CLIMATE CHANGE

LOW EMISSION CAPACITY BUILDING PROJECT – LEBANON

UNDP

Empowered lives. Resilient nations.

Lebanon's Intended Nationally Determined Contribution - INDC

European Commission

Supported by:

Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

based on a decision of the German Bundestag

Australian Government

INDC development and stakeholder involvement

- Interministerial committee formed and mandated by respective ministries
- Development of sectoral ”INDC factsheets” by the Ministry of Environment: Existing sectoral strategies and plans as basis. Factsheets shared with interministerial committee and during bilaterals for review
- INDC workshop held in Beirut on July 28, 2015. Outcome: Mitigation and adaptation actions to be included in INDC, chosen by sectoral experts. Agreement on which actions can be implemented only upon receipt of international support
- Sectoral reduction potentials combined to national reduction potentials (bottom-up approach)

Structure of Lebanon's INDC

1. Introduction
2. National Circumstances
3. Adaptation
4. Mitigation
5. Fair and ambitious
6. Means of Implementation

National context

- Lebanon presents its INDC in a situation of development challenges, including, amongst other issues, a lack of security due to regional turmoil and a high level of poverty
- Lebanon's poverty rate is estimated to be 28% with 8% considered extremely poor
- Syrian crisis: 1.13 million registered refugees increasing road transport, energy use, water resources and infrastructure
- The Lebanese Gross Public Debt stood at 134% of GDP by the end of 2014
- **The government of Lebanon recognizes that the more sustainable its development path is, the easier it will be to build resilience to climate change impacts.**

Adaptation

- By 2040, temperatures increase by up to 2°C higher
- At the same time rainfall is projected to decrease by 10-20% by 2040
- The projected changes in rainfall will put tremendous pressure on national water security and produce knock-on effects in sectors such as agriculture, where around 70% of the available water is being used for irrigation

Adaptation

→ Increased climate action through mainstreaming which has already started, increased institutional capacity

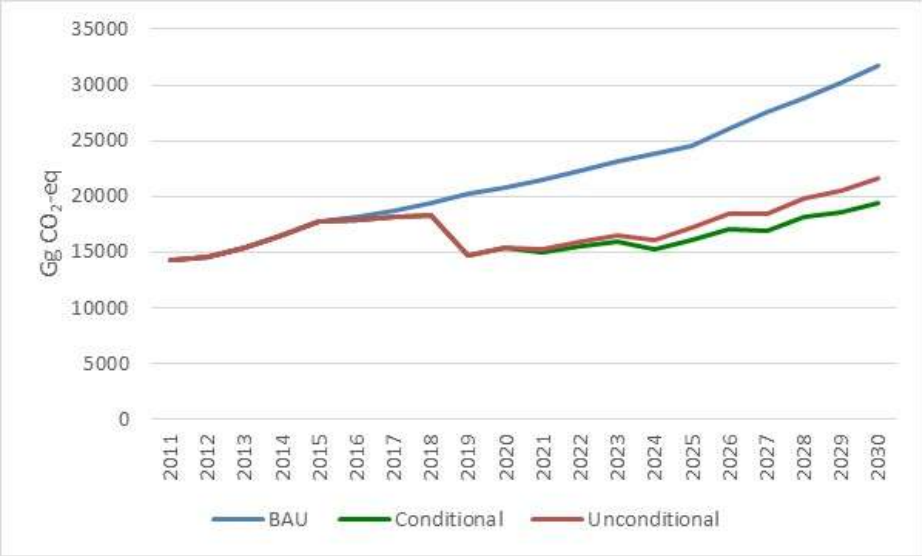
- Summaries of existing sectoral strategies: water, agriculture and forestry, biodiversity
- Aim to reach land degradation neutrality by 2030 in line with UNCCD framework
- Co-benefits/synergies between actions relevant for both mitigation and adaptation highlighted (forestry and wastewater)

Mitigation targets

Unconditional Target	• **A reduction of 15% compared to the Business-As-Usual (BAU) scenario in 2030** • **15% of the power and heat demand in 2030 is generated by renewable energy sources** • **A 3% reduction in power demand through energy-efficiency measures in 2030 compared to the demand under the Business-As-Usual scenario**
Conditional Target	• A reduction of 30% compared to the BAU scenario in 2030 • 20% of the power and heat demand in 2030 is covered by renewable energy sources • A 10% reduction in 2030 in power demand through energy-efficiency measures compared to the demand under the BAU scenario

Energy

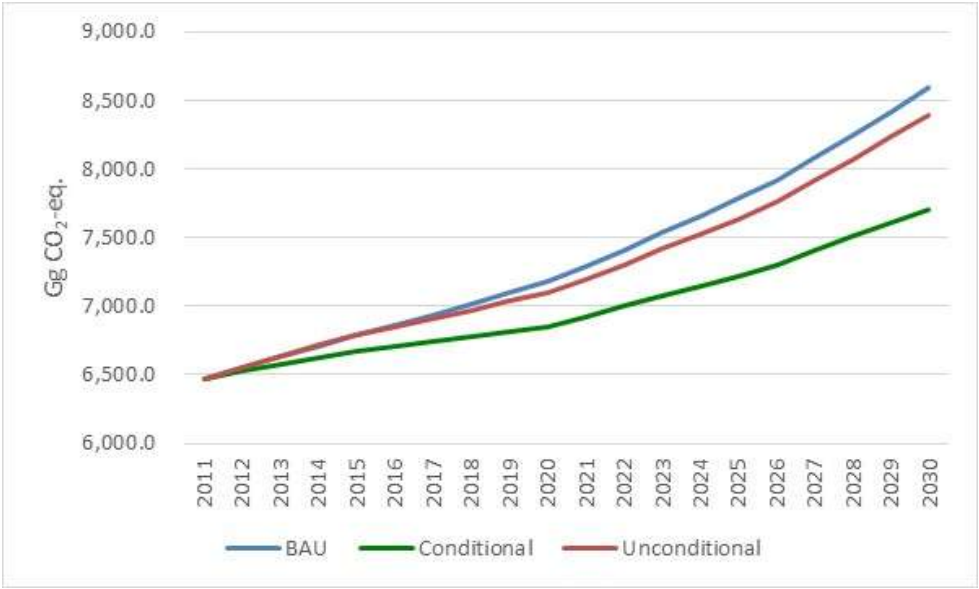
- Refurbishment, replacement and extension of conventional power generation capacities and fuel switch to natural gas as laid down in the 2010 Policy Paper for the Electricity Sector.
- Energy efficiency measures reducing energy demand in line with the National Energy Efficiency Action Plan 2016-2020 (NEEAP)
  - Unconditional: 3% energy savings compared to BAU in 2030
  - Conditional: 10% energy savings compared to BAU in 2030



- Use of renewable energy (RE) sources in line with the Renewable Energy Action Plan 2016-2020 (REAP)
  - 12% of power and heat demand supplied through renewable energy sources in 2020 (NEEAP)
  - Unconditional: 15% supplied through RE in 2030 under the unconditional scenario
  - Conditional: 20% supplied through RE in 2030 under the conditional scenario

Transport

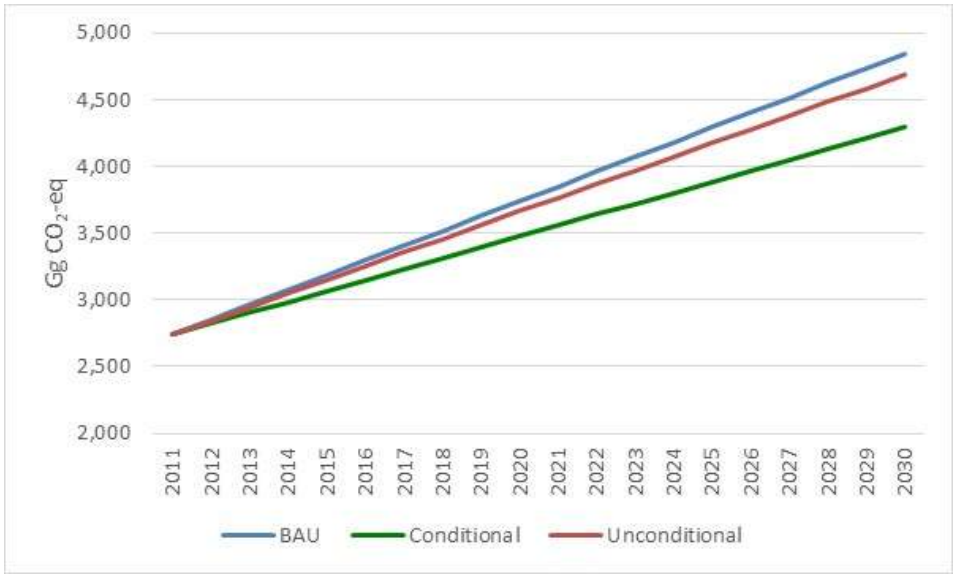
- Unconditional:
  - Share of person-kilometres driven annually using public transport remains at 36% by 2030. Actions include improving the bus system in the Greater Beirut Area



- Conditional:
  - Share of person-kilometres driven annually using public transport increases to 48% by 2030. Achieved through infrastructure projects, including improving the bus system in the Greater Beirut Area, introduction of a bus rapid transit system and revitalization of the railway system
  - A share of 20% fuel efficient vehicles is to be achieved by 2030: incentivizing activities, e.g. scrappage programmes (Nationally Appropriate Mitigation Action – NAMA under preparation)

Waste

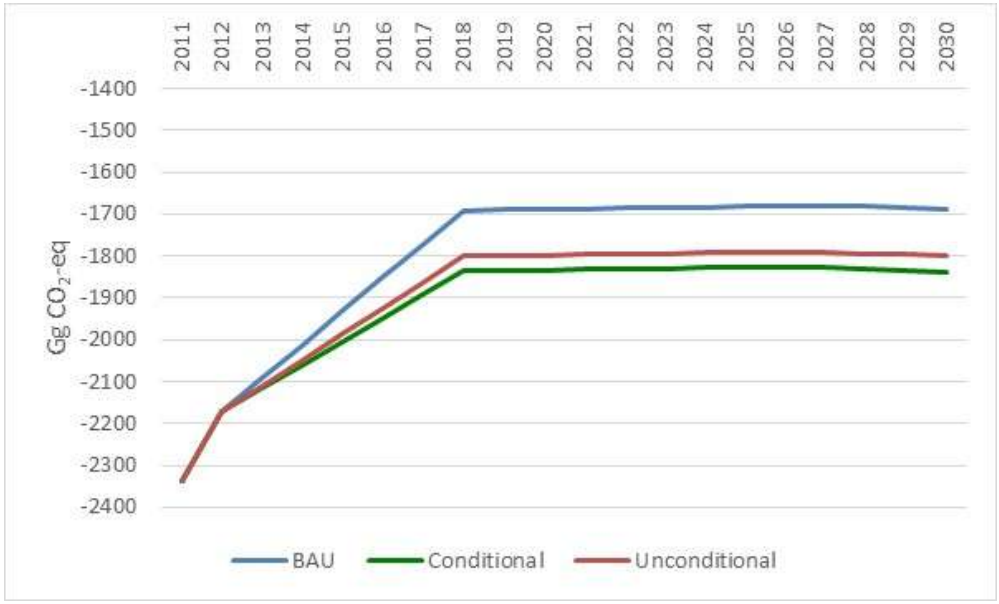
- Both scenarios: A waste to energy plant with a capacity of 1000 t/day is operational by 2030 (NAMA under preparation)
- Unconditional:
  - A recycling rate of 25% is achieved by 2030
  - 51% of municipal wastewater is treated by 2030



- Conditional:
  - A recycling rate of 30% is achieved by 2030
  - 70% of municipal wastewater is treated by 2030
  - The share of wastewater treatment could be higher if everything goes according to plan

Agriculture and Forestry

- 40 million trees programme
  - Unconditional: 50% of the trees can be planted by 2030
  - Conditional: 65% of the trees can be planted by 2030
- Forest Management Plan
- Forest Fire Fighting Strategy



Implementation period	2020 - 2030
Sectors	Energy, industrial processes, waste, agriculture, LULUCF
GHGs covered	CO_2, CH_4, N_2O
Methodology	Revised 1996 IPCC Guidelines GPG and Uncertainty Management GPG for LULUCF BAU and mitigation scenarios developed using the LEAP software

Fairness and ambition

- **Aim to embark on low-emission and climate resilient development trajectory**
- First **economy-wide climate change contribution**
- **Transformtional change** through restructuring of sectors

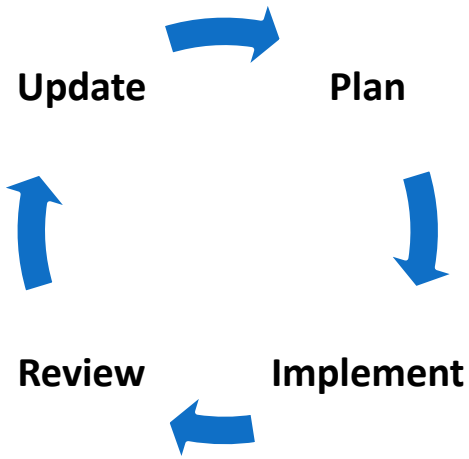
The contribution put forward has to be considered against the background of Lebanon's difficult national circumstances and its regional context, as well as its low share in global emissions (0.07%)

Means of implementation

- Considering **coordination unit** within Ministry of Environment
- Responsibility for **implementation remains with line Ministries/relevant institutions**
- System for tracking of INDC implementation and impacts can be **integrated into existing structures for UNFCCC reporting**
- Support is required for mitigation measures under the conditional scenario and for adaptation measures

Next steps: INDC update

- INDC implementation planning (e.g., MRV through indicators)
- Implementation of mitigation and adaptation actions
- Regular updating of the INDC (~5 years)



Conclusion

- INDC is an opportunity both in its preparation and implementation
- Effectively reduce GHG emissions and increase adaptive capacity
- Enhancing institutional arrangements and institutional capacity
- Streamlining governmental planning and abiding by the nation's Sustainable Development Strategy

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ThankYou

The Climate Change Team

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