

THE FIRST BIENNIAL TRANSPARENCY REPORT OF LEBANON

Facilitative Multilateral Consideration of Progress (FMCP4) – SB65

Antalya, Republic of Türkiye
November 13th, 2026

1. National context: reporting through multiple crisis



10,452 km²

land area



~5.5 million

population (2022)

~1.5 million

displaced Syrians

~-85%

Public electricity generation, 2019–2022

A sequence of shocks reshaped the emissions trajectory

2019 — **Economic & financial crisis**
Currency collapse • contraction

2020 — **COVID-19 + Beirut Port explosion**
Mobility & activity disruptions

2021–22 — **Fuel & electricity crisis**
Lower imports • EDL collapse

BTR1 — **New emissions profile**
More private generation & solar PV

ECONOMIC CONTRACTION

−67%

GDP per capita

2018–2023

Lower purchasing power, mobility, fuel use and industrial activity.

IMPACT ON EMISSIONS

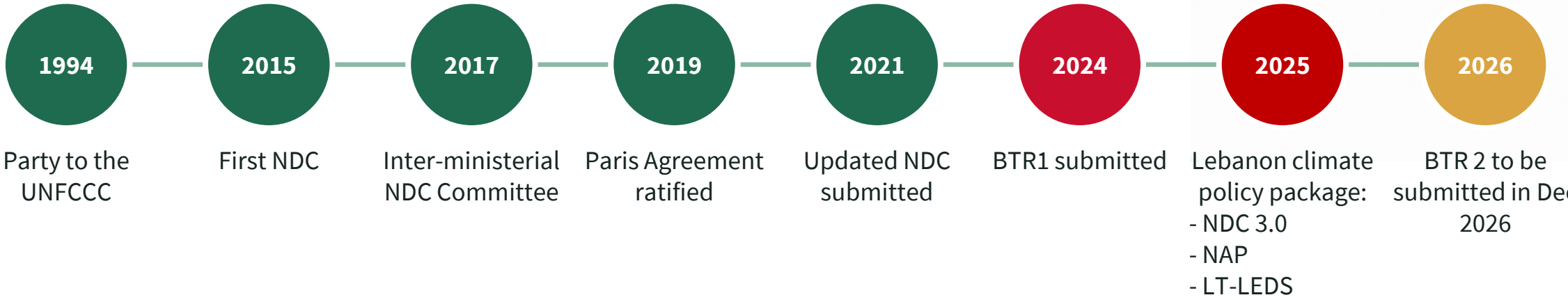
−32%

GHG emissions

2019–2022

Decline mainly reflects national circumstances—not mitigation policies alone.

2. Climate governance and transparency



Legal basis

- Access to Information Law 28/2017 underpins data requests
- Industry reporting decrees, e.g. Decree 8471/2012 and Air Quality Decision 16/1 (2022)

The gap

- No dedicated climate law: the NDC is the main legal anchor
- Decrees are only partly implemented because of capacity limits

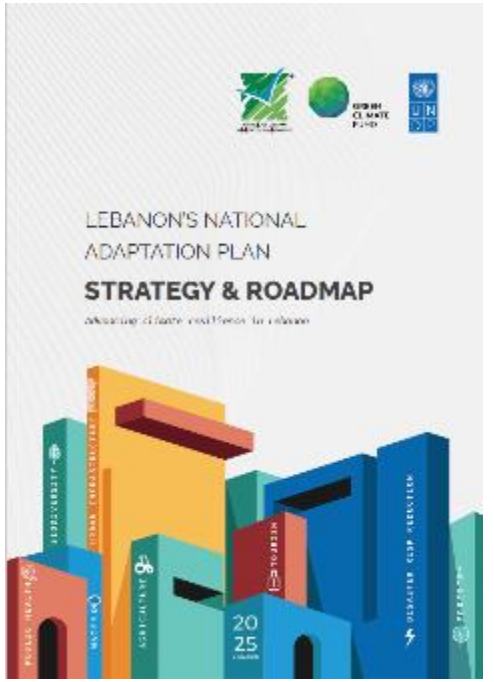
Ownership

- MoE is the national focal point and NDC coordinator
- Inter-ministerial NDC Committee since 2017 (CoM decision 33/2017)

3. National Climate Policy Framework

A national policy package anchoring mitigation, adaptation and long-term investment planning.







Together, these provide mitigation pathways, adaptation priorities, a long-term investment vision and a sectoral implementation framework.

Ministerial High-Level Conference on
“Investing in Climate for Growth and Development”.



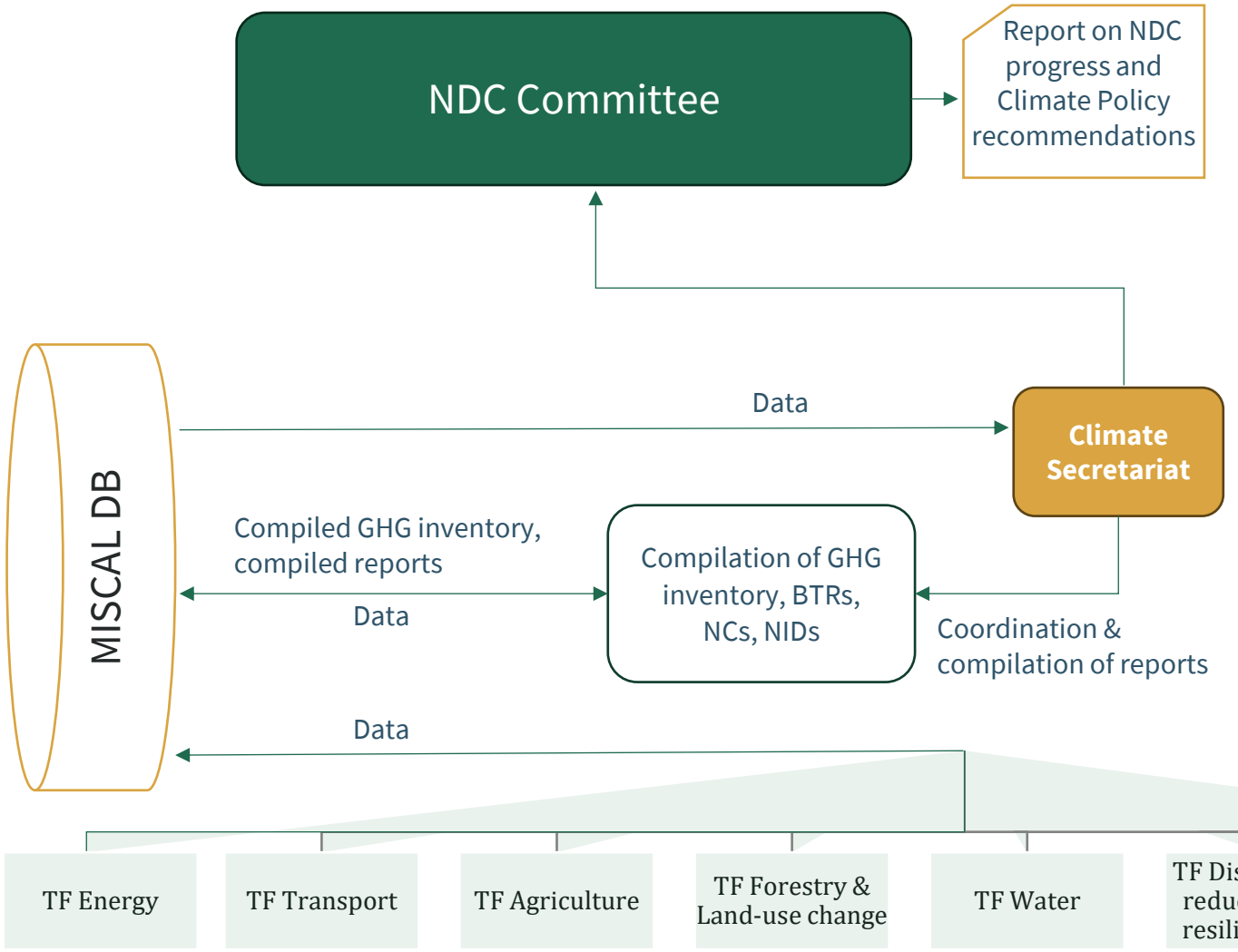


4. Institutional Arrangements

NDC committee to be insitutionalized through the Climate change Law

Climate secretariat coordinates and supports climate transparency activities

Task Forces collect GHG inventory data, NDC indicators, data on support needed/received and upload to MISCAL



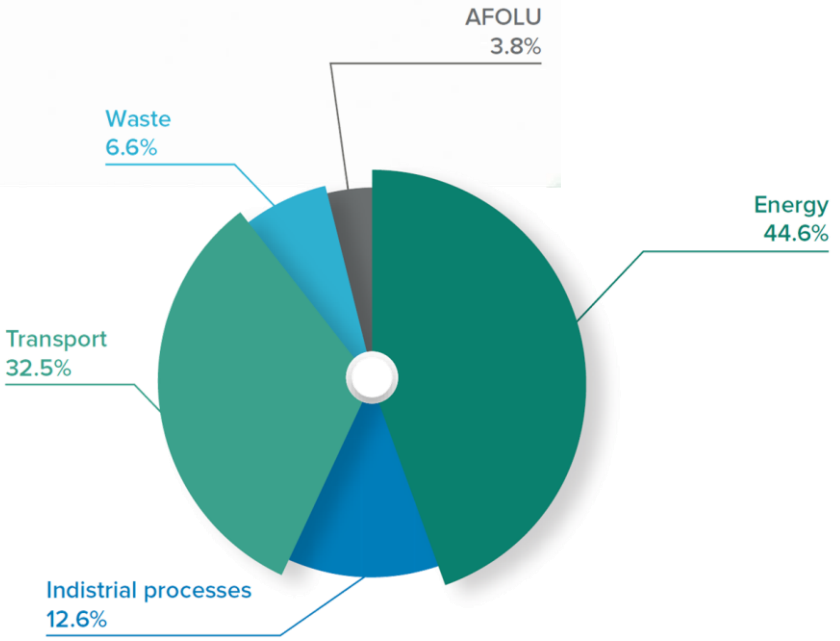
NDC Committee members:

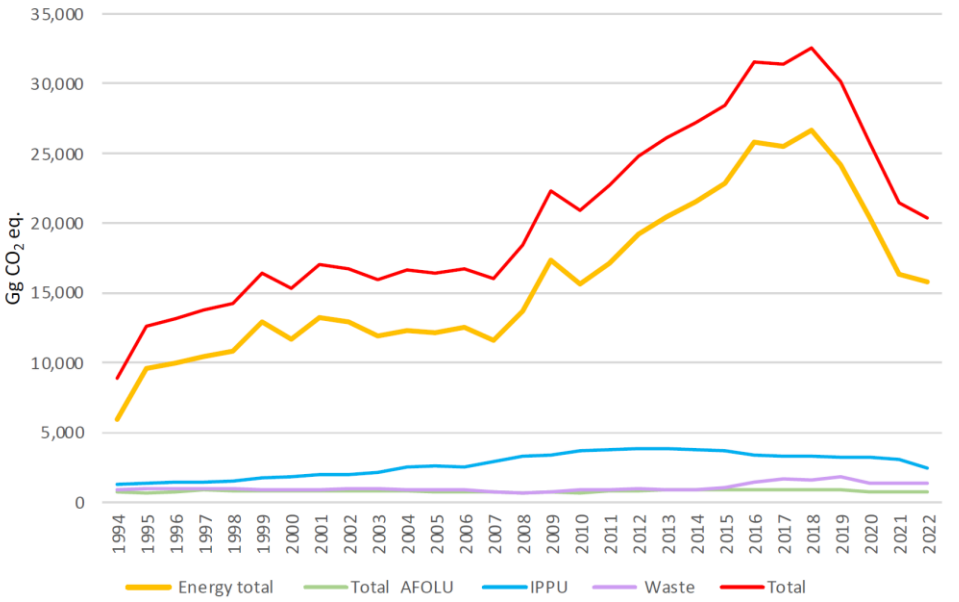
- Ministry of Environment - CHAIR
- Presidency of the Council of Ministers
- Ministry of Agriculture
- Ministry of Economy and Trade
- Ministry of Energy and Water
- Ministry of Finance
- Ministry of Foreign Affairs
- Ministry of Industry
- Ministry of Interior
- Ministry of Public Health
- Ministry of Public Work and Transport
- Ministry of Tourism
- Central Administration of Statistics
- Conseil National de la Recherche Scientifique
- Council for Development and Reconstruction
- Electricity Regulatory Authority
- Libnor
- National Commission for Lebanese Women
- Presidency of the Council of Ministers (PCM)

5. Greenhouse Gas Inventory, 2022

20,519

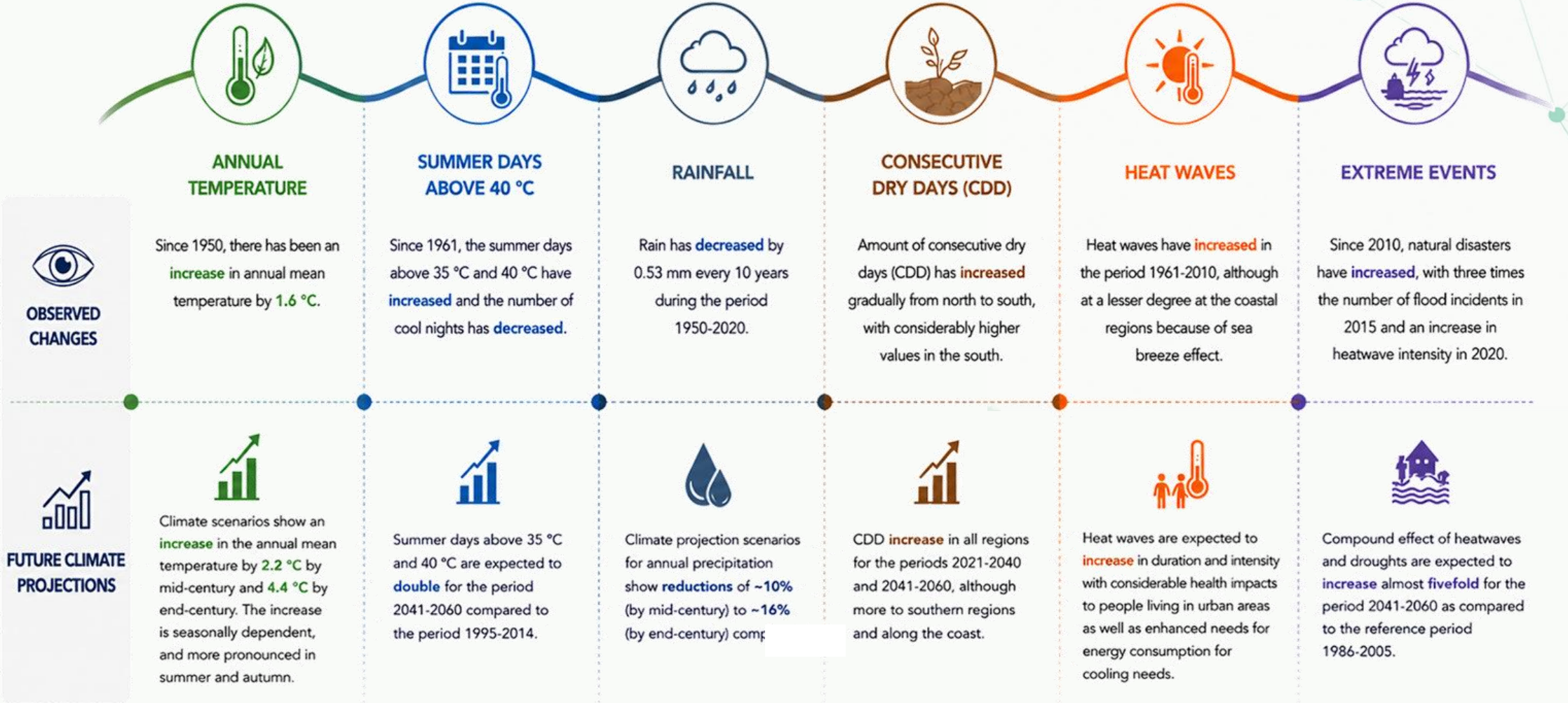
Gg CO_2 eq. total emissions in 2022, before removals





–32% from 2019

6. Climate vulnerability profile



7. Lebanon's NDC 2030

MITIGATION COMMITMENTS

Lebanon aims to reduce its greenhouse gas (GHG) emissions through an economy-wide approach.

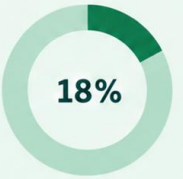
Economy-wide GHG Emission Reduction Targets by 2030

Compared to the Business-As-Usual (BAU) scenario

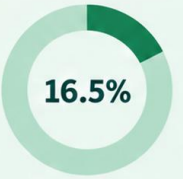


Renewable Energy Targets by 2030

Increase the share of renewable energy in total demand.



of the power demand to be met by renewable energy sources



of the heat demand (in the building sector) to be met by renewable energy sources

Key Mitigation Sectors and Actions

Energy	Transport	Buildings	Waste	Industry	Agriculture & Forestry
Scale up renewable energy and improve energy efficiency	Promote cleaner and more efficient transport systems	Increase energy efficiency and renewable heat	Improve solid waste management and reduce emissions	Enhance resource efficiency and lower emissions	Sustainable land management and forest conservation

ADAPTATION PRIORITIES

Lebanon stresses the urgency for adaptation to build resilience and protect people, communities and ecosystems.

Guiding Principle

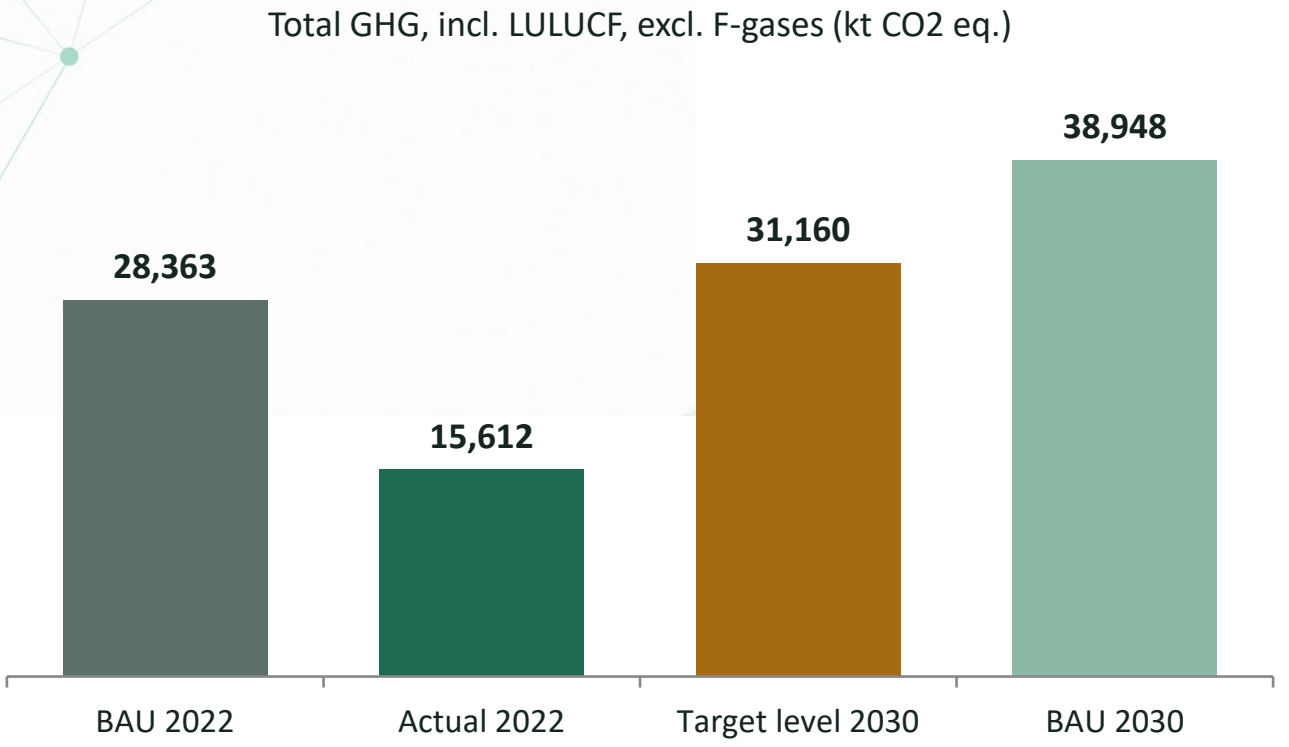
Preserve and restore the natural capital, enhance and protect the built capital, as well as livelihoods, to ensure sustainable growth and resilience to climate change.

Key Adaptation Priorities

1. **Agriculture**
   Strengthen resilience and ensure food security through sustainable management of resources.
2. **Water Resources**
   Develop climate-resilient and sustainable water services, including irrigation.
3. **Forestry**
   Promote sustainable use of natural resources, restore degraded landscapes, and increase Lebanon's forest cover.
4. **Biodiversity**
   Protect and restore terrestrial and marine biodiversity and ecosystems.
5. **Coastal Zones and Cities**
   Reduce the vulnerability of coastal zones and cities to climate change impacts, such as sea level rise and storms.
6. **Health**
   Ensure and protect public health, well-being and safety through resilient health systems.
7. **Disaster Risk Reduction**
   Minimize risks and damages from climate-related natural hazards and extreme weather events.

Base year 2011	BAU level, 2030	Unconditional level, 2030	Scope
19,194 kt CO2 eq.	**38,948 kt CO2 eq.**	**31,159 kt CO2 eq.**	**All sectors incl. LULUCF; excl. F-gases**

8. Progress against the NDC



12% of power demand from renewables, 2022

4% in 2021

Target: 18% by 2030

–38% power demand vs BAU in 2022

Target: -3% in power demand by 2030

Not yet attributed to efficiency measures

The drop is largely crisis-driven, not driven by mitigation policies

9. NDC Implementation Challenges

What constrains mitigation action

Limited public finance and restricted credit: Scarce funding for climate investments, with SMEs, industries and farmers unable to access affordable loans.

Deteriorating infrastructure: Aging electricity grids, unreliable energy supply, and non-operational or underperforming waste and wastewater facilities.

Persistent dependence on fossil fuels: Continued reliance on imported fuel oil and diesel generators, with limited cleaner alternatives.

Delayed sectoral reforms: Regulatory, institutional and implementation gaps slowing renewable energy investments, transport modernization and waste management.

Weak institutional capacities: Staff shortages, fragmented responsibilities and limited resources for implementation, monitoring and enforcement.

High investment risks: Banking sector instability, limited guarantees and restricted access to affordable long-term finance.

Competing national priorities: Economic recovery, humanitarian needs and reconstruction take precedence over longer-term climate investments.

Regional political instability: displacement and additional fiscal pressures further constrain mitigation investments.

10. Policies and Measures

Energy

- Rapid deployment of decentralized solar PV
- Renewable energy and efficiency projects in public facilities
- Electricity sector reforms, grid modernization and renewable energy policies

120,000 Tonnes CO_2 eq. expected by 2030

Forestry

- National Forest Fire Management Strategy
- Afforestation and reforestation programmes

221,000 tonnes CO_2 eq. avoided in 2022

Transport

- Tax and customs incentives for hybrid and electric vehicles
- Limited progress in public transport modernization

Waste

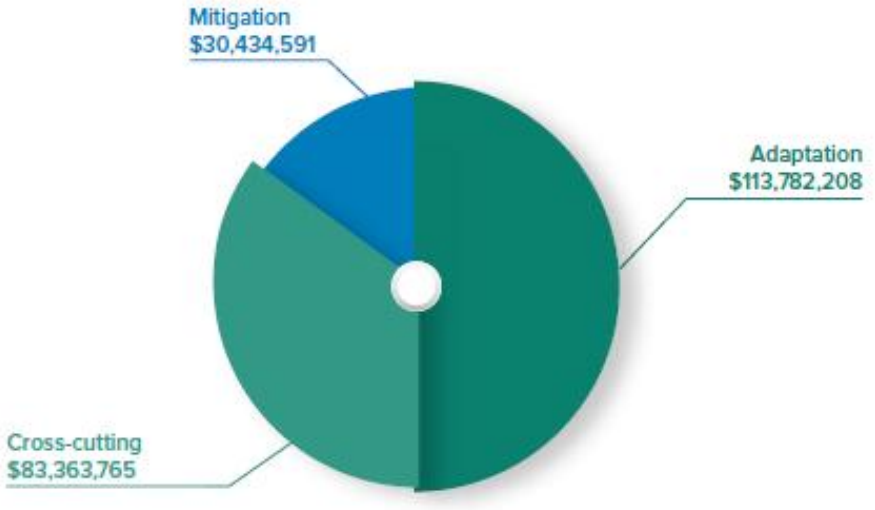
- Solid Waste Management Law 80/2018
- Institutional reforms and waste management planning

Challenges

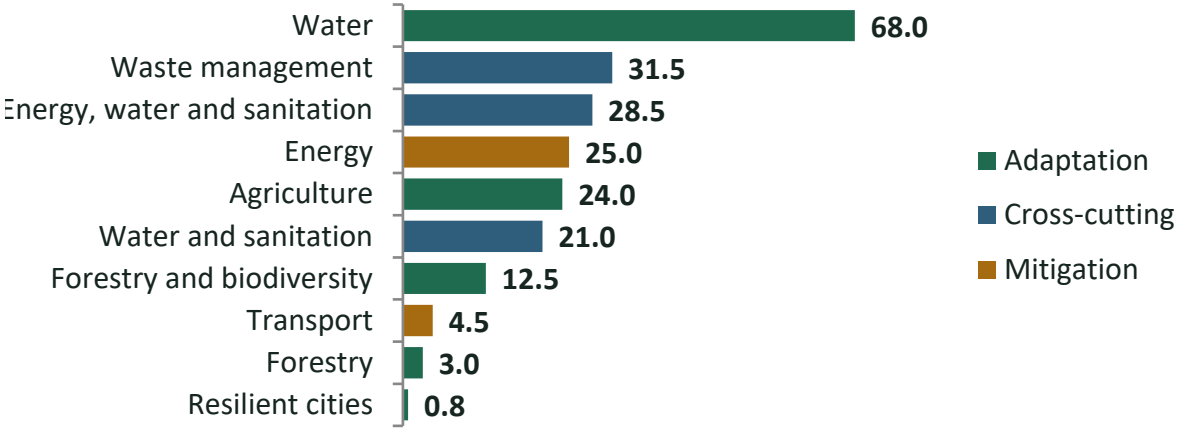
- Difficulty separating policy-driven mitigation from crisis-related emission reductions
- Impacts of most PaMs, and their costs and co-benefits, are not yet quantified
- Insufficient data to assess the impacts of several PaMs
- Need for stronger monitoring, reporting and verification of PaMs

11. Finance received and needed

Support received distribution by measure type



Sectoral allocation of climate funding in Lebanon



Water and waste dominate forestry, transport, resilience lag; energy, agriculture limited to pilot-scale

11. Finance received and needed



Based on the LT-LEDS:

Finance needs:

USD 12.8 billion by 2030

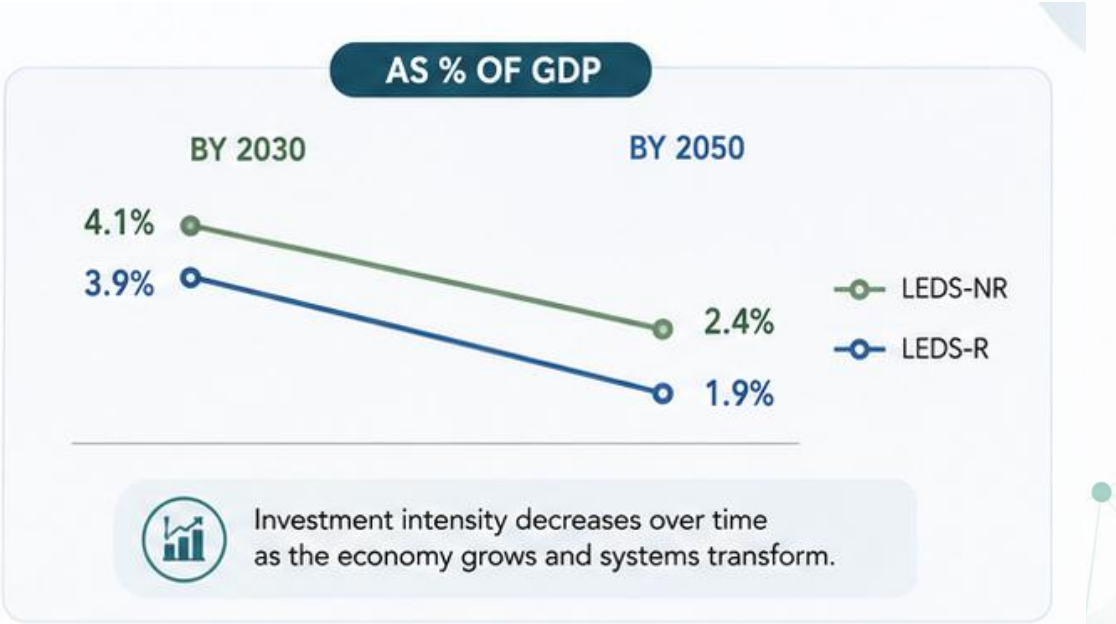
USD 21.4 billion by 2050

Based on the LT-LEDS:

Benefits generated:

USD 97.16 billion in cumulative net benefits by 2050

Benefit-cost ratio of **2.24** in 2030, up to **5.14** by 2050



12. Technology Needs Assessment

Technologies prioritised

- **Energy:** pumped hydro storage, smart grids, heat pumps
- **Transport:** electric freight vehicles, e-bikes and e-scooters
- **Agriculture:** Smart irrigation applications, crop monitoring, evaporative stress mapping
- **Water:** Smart water meters, water-efficient appliances, leak-detection applications

Barriers to deployment

Financial constraints: High upfront investment costs, limited access to affordable financing, and insufficient financial incentives.

Regulatory and policy barriers: Inadequate regulatory frameworks, weak enforcement, and limited policies and incentives supporting technology adoption.

Infrastructure limitations: Aging infrastructure and insufficient supporting systems, including electricity grids, charging networks and digital infrastructure.

Technical capacity gaps: Limited specialized expertise, skilled personnel, and capacity to operate and maintain advanced technologies.

Institutional and coordination challenges: Fragmented responsibilities, weak coordination among stakeholders, and limited implementation capacity.

Information and awareness gaps: Insufficient reliable data, limited research and development, and low awareness of the benefits and applications of emerging technologies

13. Technical Expert Review

Key Findings

- **Reporting milestone:** BTR1, NID, CRTs and CTFs submitted on time.
- **NDC progress:** limitations in assessing NDC progress over 2021–2022.
- **Mitigation impacts:** Renewable electricity progress observed; effects of policies difficult to isolate from the economic crisis.
- **Tracking gaps**: Renewable heat not yet quantified and reduction in demand not attributed to energy-efficiency impacts
- **Inventory improvements:** Data consistency, completeness and QA/QC require strengthening

Capacity-Building Priorities

- **GHG projections:** Develop comprehensive with measures projections.
- **Policy impact assessment**: Quantify the mitigation effects of policies and measures.
- **Inventory systems:** Complete IPCC software data migration and strengthen QA/QC.
- **Sectoral data:** Improve the national energy balance, activity data and country-specific emission factors.
- **NDC monitoring:** Develop measurable indicators and regular tracking of renewable heat and energy efficiency.



Thank you شكراً

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