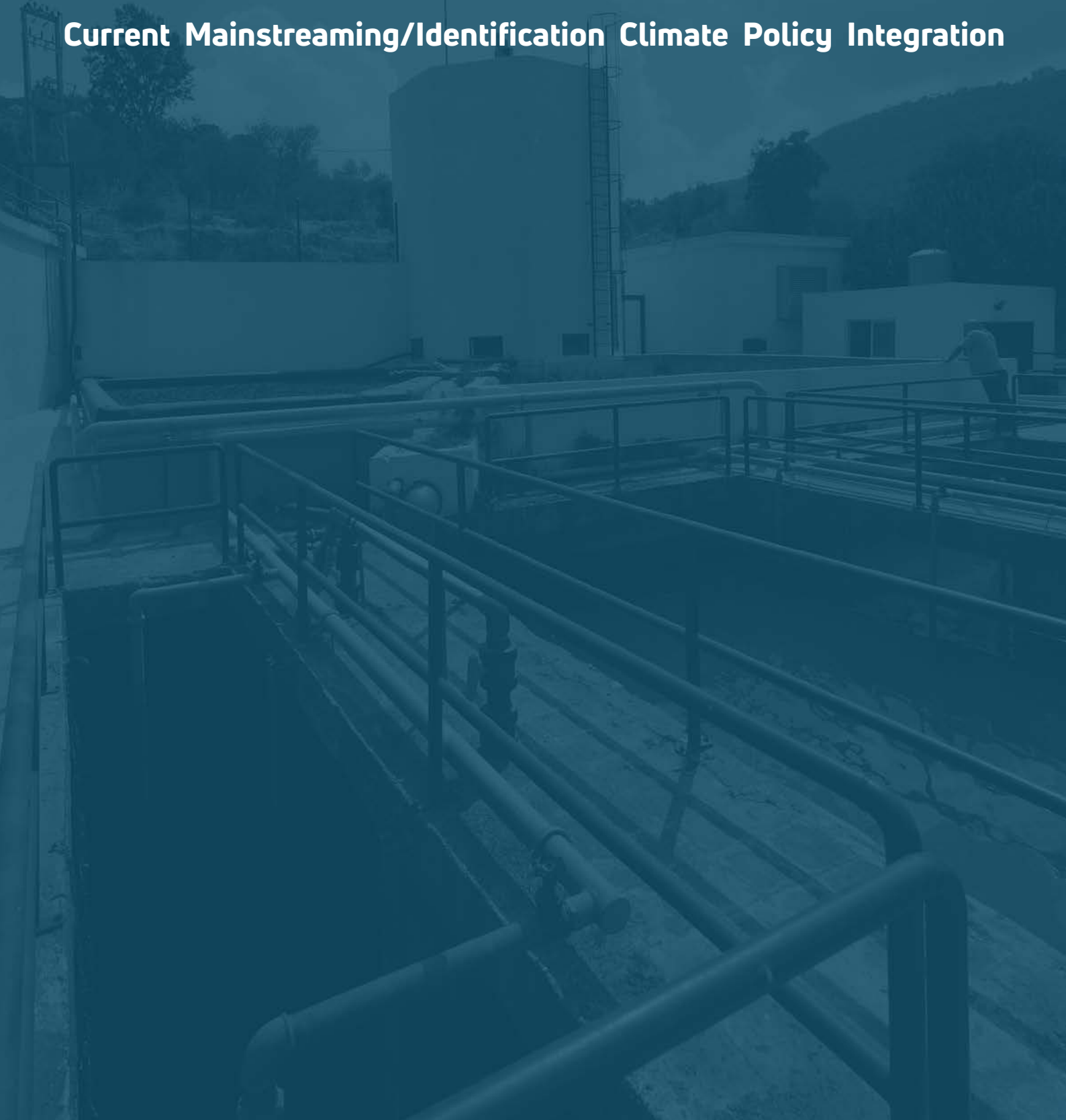
<sup>6</sup> Lebanon's Second Biennial Update Report to the UNFCCC

<sup>7</sup> Lebanon's Third National Communication to the UNFCCC

<sup>8</sup> <http://climatechange.moe.gov.lb/viewfile.aspx?id=214>

# PART A

Current Mainstreaming/Identification Climate Policy Integration



## PART A - Current Mainstreaming/Identification Climate Policy Integration

This section consists of six sub-sections. Within those, we will endeavour to present a screening of the NDCs' mainstreaming in the bounds of multiple identified national and local development programs, policies, strategies, and plans. In addition, this section will identify the priorities of INDCS and the national policy framework, which also remains linked to local authorities.

Component A provides initial guidance and background information for the preparation of the second segment, Component B, will be where the report aims to present the specified recommendations for a Local Climate Action Coordination Strategy.

While this CAS is being prepared in 2021 and 2022, Lebanon's national circumstances changed drastically between 2018 and 2021 due to an unprecedented economic, financial, monetary, and banking crisis amidst the global COVID-19 pandemic and 2022 elections.

On August 4th, 2020, an explosion at the Port of Beirut and the COVID-19 pandemic created a recession in the already struggling economy and caused high declines in GDP. As for the cost of climate inaction, it is estimated as excessive as 80.7 USD billion in 2040. This includes the direct damage from heat waves, droughts, and storms, as well as indirect damage from slower economic growth. The 2022 elections should result in a new government and new policy era, during which time the CAS

### 1. Lebanon's Role in Global Climate Action

Lebanon has been a Party to the United Nations Framework Convention on Climate Change (UNFCCC) since 1994 (Law 359/1994) and ratified the Kyoto Protocol in 2006 (Law 738/2006), and the Paris Agreement to the UNFCCC (Law 115/2019 and Decree 5599/2019). In compliance with the provisions of the Paris Agreement, Lebanon submitted its Nationally Determined contribution (NDC) in 2015 and 2020 submitted the updated NDC. The Revised NDC 2020 sets clear emission reduction targets, and progress of its implementation is not reported in this BUR4, as it will be reported in Lebanon's first BTR according to Decision 18/CMA.1. Currently, no major legislation directly addresses climate change action in Lebanon.





## 2. National Climate Actions in Lebanon

### 2.1 Identified National Climate Policy Framework for National Climate Actions

The National Climate Policy Framework includes political commitments, mandates, and laws that support the integration of mitigation and adaptation objectives into the country's development planning and sectoral strategies. The below table provides short highlights on each document of the identified national policy framework. These highlights don't aim to be

comprehensive but to give an overview and priorities of the current national policy framework. The list is open to be enlarged upon recommendations and suggestions of the Focal Point and the National Coordination Group (NCG) members and building on additional actions or policies when occurring, noting that the NCG would be set to associate representatives of key national authorities into the Clima-Med related actions, and primarily to help develop and at a longer run, to adhere to the recommendations for Climate Coordination Strategy.

Title of the Document in English	Date
First National Communication to the UNFCCC	2001
Second National Communication to the UNFCCC	2011
Third National Communication to the UNFCCC	2016
Second Biennial Update Report to the UNFCCC	2017
Intended Nationally Determined Contribution under the UNFCCC	2015
Lebanon's Nationally Determined Contribution, Updated 2020 Version	2020
Lebanon's Fourth Biennial Update Report to the UNFCCC	2021
<b>National Plans (Post -2020)</b>	
Lebanon Reform, Recovery and Reconstruction Framework (3RF)	2020
Lebanese Government Financial Recovery Plan	2020
Lebanon Economic Vision	2019
<b>Mitigation Measures (Pre- 2020)</b>	
The National Bioenergy Strategy for Lebanon	2012
The Second National Energy Efficiency Action Plan for the Republic of Lebanon	2016-2020
<b>Adaptation Measures</b>	
Ministry of Agriculture Strategy	2015-2019
National Water Sector Strategy	2010
2020 Update	2020 Update
<b>Additional Policies</b>	
National Health Strategy	2021
Standard operating procedures to integrate gender into climate change policies, plans and reports	2020
National Strategy for Conservation and Management of Plant Genetic Resources for Food and Agriculture in Lebanon 2015 – 2035	2020
The National Strategy for Women in Lebanon 2011-2021	2019

## 2.2 Linkage of National Policy Framework to NAP, LEDS, and MRV

Lebanon kicked off its National Adaptation Plan process in 2017 with a large stakeholder consultation meeting. However, at the date of this report, Lebanon has not prepared yet a document dedicated to National Adaptation, Low emission development or MRV. The “Climate-proofing of Lebanon’s Development Plans” document (in 2021) prepared by UNDP includes analyses of climate perspectives of some national policy framework documents. The Clima-Med team prepared an annexed study addressing NAP, LEDS, and MRV development needs as an introductory document towards defining concrete related actions.

**The 3-year development priorities of the Financial Recovery Plan:** The primary purpose of this plan is to overcome short-term financial challenges. Among the measures suggested are providing 10-15USD billion in external financing, a deliberate devaluation in currency, and a combination of defaults and postponements on foreign currency debt. The plan also lists structural reforms among its objectives, including grid modernisation, anti-corruption measures, and social protection.

**Lebanon Economic Vision (LEV):** The LEV charts out a national strategy for reviving the economy through targeted investments in the sectors it has identified as the core engine of growth. The strategy is based on comprehensive national and sectorial diagnostic assessments and a review of international best practices. It aims to increase GDP growth to 6% within three years of implementation and cut the unemployment rate by 50% in five to seven years. The LEV recommends investing in 5 promising sectors: agriculture, industry, tourism, financial services, and the knowledge economy.

**The Capital Investment Program (CIP):** The CIP outlines infrastructure projects that both align with national development goals and create opportunities for economic growth in the short and medium-term. The document covers infrastructure projects in transport, water and irrigation, wastewater, electricity, telecommunications, solid waste, tourism, and industrial sectors. For each sector, the programme’s plan presents an assessment and gap analysis and identifies how the sector’s infrastructure needs line up against SDGs.

**Mainstreaming of climate change a legislative requirement.** Despite the absence of NAP, LEDS and MRV, mainstreaming efforts by the Ministry of Environment have been successful in several key initiatives, as presented in the following sections.



### 3. Priorities of the NDCs and National Policies

The below table's aim is to identify convergence between the country's NDCs and its national policies and strategies.

#### 3.1. Lebanon's Nationally Determined Contribution (Updated 2020 Version)

Adaptation Priorities	Mitigation Priorities
<p><b>(i) Agriculture</b> - Promote climate-smart practices and sectoral resilience (p.9)</p> <p><b>(ii) Forests</b></p> <ul style="list-style-type: none"> <li>Promote natural resource management (incl. restoring degraded landscapes, increasing forest cover, and complying to sustainable forest management) (p.9)</li> <li>Adopting early warning systems, risk mapping and multi-hazard risk assessments (p.9,12)</li> </ul> <p><b>(iii) Water</b></p> <ul style="list-style-type: none"> <li>Assess, enhance, and refresh water resources and capacity of coasts (p.11)</li> <li>Adopting operational, sustainable, legal, and institutional framework on water management with collaboration and coordination mechanisms to monitoring and transparency (p.10)</li> <li>Establish structural financial, operational, and institutional framework for sustainable water management (p.10)</li> </ul> <p><b>(iv) Environment</b></p> <ul style="list-style-type: none"> <li>Conducting a gap study between ecological footprint and biocapacity for different states (p.10)</li> <li>Implement rehabilitation plans in degraded sites (p.11)</li> </ul> <p><b>(vi) Biodiversity</b></p> <ul style="list-style-type: none"> <li>Adopt biodiversity management for terrestrial and marine biodiversity (p.10)</li> </ul> <p><b>(vi) Health</b></p> <ul style="list-style-type: none"> <li>Assess and empower public health and safety system for climate resilience (p.15)</li> </ul>	<p><b>(i) Energy</b></p> <ul style="list-style-type: none"> <li>Renewable Energy - Unconditionally generate 15-18% of the power demand (electricity demand) and conditionally generate 30% of the power demand (electricity demand) from RE sources</li> <li>Energy Efficiency - Ensure power demand reduction between 3-10% (p.6)</li> </ul> <p><b>(ii) Building</b></p> <ul style="list-style-type: none"> <li>Unconditionally generate 11% of the heat demand from RE sources (p.5)</li> <li>Conditionally generate 16.5% of the heat demand from RE sources (p.5)</li> </ul> <p><b>(iii) Water</b></p> <ul style="list-style-type: none"> <li>Promote irrigation using clean energy resources (p.10)</li> </ul>

#### 3.3. Second National Energy Efficiency Action Plan for the Republic of Lebanon

##### Mitigation Priorities

##### **(I) energy**

- Transforming power plants for energy saving
- Increasing ee of transmission network of edl
- Changing the voltage level of the distribution system for energy saving
- Installing automatic meter reading (p.57)
- Developing minimum energy performance standard and labelling program at sector and equipment level
- Boosting financing mechanisms to implement energy efficient measures in the building, industrial, and Agricultural sectors (p.70)
- Adopting energy law for ee, audits, labels and incentives (p.80)
- Public lighting with ee solutions (p.145)

### **(ii) building**

- Increasing ee through double wall ordinance
- Adopting thermal insulation standards and properties (p.90,91)
- Improving ee standards and energy performance certifications (p.93,96)
- Renewing or replacing equipment in buildings for ee purposes (p.95)
- Implementing energy audits and energy efficiency measures in public buildings (p.99,101)
- Implementing pilot projects for green building and energy efficient product applications

### **(iii) industry**

- Energy audits for industrial operations (p.111)
- Ensuring equipment compliance, measures, and industrial permits for ee (p.116)

### **(iv) agriculture**

- Installing variable speed drives on irrigation pumps (p.119)

### **(v) transport**

- Diffusing technologies for fuel saving and powertrains for passenger cars (p.129,130)
- Hybrid electric vehicle to ensure ee (p.130)
- Bus rapid transit system and better traffic management to reduce energy consumption and emissions (P.130,131)
- Incentives for high-tech car purchases (p.131)
- Reducing number of imported used cars
- Promoting eco-driving, environmental issues in taxes, inspections, regulation, and standards
- Promoting public/collective transportation

## **3.4. Lebanon's Third National Communication to the UNFCCC**

### **Adaptation Priorities**

#### **(i) Water**

- Reducing saltwater intrusion of coastal freshwater (p.148)
- Increasing water-use efficiency of domestic, industrial, and agricultural sectors (p.148)
- Developing watershed-managed plans (p.148)
- Investigating alternative sources of water supply (p.148)
- Improving the available information about water resources and water systems (p.148)
- Promoting rainwater harvesting from roads and greenhouse tops (p.148)
- Establishment of water user's associations to increase the sector's resilience (p.148)

#### **(ii) agriculture (all p. 151)**

- Increasing water-use efficiency of irrigation systems
- Developing species/hybrids more tolerant to high temperatures and drought
- Changing the timing of planting, irrigation, and harvesting
- Adopting sustainable agricultural practices and integrated pest management
- Developing rangeland management

#### **(iii) forestry and biodiversity (all p.152)**

- Reducing fragmentation, promoting reforestation and protecting biodiversity
- Managing risk of fire, pest, and disease

### **Mitigation Priorities**

- Reducing ghg emissions by 15% by 2030 (unconditionally) and by 30% (conditionally)

#### **(i) energy**

- Implementing energy policy paper on re, smart grid, ee and tariff restructuring to reduce emissions by 26% by 2030 (p.72)
- Energy reduction via fuel sourcing, distribution, technology, regulations (p.76)

#### **(ii) transport**

- Increasing fuel-efficient vehicles and hybrid electric vehicles (p.79)
- Promoting mass transport to reduce emissions by 40% by 2040 (p.80)
- Renewing the fleet with efficient vehicles to reduce emissions by 19% by 2040 (p.80)

#### **(iii) industry**

- Creating a dialogue platform between the government and the cement factories (p.89)

#### **(iv) agriculture**

- Conserving water, fuel, land and labor to reduce ghg emission (p.89,90)
- Introducing fertigation in agricultural land are surface irrigation (p.91)



- Awareness raising on ecosystem services derived from forests

#### **(iv) public health (all p.154)**

- Awareness raising on climate change and public health interactions
- Strengthen systems, strategies and institutions for monitoring and responding to the health effects of climate change

#### **(v) electricity (all p.155)**

- Improving energy-use efficiency of buildings and transportation systems
- Developing energy-supply systems

#### **(vi) coast and ecosystem (all p.156)**

- Preventing human activities in coasts
- Strengthening coastal marine reserves for adaptation abilities of habitats and species
- Reducing the stress on coastal resources from the emission of pollutants
- Promoting coastal communities to better adopt climate change

#### **(vii) tourism (all p.156)**

- Developing better insurance, short-run tools and long-run plans against sectoral risks
- Reducing the stress on climate-sensitive natural resources

#### **(v) land use and forestry**

- Preserving and increasing existing forest and wooded land via afforestation, reforestation
- Adoption of reforestation fund to establish an enabling environment (p.101)

#### **(iv) water and wastewater**

- Achieve 70% of disposal in solid waste disposal sites by 2040 (p.104)
- Adopting waste-to-energy strategy to replace landfilling and open dumping (p.106,109)
- Improving wastewater treatment services, capacities and socio-political environment



### **3.5. Ministry of Agriculture Strategy 2015-2019**

#### **Adaptation Priorities**

##### **(i) Agriculture and food**

- Promoting good agricultural practices (organic farming, quality certificates and training) (p.48)
- Elaboration of agricultural infrastructure and irrigation water plans (p.52)
- Increase reclaimed and irrigated lands, agricultural lands and agricultural roads
- Identification of crop/vegetable production advantages (p.52)
- Conservation, production, and cultivation of wild fruit trees (p.69)
- Supporting the mutual fund for the insurance against the natural disasters
- Strengthening agricultural statistics and capacity in economic research (p.77)
- Promoting coordination and cooperation
- Elaborating a response plan for disasters and crises including creation of disaster crises management unit (p.79)

##### **(ii) Forestry**

- Increasing forest land via afforestation and reforestation (p.56)
- Protective measures against fire and pest threats (p.56)
- Training for harvest and wood & non-wood forest product investments (p.56)
- Training and assessment of forest resources (p.56)
- Promoting good governance in forest management, rangeland management, rangeland & pastoral plant assessment

##### **(iii) Water**

- Increasing irrigation water storage quantity and distribution (p.60)
- Technological development and increasing efficiency of irrigation (p.60)
- Activating use of treated wastewater and renewable energy in agriculture and irrigation (p.60)
- Activating partnership between the public sector, universities, research centers and associations (p.61)

- Ensuring quality assurance and control of extension services (p.62)
- Strengthening agricultural extension centers (p.62)
- Promoting research on irrigation, biodiversity in unprotected ecosystem and plant genetics
- Strengthening the early warning system

**(iv) other**

- Mainstreaming of the ministry of agriculture’s activities towards cc (p.81)
- Introducing adaptation measures in the work of the ministry of agriculture (p.81)
- Estimating ghg emissions of agricultural sector, land use and forestry (p.81)

### 3.6. Lebanon’s National Biodiversity Strategy and Action Plan

#### Adaptation Priorities

- 50% Conservation actions implemented and sustainably managed on ecosystem, threatened species, fauna, and flora by 2030 (p.95,96,98)
- Implementation of cartagena protocol on biosafety by 2030 (p.96)
- Enforce national law on access and benefit sharing by 2030 (p.101)
- Control the introduction and diffusion of invasive alien species (p.102)
- Increase awareness on biodiversity and conservation (p.74,84)
- Address biodiversity priorities in policy making process and implement them
- Protecting at least 20% of natural terrestrial and marine ecosystems by 2030
- 5% Increase in nature reserve coverage by 2030 (p.98)
- Reach the equal state in ecological footprint and bio-capacity (p.99)
- Implement natural resources management and rehabilitation plans on at least 20% of degraded sites (p.77)

### 3.7. National Water Sector Strategy

#### Adaptation Priorities

- Optimize qualified surface water, protect groundwater and shared water resources
- Ensure and improve quality water supply and water supply transmission and distribution
- Increase wastewater collection network and treatment capacities (reusage of treated wastewater (p.23,26)•
- Support water sector reform, capital spending and irrigation management
- Implement new tariff services, ppp and cost-recovery
- Enhance legal and regulative setup
- Address environmental concerns by achieving advance cc knowledge, flood mitigation and recharge zone protection
- Conduct awareness raising and conservation campaigns (p.23)
- Introducing conservation kits, adopting ee solutions (in irrigation methods), completing retrofitting, auditing and awareness raising (p.36)

### 3.9. National Bioenergy Strategy for Lebanon - 2012

#### Adaptation priorities

**(I) forest, environment and biodiversity**

- Adopt land use planning and land protection for carbon conservation (p.214)
  - Monitor and enforce the exclusion of high conservation values for biomass production (p.214)
  - Reforestation degraded lands by woody biomass and grassland rehabilitation by energy crops (p.214)
  - Protection & legislation for forests (p.214)
- And precautionary measures against forest fire
- Adopt good forestry practices for bioenergy production (p.215)
  - Increase the potential of bioenergy through resource management (p.214)

#### Mitigation priorities

**(I) energy**

- Introduction of alternative energy applications as residue, manure stream and bioenergy (p.214)
- Switch to re in biodiesel production and energy recovery practices (p.214, 64)
- Monitor and enforce legislation on air emissions from bioenergy (p.215)

**(ii) water and waste**

- Limit water usage in bioenergy projects (p.214)
- Adopt wastewater and sludge for bioenergy production (p.215)
- Install water treatment systems and other bioenergy instruments (p.215)

- Ensure financial incentives for production of renewable energy as fossil fuel resources (p.214)

**(ii) agriculture**

- Agricultural management and compliance of law for soil conservation by using residue for product ratios (p.215)
- Consider vulnerability of soil erosion in agricultural operations and setting monitoring and technology development for processing units (p.215)

**(iii) water and waste**

- Introduce bioenergy feedstock to avoid additional water withdrawals (p.215)
- Ensure cooperation for water rights
- Use biomass resources on waste generation and disposal (p.215)

- Use biomass resources on waste generation and disposal (p.215)
- Waste to energy strategy (p.90)

**3.10. Lebanon's Second National Communication to the UNFCCC**

**Adaptation priorities**

**(i) agriculture**

- Set sustainable agriculture policy including shift to drip irrigation, integrated pest management, organic farming, renovation, shifts in planting and conservation
- Apply product level measures to increase efficiency (p.136)
- Promote research studies against climate change
- Rehabilitate relevant infrastructure and operational inefficiencies (p.137)

**(ii) electricity**

- Adopt renewable practices as hydropower (p.138)
- Improving security and reducing costs, losses and budget deficits in the electricity sector (p.139,140)
- Capacity building to cover sectoral gaps, reserve margin and transmission & distribution infrastructure (p.139)
- Ensure the supply of electricity (p.140)
- Reduce dependence on exported oil consumption (p.140)
- Capacity generation to meet cooling demand (p.140)
- Application of the thermal standards for buildings (p.140)

**(iii) water**

- Increase the resilience of groundwater to climate change in coastal areas (p.160)
- Water management to reduce water demand in the domestic, industrial and agriculture sectors (p.160)
- Develop watershed management plan (p.161)
- Demonstrate the feasibility of alternative water sources and develop necessary standards and guidelines (p.161)
- Develop a water database (p.161)

**Mitigation priorities**

**(i) energy**

- Capacity expansion to keep up demand (p.84)
- Switch of oil-fired power plants to natural gas by 2030 (p.84)
- 17% Increase in penetration rate of renewable technologies by 2030 (p.84)

**(ii) industry**

- Waste heat recovery and utilization for power generation in cement plants (p.88)
- Partial substitution of fossil fuels with alternative fuels or less carbon intensive fuels

**(iii) transportation**

- Revitalization of the public transport system
- Adopting car scrappage program (p.91)
- Promote vehicle and fuel efficiency
- Enhance traffic management and traffic flows
- Promote transport fund and PPP
- Integrate environmental issues into taxes, fees, and licensing
- Promote mass and collective transportation
- Improve logistics and fleet management

**(iii) building**

- Applying thermal standards in new buildings
- Retrofitting existing buildings (p.93)

**(iv) industry**

- Increasing the additive blend in cement production (p.94)
- Substitution of conventional pre-calcination method (p.94)

#### **(Iv) coastal zones**

- Create buffer zones and early warning system to reduce human impact against coastal hazards (p.165)
- Develop a defense strategy to control sea level rise via engineering (p.165)
- Adoption of integrated coastal zone management for ecosystem preservation and preventing natural hazards (p.165)
- Increase groundwater resilience (p.166)
- Capacity building in vulnerable coastal area protection (v.166)
- Increase small holder resilience (p.166)
- Establish an institutional mechanism to follow up on coastal zone impacts (p.166)
- Increase resilience of natural/historical coastal areas (p.166)

#### **(V) forestry**

- Increasing forest ecosystem services and forest management plans (p.175)
- Promoting ecological conservation, extension and diversification of protected areas, awareness raising, institutional capacity building and ecotourism (p.174)
- Pest management and landscape planning (p.174,175)

#### **(Vi) health**

- Ensuring public health concerns are addressed and integrated in action plans and implement adaptive strategies
- Institutional capacity building of public health systems (p.181)

#### **(Vii) tourism**

- Investing in the tourism infrastructure, vulnerable to cc (p.185)

#### **(Viii) Human settlements and infrastructure**

- Integrating cc risks in planning phase and contingency plans, urban planning (flood sensitive), design of building envelopes, emergency management plans, engineering – non-structural – financial – regulative measures (p.190,191)
- Ameliorating coordination between the high relief commission (hrc) and other governmental committees (p.191)
- Establishing “unit management disaster”
- Periodical training and capacity building activities (p.191)

- Replacing high efficiency parts in plants (p.94)
- Energy management and process control in grinding (p.94)
- Modification and optimization of clinker cooler (p.94)
- Adopting efficient transport system (p.95)
- Setting ghg emission reduction targets (p.95)
- Increase the flow of cdm revenues (p.95)
- Create a dialogue platform between government and factories (p.95)

#### **(V) agriculture**

- Manure management to minimize ghg emissions (p.95)
- Encouraging organic farming (p.97)
- Adopting efficient irrigation system (p.97)
- Promoting research, education, assistance, infrastructure, and institutional measures

#### **(Vi) forestry**

- Conserving existing forest carbon sinks via sustainable forest management, fragmentation, rehabilitation, reducing forest degradation
- Afforestation and reforestation (p.101)
- Substituting fossil fuels by forest-based biofuels (p.101)

#### **(Vii) waste**

- Landfilling with gas recovery for electricity generation (p.102)
- Adopting waste-to-energy plans (p.102)





### 3.11. Lebanon Reform, Recovery, and Reconstruction Framework (3RF) (December 2020)

Lebanon Reform, Recovery and Reconstruction Framework (3RF) is part of a comprehensive response to the massive explosion on the Port of Beirut on August 4, 2020. It is a people-centred recovery and reconstruction framework focusing on a period of 18 months that will bridge the immediate humanitarian response and the medium-term recovery and reconstruction efforts to put Lebanon on a path of sustainable development.

The 3RF aims to help Lebanon achieve three central goals in response to the Beirut Port explosion. First, a people-centred recovery that returns sustainable livelihoods to the affected population; improves social justice for all, including women, the poor, and other vulnerable groups; and ensures participatory decision-making. Second, the reconstruction of critical assets, services, and infrastructure that provides equal access for all to quality basic services and enables sustainable economic recovery. Third, the implementation of reform to support reconstruction and to help restore people's trust in governmental institutions by improving governance.

3RF is built on four strategic pillars (1) improving governance and accountability; (2) jobs and opportunities; (3) social protection, inclusion, and culture; and (4) improving services and infrastructure. None of those pillars has a special focus on mitigation or adaptation. On the other hand, the revised NDC do not refer to 3RF or include Beirut Cities – as other local authorities are active actors of the NDC.

## 4. Mainstreaming of International Commitments into National Actions

### 4.1. Linkage of the National Adaptation Plan Principles within the National Policy Framework

The National Adaptation Plan (NAP) aimed at identifying medium and long-term adaptation priorities and needs. One of its main objectives is to facilitate the integration of climate change adaptation, in a coherent manner, into relevant existing and new policies, as part of the development

planning processes. The 2010 Cancun Adaptation Framework and the Paris Agreement stress the importance of NAP as a complementary document to NDCs for all countries. Therefore, the revised NDCs must be accompanied by national adaptation planning processes in all countries.

The National Adaptation Plan (NAP) process is meant for countries to build resilience to the impacts of Climate Change through medium to long-term planning and to integrate adaptation considerations into all relevant policies and strategies. Whereas the adaptation components of NDCs communicate internationally a country's contribution to (and/or needs for) dealing with the impacts of Climate Change, NAP processes are domestic planning processes that would allow a country to identify, address and review their evolving adaptation need.

In 2017, Lebanon announced starting the NAP process with a big stakeholder meeting that opened a platform to discuss priority areas for climate change adaptation in Lebanon and identify the next steps in the formulation, implementation and monitoring and evaluation of the National Adaptation Plan (NAP). During this meeting, the main needs of the NAP process (from identification of climate change adaptation targets to implementation)

were defined as data needs, a joint, common platform for all actors, sustainable and institutionalized data generation and dissemination to successfully monitor climate change and establish a baseline, to determine capacity building needs on different levels.

In order for the implementation of actions to properly take place, parties also agreed on the necessity to formulate projects and to submit them to the Green Climate Fund (GCF) for funding. However, during the preparation of this report, we did not identify more progress in the NAP process.

### 4.2. Linkage of the Low Emission Development Strategy (LEDS) and the National Policy Framework

A Low-Emission Development Strategy (LEDS) is a national, high-level, comprehensive, long-term strategy developed by domestic stakeholders. Countries use different denominations for LEDS, such as Low Carbon Development Strategy, Climate-Compatible Development Plan, or National Climate Change Plan. The main criteria for a LEDS are identifying sources of GHG emissions and prioritizes options for their mitigation with solutions achieving development through mitigation actions. LEDs are a fundamental tool to envision low-emission development in alignment with broader sustainability, socio-economic and Climate Change adaptation goals. The Paris Agreement states that all countries should strive to formulate and communicate long-term low greenhouse gas emission development strategies (LEDS) and the Paris Agreement's accompanying decision invites countries to communicate a LEDS by 2020.

Lebanon is still preparing its Low Emission Development Strategy (LEDS) with the support of UNDP (Low Emission Capacity Building LECB project and NDC Support Programme NDCSP). In 2019, Lebanon received

a technical assistance from the Green Climate Fund under the “Country Programming Project for Technical Advisory Services for Lebanon” to develop, amongst other, a long-term strategy for Lebanon. Based on the results of the technical assistance, the LEDS was planned to be finalized by 2021.

In the meantime, the country is working on increasing energy production while decreasing GHG emissions with new projects in line with Energy Policy Paper (PP2010) implemented by the Ministry of Energy and Water. The implementation of the Energy Policy Paper inflicts a cumulative decrease of 83 million tonnes CO<sub>2</sub>eq. from 2009 to 2030, with an average annual decrease of 3.8 million tonnes Gg CO<sub>2</sub>eq. per year as compared to the Business as Usual (BAU) scenario. Starting 2019, a noticeable drop of 38% in emissions is observed, mainly due to the switch of most power plants from heavy fuel oil and diesel oil use to natural gas. The introduction of additional production capacity by Independent Power Producers (IPPs) contributes to reducing even further CO<sub>2</sub> emissions in 2024, 2027 and 2029.

#### 4.3. Linkage of the Monitoring, Reporting and Verification (MRV) and the National Policy Framework

The MRV concept, introduced by the Bali Action Plan in 2007, involving both developed and developing country parties, includes all measures which a country takes to collect data on green gas emissions (measuring), mitigation actions and support, to compile this information in reports and inventories (report), and to subject these to some form of international review or analysis (verification). UNFCCC requirements and the IPCC guidance on MRV leave flexibility for countries to decide how to meet reporting requirement according to the national circumstances and priorities.

A MRV established according to countries’ conditions helps national policy makers to track the impact of the mitigation policy and guide international support mechanisms on efficacy of supported action. There are three types of MRV systems: MRV of GHG emissions, conducted at the national level, which report it in the form of emissions inventory.; MRV of mitigation actions (e.g., policies and projects) which seeks to assess GHG mitigation effects as well as monitor their implementation and MRV of support (e.g., climate finance, technology transfer, and capacity building) which seeks to track provision and receipt of climate support.

Currently, no single entity is responsible for tracking and reporting on climate change projects and related expenditures in Lebanon. Low Emission Capacity Building Project in Lebanon (LECB) Program officials in Lebanon cite the lack of institutional memory from compiling previous inventories, the need to establish institutional arrangements for sharing data between

agencies, and greater involvement from the private sector as the major challenges facing the government on MRV.

Institutional arrangements have been developed to prepare and finalise BURs on a regular timetable. For example, the Ministry of Environment is required head compliment of GHG inventory and mitigation efforts. This will be done alongside other Lebanese ministries, especially those in charge of energy, water, agriculture, and universities. Lebanon plans to enhance the robustness and institutionalization of reporting mitigation actions through the participation in the NDC Partnerships and institutionalized tracking of activities with the Capacity Building Initiative on Transparency (CBIT).

CBIT aims to strengthen national institutions for transparency-related activities in line with national priorities; provide relevant tools, training, and assistance for meeting the provisions stipulated in Article 13 of the Paris Agreement and to assist in the improvement of transparency over time.

#### 4.4. Analysis of the Mainstreaming of the NDC in the National Policy Framework

The national policy framework documents that are prepared before the revised NDC focus mainly on water, agriculture, energy efficiency and bioenergy. Recent policy framework- revised versions include more aspects directly linked with climate change. The BUR 4 gives a brief analyses of climate change mainstreaming in sectoral initiatives with clear links and identifies climate change targets from some of national policy framework documents.

**The National Health Strategy 2021** includes a section on climate change and health which proposes a framework including “the assessment of the vulnerability of public health sector to climate change”, and “the development of health system response strategies, plans and projects and integrate them into national health strategies”.

**Ministry of Agriculture Strategy (2020-2025)** has in its fourth pillar the objective of “Improving climate change adaptation /sustainable management of agri-food systems and natural resources. The strategy includes a program to increase climate change adaptation and encourage related private investment along the agri-food value chains. In this perspective there is a specific measure to enhance the efficient use of irrigation water and expand the supply of water resources for irrigation. In the same perspective, the strategy also mentions the priority to support the use of renewable if all national stakeholders (including non- state actors such as municipalities which is slightly different than revised NDCs.).



Moreover, the policy framework issued after 2020 proposes standard operating procedures to integrate gender into climate change policies, plans and reports and the National Strategy for Women in Lebanon 2011-2021, which also illustrates effort for integrating gender mainstreaming to the whole NDC implementation efforts at national and local levels by linking national policy framework to 5-year enhanced Lima work program on gender and its gender action plan (Decision 3/CP - 25 December 2019) <https://unfccc.int/documents/204536>.

#### 4.5. Analysis of the Mainstreaming of the NDC in the national Priorities Linked to Local Authorities (LAs)

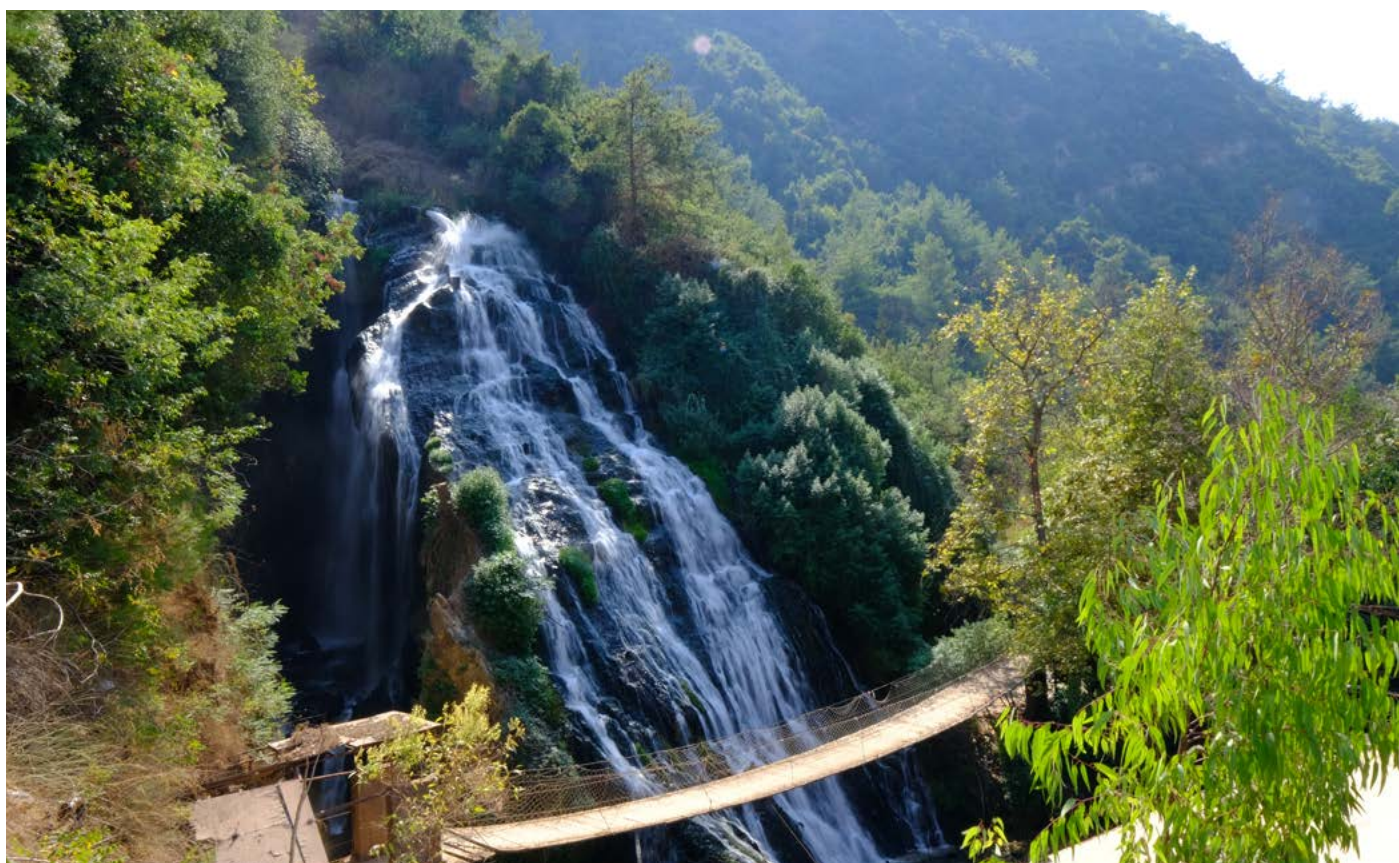
Lebanon's revised NDC did not consider local authorities as active and influential actors in climate action. For example, among the priorities of the NDC, there are only building sector priorities linked to local authorities' mandates. However, different national policy framework documents published since 2020 integrate local authorities as active actors in the targeted actions.

**The Financial Recovery Plan** is built on nine pillars that cover competitiveness, debt restructuring, financial system, fiscal adjustment, reforms for correction in the distribution of the GDP, reform of Electricité du Liban, environmental reforms, and the fight against corruption. Local authorities do not make part of the comprehensive plan as actors or beneficiaries, as there is no priority linked to local authorities' needs and intervention actions, except a project to transfer responsibilities of solid waste management to municipalities. The Plan foresees applying the subsidiary principle in

solid waste management as per the provisions of law 80/2018 governing the solid waste sector, including hazardous waste. Yet, there is no specification of local fiscal measures accompanying this role which can help local authorities make this mandate operational.

**Lebanon Economic Vision** tackles local authorities' role from the perspective of dealing the Greater Beirut under the heading of Urban Efficiency. The Vision considers that City Planning and efficiency is considered a key enabler for economic development and growth. On that score, the main challenges to be tackled include enhancing the overall liveability of the city by addressing mainly pollution and waste management issues, focusing on growing the offering and use of public transportation, developing a fully integrated urban plan, with clear land use allocation and reclaiming illegally used land particularly on greater Beirut's seashore.

Additionally, thanks to projects supported by international organizations and EU, the role of local authorities in Climate Actions became primordial and should be reinforced. Their contribution as leaders of climate actions is being strengthened gradually through several actions, namely those led by Clima-Med project, through which over thirty municipalities were trained to prepare SEACAPs and up to 15 have prepared their plans, each including specific climate projects. Many of those projects reported to be implemented. Moreover, 169 municipalities have joined the Covenant of Mayors Mediterranean (CoM-Med) initiative, confirming their commitment to climate actions within a larger regional and global widespread.



## 5. Coordination for Climate Policy

### 5.1. Clima-Med National Coordination Group Members

The NCG has been established in coordination with the Ministry of Environment (MoE) Unit in charge of Climate Change projects (Clima-Med nominated country Focal Point) to ensure that the project's deliverables will consolidate and be incorporated in the existing climate action coordination systems. The table below lists key institutions that are members of NCGs, who have been considered to ultimately act as key bodies to implement climate mainstreaming actions. Along the project's implementation, the NCG has been expected to acquire a key role in the Climate mainstreaming and endorse complementarity between key actors at national and local levels. Yet the role of the NCG in Lebanon came to a standstill following the political instability and limitation of governmental role since the October 17, 2019, events. Ever since, the MoE's Unit in charge of Climate Action have been acting as intermediary with key national authorities.

Entity/ Institution	Title	Name
Ministry of Environment	Director of UNDP Climate change Unit	Vahakn Kabakian
Ministry of Interior & Municipalities	General Director of Administrations & Local Councils	Faten Abou Hasan (Represented by Eng. Majid Hachem)
Ministry of Energy & Water	Advisor to the Minister	Michel-Ange Medlej
Ministry of Finance - UNDP	Economic Officer – UNDP Fiscal Policy Advisory and Reform Project – Office of the Minister	Fatima Cheikh Jaffal
UNDP - RPTA		Yara El Kassis

### 5.2. National Climate Coordination

The Ministry of Environment became the Coordinator of the NDC Committee in 2017, following the recommendation of the Council of Ministers. The Committee also includes the Ministry of Energy and Water, Presidency of the Council of Ministers, Electricité du Liban, the Ministry of Public Works and Transport, the Ministry of Agriculture, the Lebanese Petroleum Administration, the Ministry of Foreign Affairs, and the Ministry of Finance.

The NDC Committee tracks the implementation of all NDC elements. The Committee also:

- Implements the United Nations Framework Convention on Climate Change (UNFCCC), decisions related to the NDC, and its related support requirements.
- Assess needs for implementing sectoral/cross-cutting activities.
- Find linkages and opportunities to implement Lebanon's NDC and Sustainable Development Goals.
- Ensure NDC implementation respects human rights and gender equality.
- Prepare reports on NDC progress.



### 5.3. Non-State Actors and Climate Action Coordination

The Lebanon Climate Act (LCA) is a platform that brings all non-state climate leaders together to assist Lebanon in achieving the country's climate change ambition. The LCA aims to link economic growth and societal improvement via climate change mitigation. It leverages companies and institutions already involved in climate change mitigation, such as Green Mind, UNDP and the Central Bank and helps incentivise private sector involvement. It helps businesses support climate action through initiatives and approaches designed to provide sustainable, profitable, and effective responses.

Companies join the LCA to demonstrate their ongoing engagement. Each company sets actions to reduce an environmental and carbon footprint and increase low-carbon investments. Partnerships with public sector organisations are also a key part of the LCA action.

## 6. Cities' Climate Commitments, Sustainable Energy Access and Climate Action Plan (SEACAP) - Mainstreaming of SEACAPs

Among the measures common to SEACAPs submitted by Local Authorities from Lebanon, measures dealing with improving local climate governance and capacity building also take an important space.

Main SEACAP measures common to most local authorities are identified as follows:

- **Greening cities and planting trees.**
- **Supporting climate measures in the building sector**
  - Promoting energy-saving measures in local authority buildings and facilities and tertiary buildings and facilities, including hotels and resorts.
  - Promoting the use of energy-saving appliances in the residential sector.
  - Promoting the green building code and sustainable design in the urban planning
  - Promoting the use of RE in buildings
- **Supporting the agriculture sector**
  - Resource management for agriculture waste.
- **Greening urban transportation**
  - Road asset planning and management with smart mobility measures.
  - Promoting Green transportation and the use of hybrid cars.
  - Optimising fuel consumption for municipal solid waste collection through routing design and Control and applying sorting from the source.
  - Road asset planning and management with smart mobility measures
- **Tourism**
  - Promoting Eco tourism
  - Energy saving in heritage buildings and facilities.
- **Water**
  - Water resource management and reusing treated water.
  - Promoting drip irrigation and saving water resources.
- **Solid Waste management**
  - Measures related to improving waste management.
  - Enhancing community participation.
  - Improve tax collection waste.
  - Applying sorting from resources, investing in building sorting facilities.
- **Investing in biogas systems.**

# PART B

**Part B- Recommendations for Climate Action Coordination Strategy**

## Part B- Recommendations for Climate Action Coordination Strategy

The effective NDCs mainstreaming, and climate coordination require governance adjustment and institutional and cultural shifts.

The following recommendations for Climate Coordination Strategy are built on the assessment of National Policy framework, NAP and LEDS, as exposed in the preceding section. The aim is to contribute to the enhancement of the national climate coordination and mainstreaming of the NDCs into the National Policy framework and to the improvement of the NAP and LEDS.

### 1. Policy, Strategy and Legal Framework / Planning (including NAP and LEDS)

#### 1.1. Completing National Policy Framework in line with NDCs

It is indispensable to complete the preparation of the National Policy framework for the NDCs priorities, especially in areas with no dedicated policy framework, such as fisheries, food policy, marine development, tourism, and transport, as this will complement policies developed in the revised NDCs.

Moreover, it is central to align international efforts for the rehabilitation of Great Beirut with the priorities of the revised NDCs.

#### 1.2. Improvement of National Climate Action Planning Methodology

Towards improving the National Climate Action Planning methodology, the following is recommended:

- To carry out detailed planning course work for climate actions with adapted approaches, comprehensive plans, well-defined calendars, timing, and costs.
- To prioritise reviewing, linking, and putting on track the implementation of the NDC Action Plan, to be undertaken interactively with sectoral road maps (with complementary legislative setups, timelines, and costing), NAP, and LEDS.
- To widen accessibility to climate action's tools (plans and strategies), as interconnected with the NDCs and begin their effective dissemination to all actors involved in NDCs implementation. When a national policy framework document is not written in English, add an English executive summary for each document to facilitate its visibility and use. This will facilitate language accessibility and enhance its usability by international partners. In the same way, English documents and reports should be translated into Arabic to enhance their use at national and local levels.
- To incorporate and incentivise cities' efforts during the preparation of NAP and LEDS.

Different inharmonious planning methodologies and structuring approaches are applied and need to complement each other better. To face and overcome

this challenge, it is recommended:

- To gradually develop, harmonise, and apply common planning methodologies and compatible templates and guidelines.
- When elaborating planning guidelines, include instructions on how to better mainstream the NDCs into both national and local level policy, and
- To gradually synchronise the time horizons of plans and strategies related to NDCs for the use of all relevant ministries and along the UNFCCC timeline.

#### 1.3. Improvement of the National Climate Policy Framework, the NAP, and the LEDS

The following is recommended:

- To start the NAP and LEDS preparation process. And during the preparation of the NAP and LEDS, to ensure a direct link to the revised NDCs and to take into consideration recommendations of Clima-Med specific recommendations on NAP development.
- To complete the legal framework and institutional system for the MRV to establish a systematic collection of information. Currently, the lack of an MRV system causes an underestimation of the emission reduction that Lebanon is undertaking to combat climate change.

#### Specific sector-related recommendations include:

- To ensure the alignment of national and city-level climate policies, both top-down and bottom-up, start by assessing and communicating how city climate action plans align with national and international goals like the Paris Agreement and respective NDCs.
- To dedicate and launch adapted mechanisms to sponsor specific climate change projects and related sustainable urban development actions, starting by strengthening legal national-level standards, regulations, data systems, low-carbon and climate-resilient urban planning, and eventually carbon pricing instruments, including at the municipal level.
- To interlink, compile and assess recommendations, benchmark successes and lessons learned from the international partnership and locally-led projects such as Meet-Med, Clima-Med and CEDRO and propagate their replicability, involving national and local authorities.
- To upgrade the legal framework in RE and EE actions (such as ESCO regulations, local authorities)

coordination of energy systems, etc.). In the mitigation field, design and apply specific measures linked to energy efficiency and renewable energy.

#### 1.4. Towards Strengthening National Climate Coordination Mechanisms, the following is recommended:

The following is recommended:

- To formulate a Conduct Code of Cooperation among different institutions towards effective harmonisation of climate action targets and interventions.
- To give more visibility to the work led by the Climate Change Unit of the Ministry of Environment and policy framework documents that became public since 2020 (such as the National Health Strategy and Water Sector Strategy).
- To enhance public communication and visibility of all NDCs-related efforts as well as priorities of the revised NDCs.
- To advance and present suggestions on how to integrate representatives of local authorities, communities and vulnerable groups into the LCA initiative, and thus engage them in the aim of creating economic growth by addressing climate change challenges in Lebanon and link them to LCA's network of companies and institutions actively engaged in the fight for climate change.
- To revitalise the role of the NCG created in partnership with Clima-Med and seek the affiliation and participation of ministries and public institutions in charge of food, health, transport, and maritime affairs in the Group's decisions and engagements, which would strengthen and extend climate coordination and NDC mainstreaming.
- To establish a special unit to design and implement specific crucially needed adaptation strategies and measures, primarily for the ecosystem, mountainous areas, and coastal zone.
- To develop governance components to climate change action in addition to plans and targets. Climate governance aims to steer social systems toward preventing, mitigating or adapting to the risks posed by climate change. Especially in cross-sectoral thematic (such as forests) to provide guidance on how to involve relevant parties to handle climatic targets.
- To develop dedicated climate governance for supporting

cities' climate action to ensure long-term urban development aligned with climate sensitivity and SEACAPs.

## 2. Budgeting and Investment Framework

### 2.1. innovative and climate-sensitive fiscal measures and incentives

The following is recommended:

- To provide incentives and technical assistance to climate projects promoters from the private sector, including through improved regulation for the Energy Service Companies (ESCO) and open the climate change credit lines market.
- To expand tax benefits or other incentives in investment for energy efficiency goods and projects to larger areas of climate change.
- In tenders and calls for proposals launched by national authorities to fund local authorities' actions in Climate Change fields, it is recommended to embed in the call's selection criteria a priority or an additional incentive for local authorities that are committed to the CoM (and/or similar type of commitment) or are in the process of preparing or have prepared a SEACAP. This will encourage local authorities to prioritise the planning of their climate actions and mainstream NDC in their projects.
- To create tax benefits or other incentives for local authorities (e.g., creating VAT exemption for climate-sensitive investments of local authorities) as well as for private and public organisations, industries and households who would join energy-saving programs or initiatives led by local authorities (Tax benefits will help bring down costs and shorter return of investment).
- To better integrate and leverage climate criteria in intergovernmental and fiscal transfer systems.
- To enhance legal framework and technical assistance for PPP development at the national and local levels.
- Enhancing multiplication of relevant PPP models of municipal concessions (e.g., Municipal Trading Companies) inside the country with a technical assistance system for local authorities (This service can be provided through the SSM).- more detailed recommendation and guidance is provided in the climate finance guidebook.





## 2.2. Support local climate planning and the development of pipelines of bankable and replicable projects

The following is recommended:

- To add an annexe to the revised NDCs whereby the role of local authorities is integrated into well-assessed climate (mitigation and adaptation) plans and activities.
  - To review municipal finance revenue assignment structures, fiscal transfer mechanisms, and subnational borrowing frameworks to ensure they align with climate-smart criteria. These frameworks can be established for services that underpin planning and financial capacity building particular to climate as well as climate-smart capital investment.
  - To work toward the development of innovative financing tools to fund SEACAP projects, especially in small and medium-size local authorities with limited financial resources.
  - To adapt and leverage intergovernmental and fiscal transfer systems to support and incentivise city-level climate action.
  - To plan for the provision of direct green recovery stimulus funds to urban areas severely affected by the outcome of the severe economic and political crisis.
  - To improve urban climate finance tracking and data availability in order to offer an investment prioritization tool for national and subnational policymakers, international organisations, and impact-oriented investors. Tracking investments at the project level can include progress monitoring, measuring gaps, identifying synergies, and optimising and identifying opportunities surrounding the urban green transition. Specific instruments and responsible bodies would need to be formed and assigned to lead such roles.
  - To establish a national SSM that would act as a facilitator and an expertise centre that offers to local authorities of all sizes technical assistance in the preparation and implementation of SEACAPs (from initial formulation up to facilitating fundraising, bankability of projects, integration to municipal planning, awareness-raising and public communication etc.) The SSM can work in cooperation with the National Climate Planning team that will assist in preparing national strategies and nationally designated SEACAP Implementation Manager. (See section below).
- The SSM will also provide an umbrella platform for all actions, directly and indirectly, related to the NDC implementation within the local authorities' framework of action (e. g. support initiatives such as Smart Cities, Healthy Cities, Clean Cities, and altogether sustainable urban/municipal management). The aim is also to coordinate actions and perspectives of results, assess progress better, and avoid duplications of efforts.
- To involve local authorities in the NDCs mainstreaming process by defining and embedding climate considerations in all local planning levels, in addition to

SEACAPs.

- For local authorities, to adopt and implement local regulations and standards to incentivise private investment in green buildings, vehicles, equipment, and appliances.

## 3. Monitoring and Evaluation (M&E) Framework

### 3.1. Data Gap Analysis

The following is recommended:

- To reduce the vulnerability of the monitoring and evaluation framework
- To start and gradually develop a GHG inventory system to measure, analyse, price, and reduce emissions, based on simplified emissions scoping and reporting that is realistically adapted to the Lebanese context. All towards a long-term building of a national "climate action trackers – monitoring indicators", online platforms, portals, and scorecards to start and/or deepen national discussions around Climate Action and its national context. This will allow tracking climate actions and measuring them against Paris Agreement's aim.
- To use results and products and set cooperation with relevant support actions to fill the Data Gap, e.g., with the MEDSTAT project (Euro Mediterranean Statistical Cooperation).
- For the local authorities, to conduct a cross-sectoral analysis of available data to measure the progress of SEACAP implementation.
- To improve legislation to facilitate data collection in the private sector.
- To develop a national centre of information, curate data and assess the progress of NDCs mainstreaming at the national and local levels.



## 4. Capacity Building Activities

### 4.1. Human Resources at national and local levels

#### At national level

- To conduct capacity-building and on-the-job training activities for national experts on
- Data collection – i.e., developing a GHG inventory including detailed use of IPCC guidelines, data sheets, and calculations.
- Preparing future Climate Change Communications addressed UNFCCC.
- Preparing NAP and LEDS

#### At the local level

- The NDCs include a wide variety of actions involving directly local authorities in the agriculture sector for smart agriculture, community irrigation scheme, land use planning, and rangeland development; in the energy sector for promoting green buildings and upgrading grids; in the transport sector for promoting public transport; in the environment sector for expansion of green spaces; and the management of waste and wastewater sector, by promoting recycling, solid waste management, wastewater treatment.

To better accompany those requirements, it is essential to strengthen local authorities' human capacity in the sectors mentioned above and in the related infrastructural and machinery investments.

- To include the SEACAP plan within or build upon the Strategic Plans of municipalities and activate its implementation by linking this to the annual budget planning and/or allocation set for municipalities.
- To build a National Climate Planning team that will assist in preparing national strategies and will work in close cooperation with SSM Unit.
- To designate a "SEACAP Implementation Manager" in each local authority who will oversee the preparation and implementation of the SEACAP and work in close cooperation with the SSM Unit.

### 4.2. Training activities

The following is recommended:

- To assess needs towards holding nationally adapted training on NDC implementation, including answering needs and meeting challenges at the local level.
- To integrate training with national policy framework tools, templates and guidebooks for the preparation of SEACAPs (see 4.3.)
- In addition to SEACAP training through the proposed SSM, to also provide well-targeted capacity-building

actions for NCG members on how to develop a national guideline and implement NDC mainstreaming (namely, applying the advanced recommendations above).

- To provide specific capacity-building actions to raise climate finance capacity in different areas, e.g., interlinking existing national finance to ensure complementary with available international finance.
- To develop national capacity in developing project proposals responding to demands and expectations of international funding and donor agencies.

### 4.3. Tools/guidelines

The following is recommended:

- To ensure pertinent preparation of relevant syllabi, tools, and guidelines for planning national policy framework (integrate tools with capacity building activities see 4.2.)
- To use and make available SEACAP innovative planning guidelines, templates and multiple tools that will be available through the SSM, and planning guidelines adapted to national conditions. (to integrate guidelines with capacity-building activities, see 4.2.)
- To organise twinning activities through the institutions of NCG's members with countries where NDCs' mainstreaming in national plans is advanced.

### 4.4. Public Communication

The following is recommended:

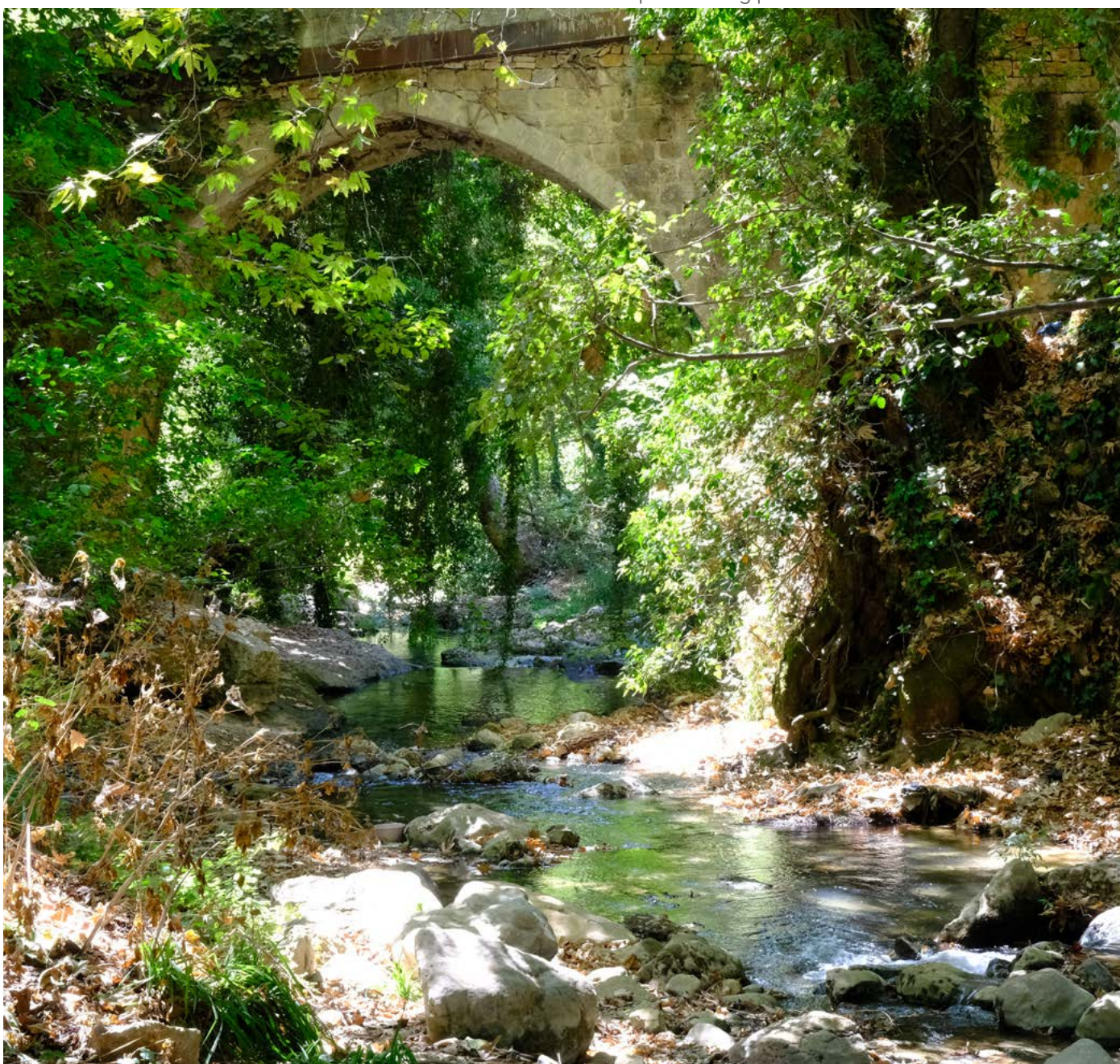
- To create a national office in charge of NDCs communication that would work horizontally with all relevant ministries and vertically with all local authorities in order to deliver a synchronised and complementary message to the public.
- To design and hold awareness actions at the national level, such as:
  - Preparing and launching general National Awareness Campaigns on several levels. Activities would, for instance, include Informative Posters; Short Films about climate change reality; a series of small testimonial films to promote creative minds and actions and eco-innovative solutions; campaigns to boost green entrepreneurship in the country and highlight successful actions taken by women entrepreneurs etc.
  - Including in all available national programs a climate awareness-raising component.
  - Designing and organising awareness actions at the civil society level, such as Youth Challenges Actions, to enhance young people's power and inspire them to join, addressing climate challenges in social media through best stories and actions. These can be posted on a specific blog where people can vote and share their favourite stories and pictures.



## 4.5. Gender mainstreaming

The following is recommended:

- To implement the existing national policy framework, The National Strategy for Women in Lebanon 2011-2021, in coordination with the 5-year enhanced Lima work program on gender and its gender action plan (Decision 3/CP - 25 December 2019) <https://unfccc.int/documents/204536>.
- During the update of the National Strategy for Women in Lebanon and preparation of the NDC action plan, to multiply gender-responsive indicators that are trying to measure gender-related changes over time, that is the situation of men and women and the resulting gap between women and men. Those indicators can be quantitative – for example, sex-disaggregated statistical data - facts and figures) or qualitative changes – for example, judgements and feelings or perception.
- To consider how to design activities for sectoral actions in climate initiatives that encourage equal participation and fair distribution of benefits. When designing activities for a project in a particular sector, integrate questions such as:
  - Is this activity the most appropriate and effective activity for achieving an improvement in gender equality in line with the climate action focus for the sector?
  - Will the activity reduce the equality gap between women and men in the sector in terms of access, income, labour or power?
  - Could the initiative do more to benefit different disadvantaged groups in the sector?
  - Who will be the implementing institution and partners for the activity in the sector? How gender-sensitive are the implementing partners?





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