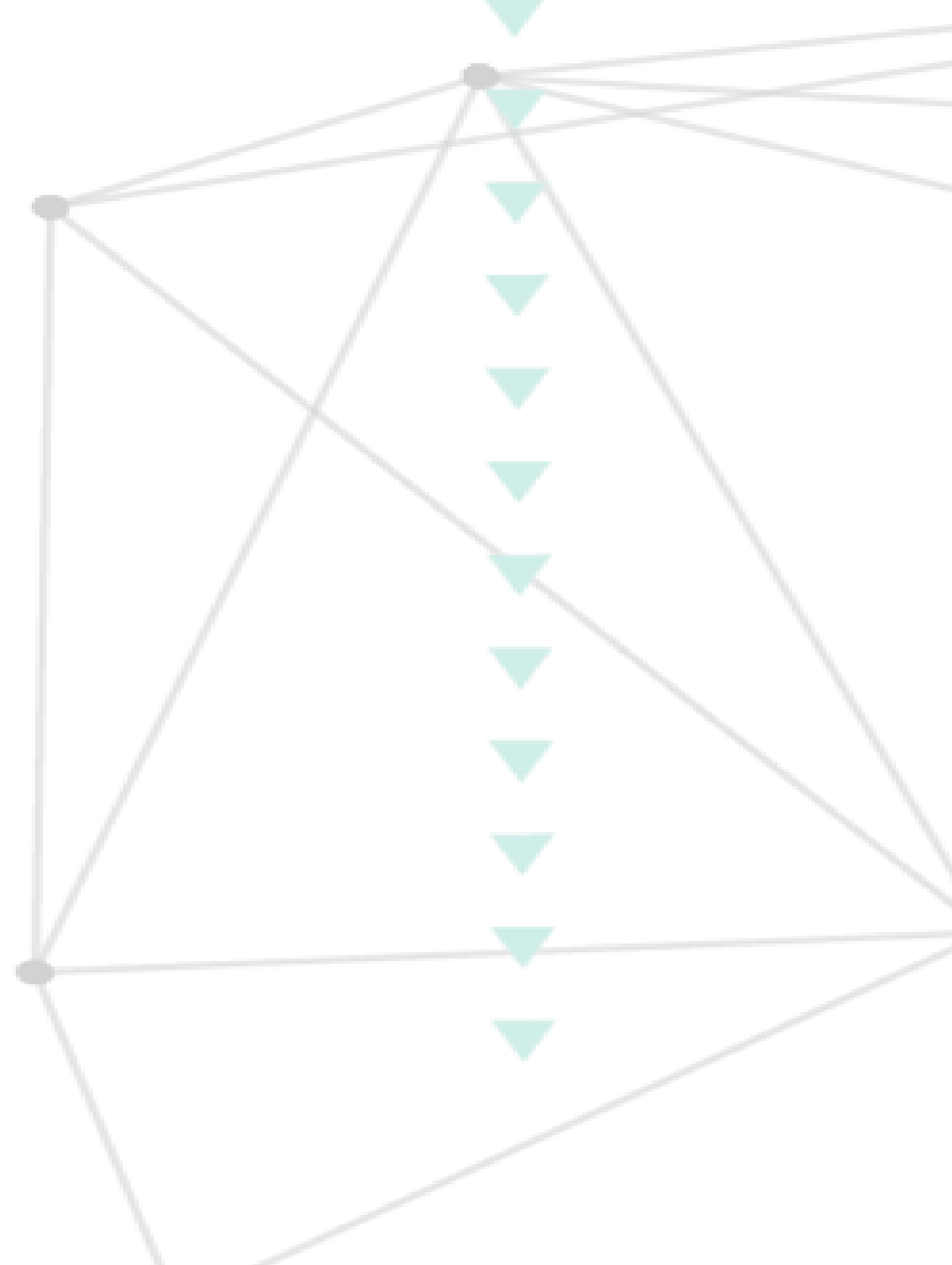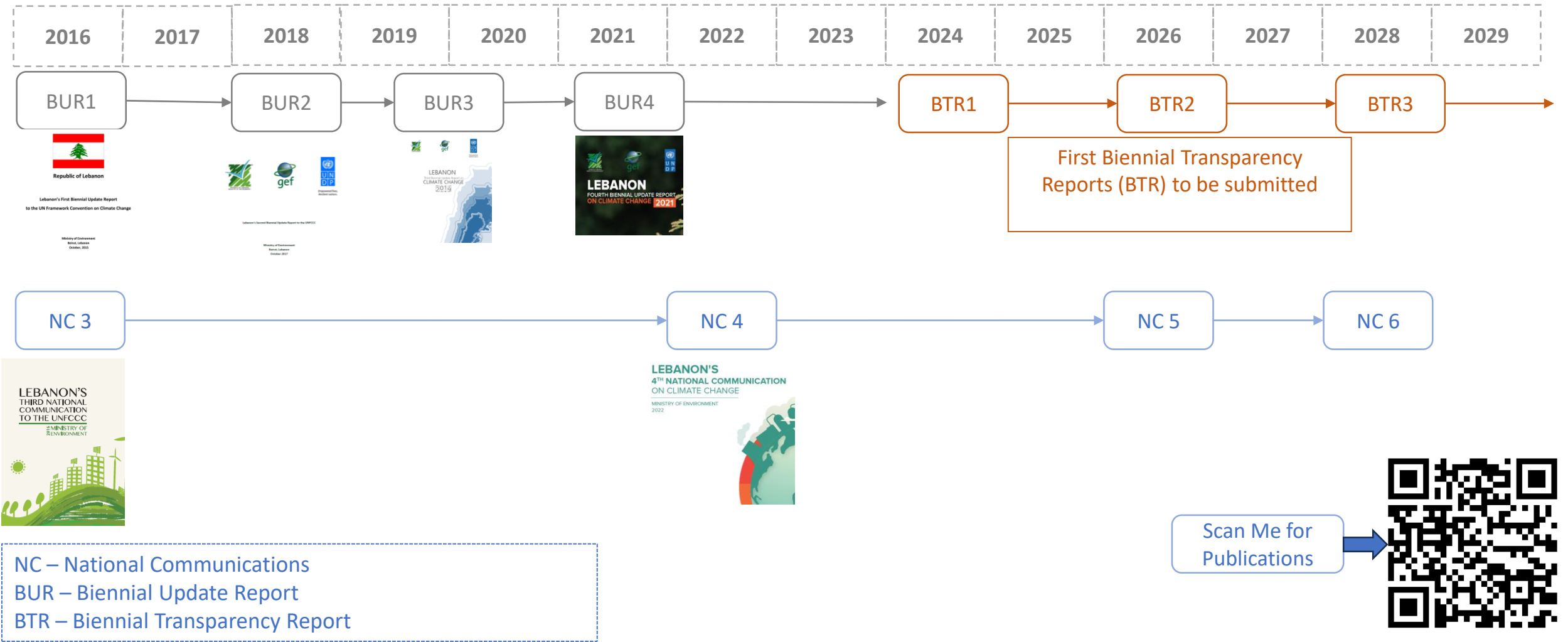# Lebanon's MRV Experience

May 28th, 2025

Project Coordinator: Leya Zgheib

Past and Upcoming UNFCCC reporting requirements

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029

BUR1 → BUR2 → BUR3 → BUR4 → BTR1 → BTR2 → BTR3 →

First Biennial Transparency Reports (BTR) to be submitted

NC 3 → NC 4 → NC 5 → NC 6

NC – National Communications
BUR – Biennial Update Report
BTR – Biennial Transparency Report

Scan Me for Publications

Lebanon's MRV Platform Journey: Building a Fit-for-Purpose System

Lebanon has developed a climate transparency system aligned with its national context and international commitments under the Paris Agreement.

This "Transparency Journey" focused on building institutional structures and technical tools that can operate effectively despite limited resources and national crises.
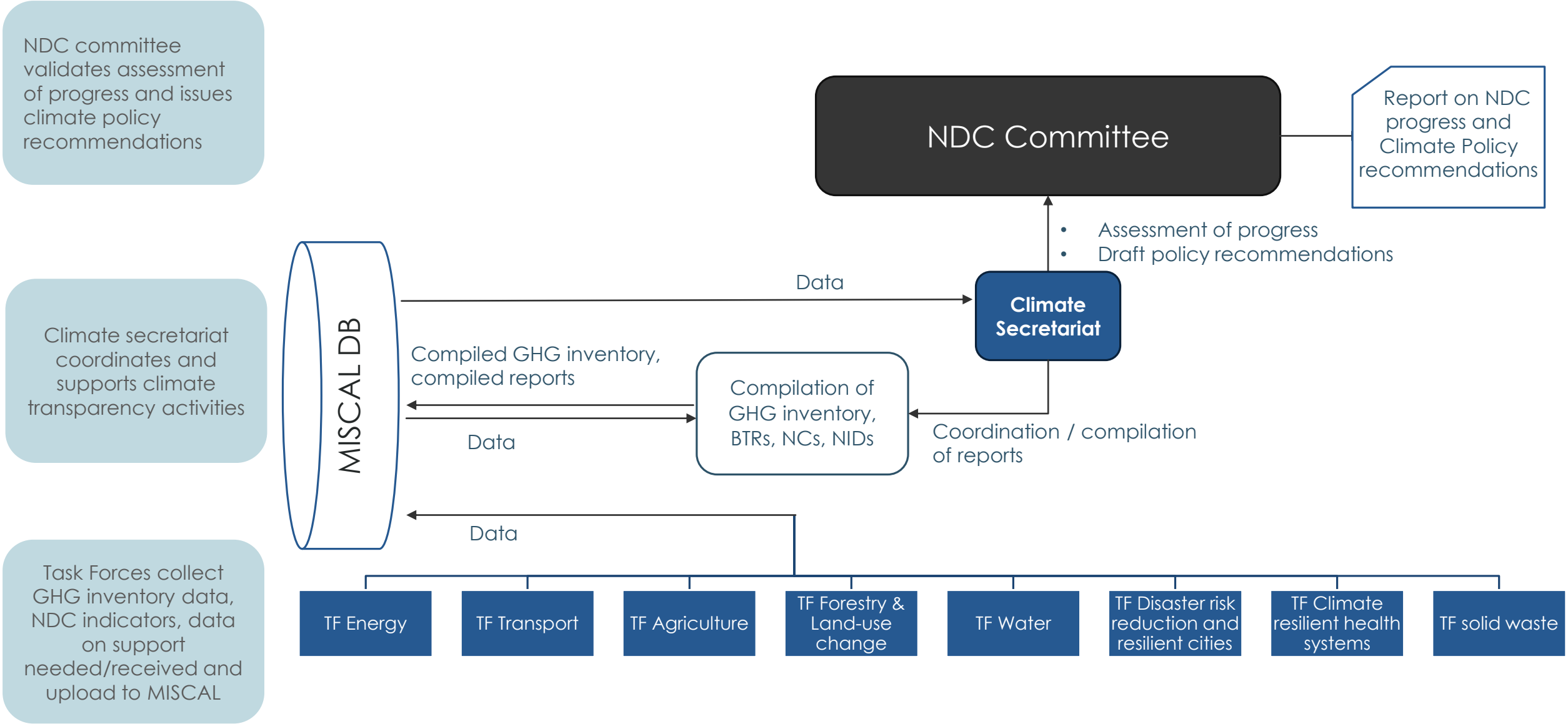
- Establishing institutional arrangements for coordinated data management.
- Mapping the data collection ecosystem and stakeholder roles.
- Developing indicators to track progress on mitigation, adaptation, and support.
- Launching a digital platform tailored to national capacity.
- Reaching the current phase: platform operationalization.
- This system supports Lebanon's efforts to meet transparency requirements and enables evidence-based policy decisions.
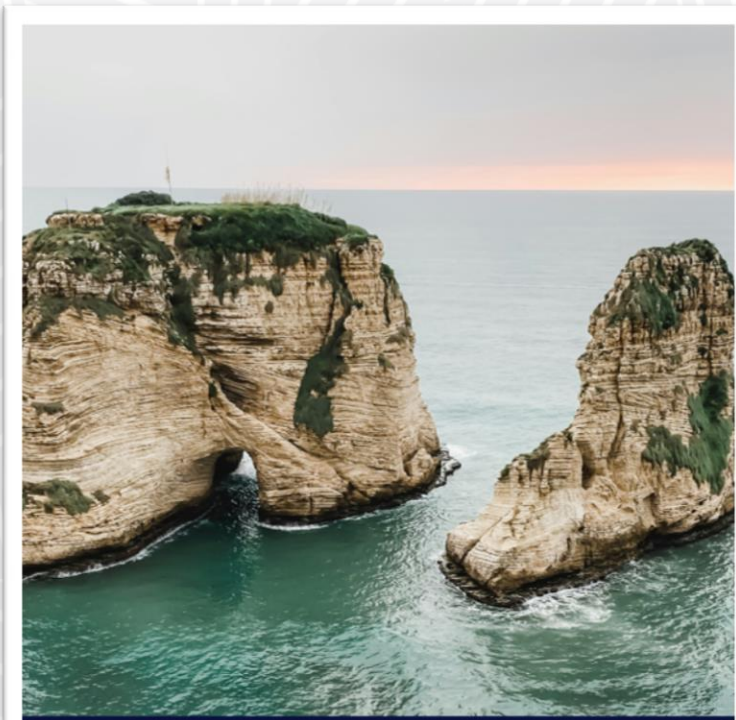
**Climate Change Transparency Strategy
Republic of Lebanon**

UNDP

Data Flow Mapping &Suggested Structure and Approach for Lebanon's Climate Transparency Framework

NDC committee validates assessment of progress and issues climate policy recommendations

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

Report on NDC progress and Climate Policy recommendations

- Assessment of progress
- Draft policy recommendations

Climate Secretariat

MISCAL DB

Data

Compiled GHG inventory, compiled reports

Data

Compilation of GHG inventory, BTRs, NCs, NIDs

Coordination / compilation of reports

Data

TF Energy

TF Transport

TF Agriculture

TF Forestry & Land-use change

TF Water

TF Disaster risk reduction and resilient cities

TF Climate resilient health systems

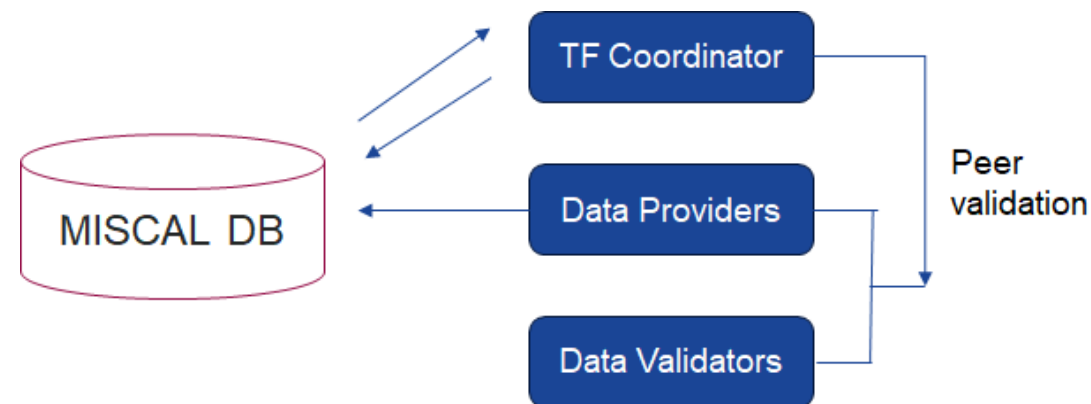TF solid waste

Institutional Arrangements

Overall Responsibility

➥ Compile and generate consistent and validated **data** related to the *GHG inventory* across a time series

➥ Compile and generate consistent and validated **indicators** related to the *NDC*

→ This supports policy-decision making and reporting beyond climate-related issues (e.g., related to sectoral strategies and programmes)
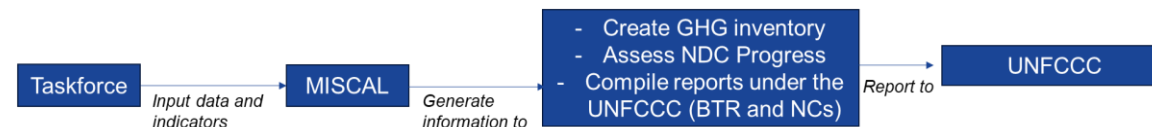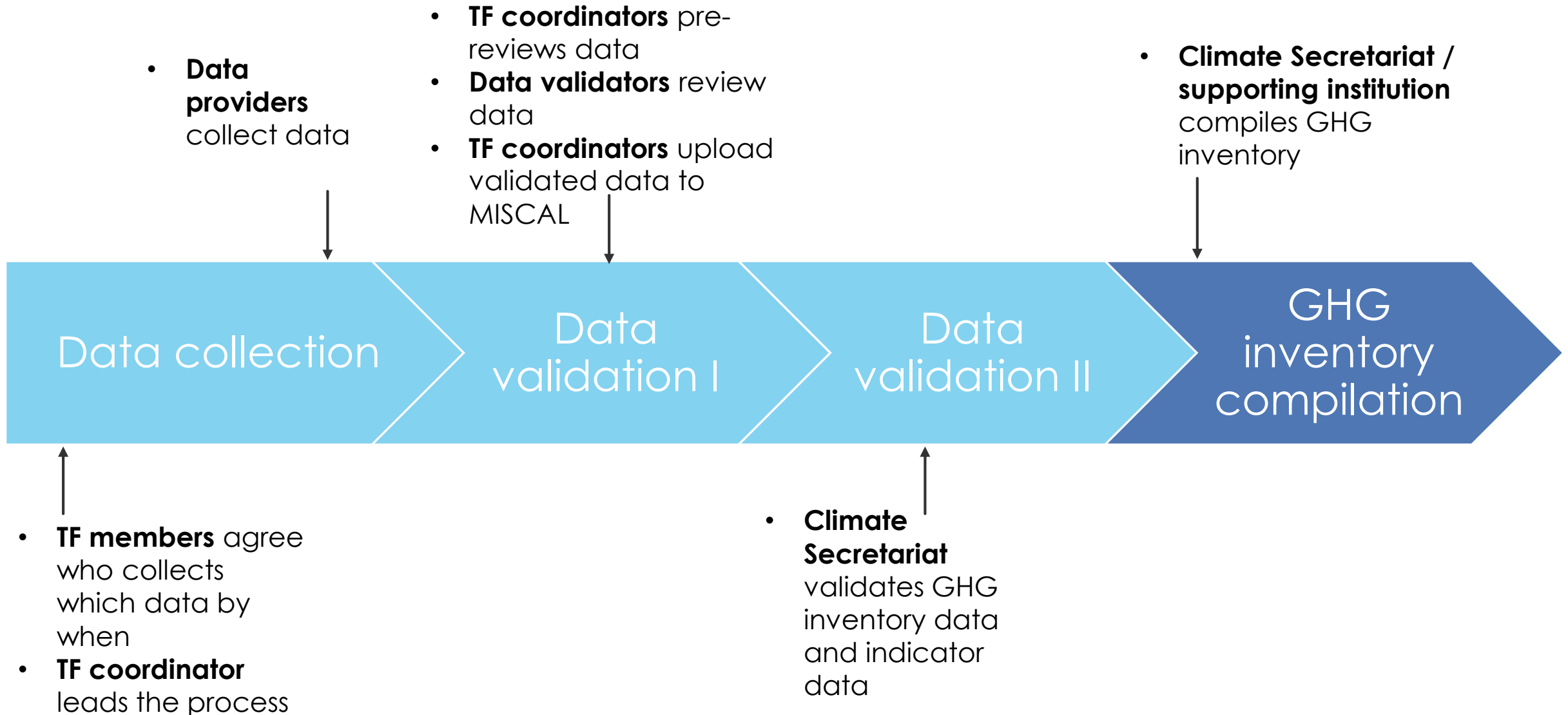
Specific Roles

• **TF Coordinator** - Ensure alignment and information exchange among TF members; coordination across the TF's scope, thus benefitting implementation, e.g. of sectoral NDC strategies

• **Data provider –** Collect data/indicators within a specific timeframe and in line with agreed methodologies. Work with other TF members if needed.

• **Data validator** – Review data/indicators for accuracy, completeness, and consistency

Task Force roles in the data collection/validation process

- **Data providers** collect data

- **TF coordinators** pre-reviews data
- **Data validators** review data
- **TF coordinators** upload validated data to MISCAL

- **Climate Secretariat / supporting institution** compiles GHG inventory

| Data collection | Data validation I | Data validation II | GHG inventory compilation |

- **TF members** agree who collects which data by when
- **TF coordinator** leads the process

- **Climate Secretariat** validates GHG inventory data and indicator data

Indicator Development

More than 160 indicators (166) were designed, covering: GHG emissions and NDC progress (mitigation and adaptation)

Table 3. National GHG indicators

Indicator #	Indicator	Unit	Priority	Reporting
National Indicators				
N.1	Difference in emissions from BAU in year X	Gg CO_2eq and %	1	External for UNFCCC Reporting
N.2	GHG emission trend since [2015] in year X – total emissions	Gg CO_2eq and %	1	External for UNFCCC Reporting
N.3	GHG emission trend since [2015] in year X – net emissions	Gg CO_2eq and %	1	External for UNFCCC Reporting

3.3.2 Energy Priority Indicators

Table 4. Energy priority indicators

Indicator #	Indicator	Unit	Priority	Reporting
Headline Indicators				
E.H1	Difference in emissions from energy generation compared to BAU	Gg CO_2eq and %	1	External for UNFCCC Reporting
E.H2	GHG emissions trend from energy generation since [2015]	Gg CO_2eq and %	1	External for UNFCCC Reporting
E.H3	Total emissions energy generation in year X	Gg CO_2eq	1	External for UNFCCC Reporting
E.H4	Share of renewables in generation in year X	%	1	External for UNFCCC Reporting
E.H5	Difference in emissions in 1.A.1 energy industries compared to BAU	Gg CO_2eq	1	External for UNFCCC Reporting
E.H6	Emissions trend in power demand since [2015]	Gg CO_2eq	1	External for UNFCCC Reporting
E.H7	Difference in emissions from 1.A.2 Manufacturing Industries and Construction compared to BAU	Gg CO_2eq and %	1	External for UNFCCC Reporting
E.H8	GHG emissions trend in 1.A.2 Manufacturing Industries and Construction since [2015]	t CO_2eq and %	1	External for UNFCCC Reporting
E.H9	Total emissions 1.A.2 Manufacturing Industries and Construction in year X	Gg CO_2eq	1	External for UNFCCC Reporting
E.H10	Difference in emissions from 1.A.4 Other Sectors compared to BAU	t CO_2e	1	External for UNFCCC Reporting
E.H11	GHG emissions trend in 1.A.4 Other Sectors since [2015]	t CO_2e	1	External for UNFCCC Reporting
E.H12	Total emissions 1.A.4 Other Sectors in year X	Gg CO_2e	1	External for UNFCCC Reporting

3.3.3 Transport Priority Indicators

Table 5. Transport priority indicators

Indicator #	Indicator	Unit	Priority	Reporting
Headline Indicators				
T.H1	Difference in emissions from 1.A.3 Transport compared to BAU	t CO_2eq and %	1	External for UNFCCC Reporting
T.H2	GHG emissions trend in 1.A.3 Transport since [2015]	t CO_2eq and %	1	External for UNFCCC Reporting
T.H3	Total emissions transport sector in year X	Gg CO_2e	1	External for UNFCCC Reporting

3.3.4 Agriculture Priority Indicators

Table 6. Agriculture priority indicators

Indicator #	Indicator	Unit	Priority	Reporting
Headline Indicators				
Ag.H1	Difference in agriculture sector emissions compared to BAU	t CO_2eq and %	1	External for UNFCCC Reporting
Ag.H2	GHG emissions trend in agriculture sector since [2015]	t CO_2eq and %	1	External for UNFCCC Reporting
Ag.AP1.H1	Agricultural production by key crop type	Tonnes	1	Internal for NDC tracking
Ag.AP1.H2	Increase of agricultural productivity of key crop types	%	2	Internal for NDC tracking
Ag.AP1.H3	Percentage of agricultural land using climate-smart practices	%	1	External for UNFCCC Reporting
Ag.AP3.H1.	% increase in total irrigated area under modern irrigation system	%	1	External for UNFCCC Reporting

Table 7. FOLU priority indicators

Indicator #	Indicator	Unit	Priority	Reporting
Headline Indicators				
F.H1	Difference in net land use emissions compared to BAU	t CO_2eq and %	1	External for UNFCCC Reporting
F.H2	GHG emissions trend in net land use since [2015]	t CO_2eq and %	1	External for UNFCCC Reporting
F.AP2.H1	Lebanon's forest cover in Year X	Hectares (ha) and %	1	External for UNFCCC Reporting
F.AP2.H2	Number of management plans for forest systems	#	2	Internal for NDC tracking
F.AP2.H3	Hectares of burned lands	Ha	1	External for UNFCCC Reporting

3.3.6 Waste Priority Indicators

Table 8. Waste priority indicators

Indicator #	Indicator	Unit	Priority	Reporting
Headline Indicators				
W.H1	Difference in emissions from waste sector compared to BAU data	t CO_2eq and %	1	External for UNFCCC Reporting
W.H2	GHG emissions trend in waste sector since [2015]	t CO_2eq and %	1	External for UNFCCC Reporting

3.3.7 Water Priority Indicators

Table 9. Water priority indicators

Indicator #	Indicator	Unit	Priority	Reporting
Headline Indicators				
Wt.H1	Difference in emissions from wastewater sector compared to BAU data	t CO_2eq and %	1	External for UNFCCC Reporting
Wt.H2	GHG emissions trend in wastewater sector since [2015]	t CO_2eq and %	1	External for UNFCCC Reporting
Wt.AP3.H1	Share of population with access to safely managed drinking water	%	1	External for UNFCCC Reporting

Management Information System for Climate Action for Lebanon MISCAL

Management Information System for Climate Action in Lebanon (MISCAL) platform

Source: Lebanon's First Biennial Transparency Report (BTR1)

CLIMATE CHANGE TRAINING: THE TRANSPARENCY SERIES

AGENDA — 15 May to 10 July 2024

with support from RICARDO

87 people trained
50% women

15 May · 1pm · Setting the scene

Learning outcomes
What is climate transparency and why is it relevant to you
An understanding of Lebanon's climate transparency framework and your role within it
The benefits of participation and why it matters

WEBINAR

05 Jun · 1pm · Tracking your targets – mitigation

Learning outcomes
Explore what are GHG emission inventories and NDC indicators
Gain practical tips for GHG emission inventory preparation
Understand how you can support tracking Lebanon's NDC progress
Recognise what makes quality data

WEBINAR

06 Jun · 1pm · Tracking your targets – adaptation

Learning outcomes
Recognise the climate change impacts happening in Lebanon now
Understand what Lebanon's adaptation priorities are
How can we track progress on adaptation using indicators
Recognise what makes quality data

WEBINAR

24-25 Jun · Task Forces – understanding data requirements

Learning outcomes
Tailored sectoral sessions per Task Force (energy and industry, transport, agriculture, waste, water, forestry and biodiversity, cities and disaster risk)
Data collection strategies – why we need the data and where to find it
Ensuring accuracy through data validation

WEBINARS

10 Jul · full day · Task Forces – understanding your role

Learning outcomes
Cultivating a shared sense of responsibility across Task Forces
Forging connections with fellow Task Force members
The importance of teamwork and support
Agreeing roles and responsibilities

IN PERSON WORKSHOP

Challenges Encountered and Lessons Learned

Despite significant progress, Lebanon's MRV system still faces challenges that affect its sustainability and performance:

o **Web-hosting and system maintenance:** *Risk of technical disruptions.*

o **Data availability and accessibility:** *Incomplete or inconsistent data across sectors.*

o **High staff turnover:** *Affects institutional memory and continuity.*

o **Lack of formal mandates:** *Data-sharing often relies on informal cooperation.*

o **Limited technical capacity:** *Staff across ministries need deeper training in reporting protocols.*

Moving Forward: Planned Actions to Strengthen MRV

To address current limitations and sustain the system, Lebanon is planning a series of forward-looking activities:

- *Institutionalization: Legally mandate the Task Forces and formalize inter-ministerial reporting roles.*

- *Platform upgrade: Add tools for visualization, analysis, loss & damage and support tracking.*

- *Data expansion: Generate missing indicators through targeted studies and research.*

- *Capacity building: Deliver advanced technical training for MRV and ETF compliance, including gender-balanced participation.*

- *System sustainability: Secure long-term hosting and technical support arrangements.*

Enhance formulation of NDC targets to facilitate reporting:

Old Target: *Strengthen the agricultural sector's resilience to enhance Lebanon's agricultural output in a climate-smart manner* **(Example)**

- **How to measure the "strengthened" impact?**
- **What are the priority agricultural outputs ?**
- **What is a climate smart manner?**

Thank you!

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https://climatechange.moe.gov.lb/publications