

# FACILITATIVE SHARING OF VIEWS

## LEBANON

December 7, 2018

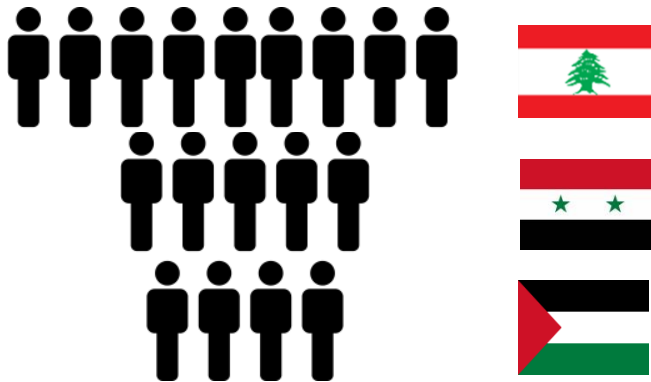


## Part I: Summary of BUR and recent development

# 1. National context

Population in 2013

Around 6.2 million



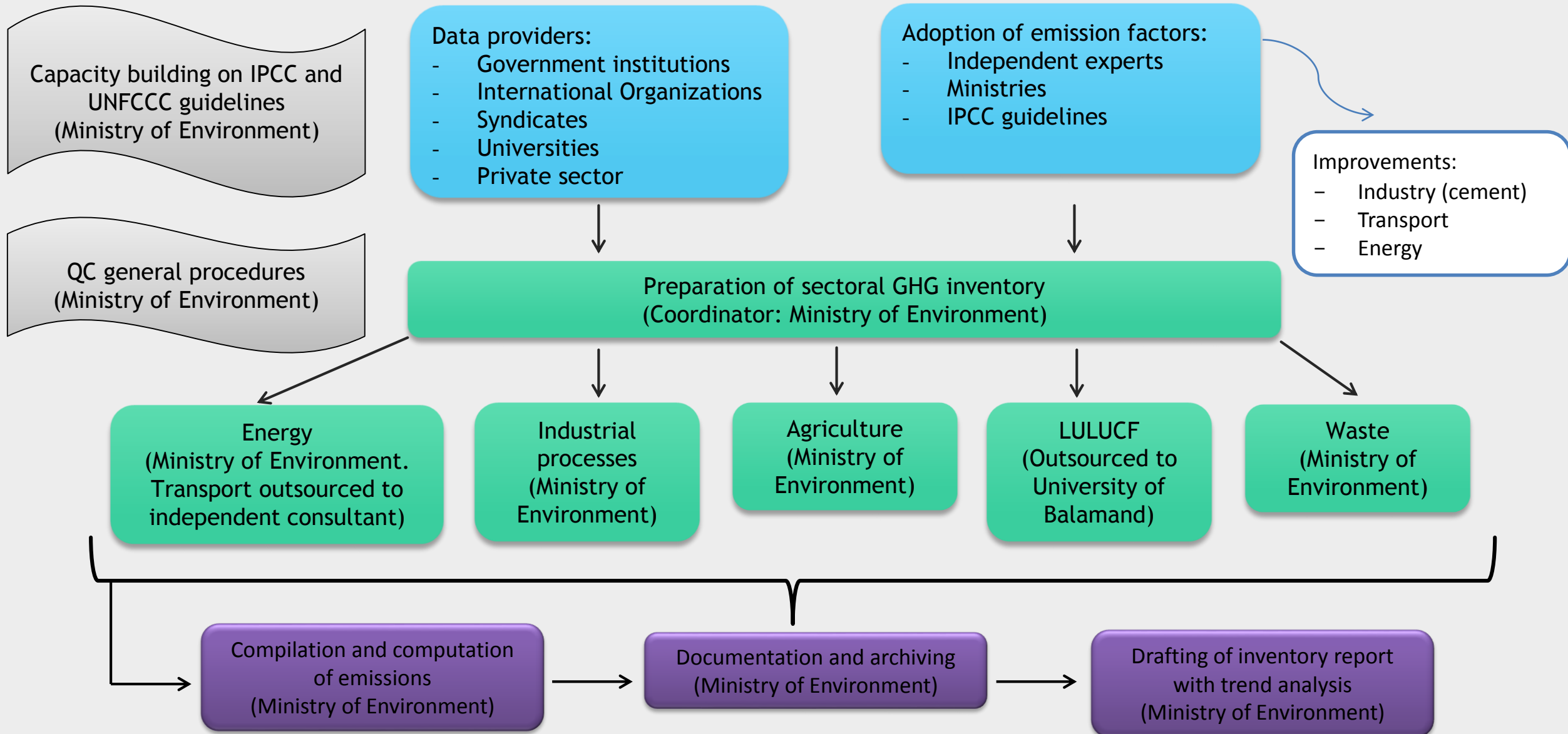
2006-2010 > 7.7%

2011-2015 > 1.9%

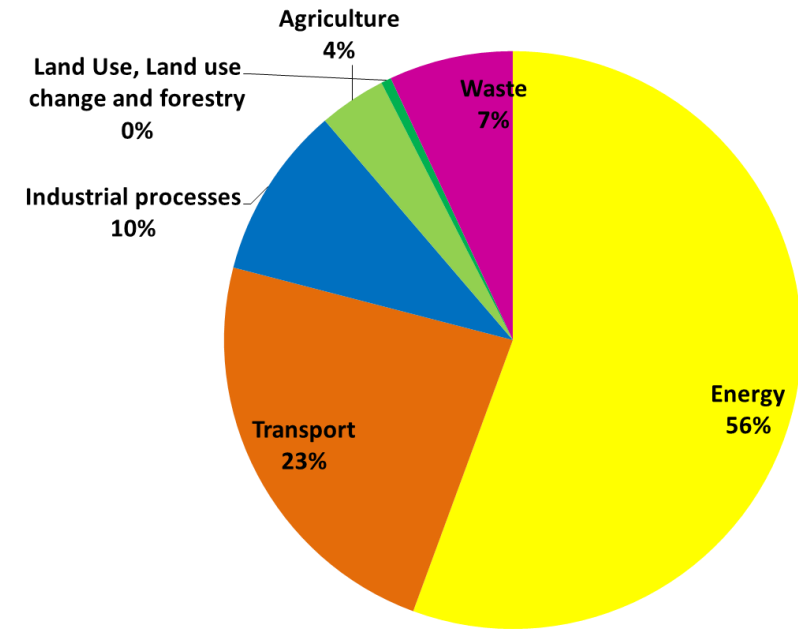


**GROSS DOMESTIC  
PRODUCT**

# National GHG Inventory System



## 2.GHG inventory (using 1996 IPCC GL and GPG)

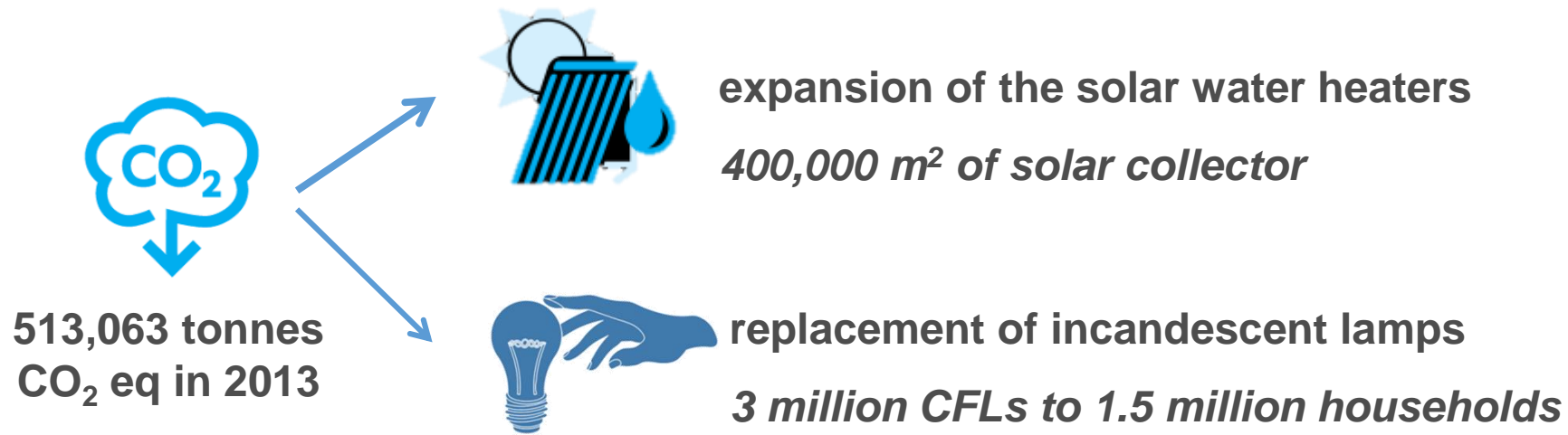


Total emissions in 2013 :  
**26,285 Gg CO<sub>2</sub>eq.**

# Key category analysis 2013

Sector	Source categories	GHG	Emission estimate (Gg CO <sub>2</sub> eq.)	Level assessment (%)	Cumulative total (%)
Energy	CO <sub>2</sub> mobile combustion: energy industries	CO <sub>2</sub>	7,367.39	28.05%	28.05%
Energy	CO <sub>2</sub> mobile combustion: road vehicles	CO <sub>2</sub>	5,977.51	22.76%	50.80%
Energy	CO <sub>2</sub> emissions from manufacturing industries and construction	CO <sub>2</sub>	4,403.84	16.76%	67.57%
Industrial processes	CO <sub>2</sub> emissions from cement production	CO <sub>2</sub>	2,539.54	9.67%	77.23%
Energy	Other sectors: commercial CO <sub>2</sub>	CO <sub>2</sub>	2,234.11	8.50%	85.74%
Waste	CH <sub>4</sub> emissions from solid waste disposal sites	CH <sub>4</sub>	1,279.14	4.87%	90.61%
Energy	Other sectors: residential CO <sub>2</sub>	CO <sub>2</sub>	546.20	2.08%	92.69%
Agriculture	N <sub>2</sub> O (direct and indirect) emissions from agricultural soils	N <sub>2</sub> O	511.50	1.95%	94.63%

### 3. Mitigation actions and effects – Power sector



Decentralized  
PV

Solar-Powered  
Water Pumping

Solar-Powered  
Street Lighting

Energy-Efficient  
Street Lighting

Solar Water  
Heating

Certified Green  
Buildings

Energy  
Conservation  
Measures

Biomass Space  
Heating

Other  
Renewables

Other Energy  
Efficiency

Energy  
efficiency in  
power plants

Estimated yearly reduction  
1,312,996 tonnes of CO<sub>2</sub>

# Mitigation actions and effects – Transport sector

## Master plan to revitalize the land public transport: shifting the passenger transport demand to mass transit systems



**Short**

Implementation of phase 1 of rail transportation plan, connecting port of Tripoli to the Syrian border.  
Revitalization and restructuring of the operation of public buses inside cities.  
Continuing the development project of traffic management in GBA.  
Improvement of the pedestrian infrastructure.



**Long**

Deployment of a Bus Rapid Transit (BRT) on Beirut north and south gates, commuting Jounieh to Jiyeh.  
Development of a mass transit system covering territories all over Lebanon and commuting cities.  
Restructuring the freight transport.



# Mitigation actions and effects – Forestry sector

Protecting existing carbon reservoirs from losses associated with deforestation, forest and land degradation, urbanization, and other land management practices.

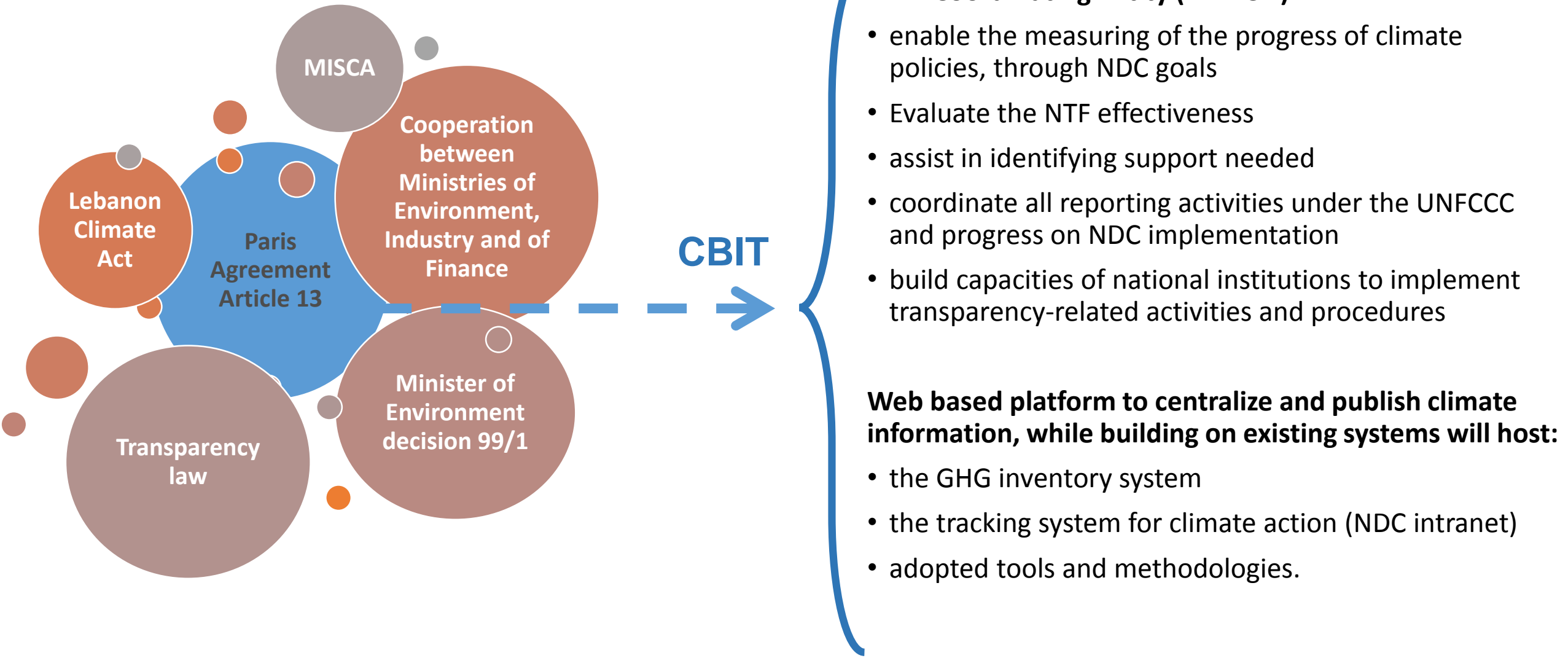
Enhancing carbon sequestration and expanding carbon stores in forests, other biomass, soils, and wood products

Reducing emissions primarily CH<sub>4</sub> and N<sub>2</sub>O, from land use interventions on fire management



**18.996 Gg CO<sub>2</sub>eq. removed in 2013**

# Transparency framework, institutional arrangements and MRV system



# Obstacles and barriers

## BUR preparation

- Human resources
- Funding cycles
- Institutional arrangements
- National ownership

## Inventory preparation

- IPCC Guidelines
- Underdeveloped institutional arrangements for data monitoring and collection
- Unavailability of specific data and/or the inaccessibility of existing data for adopting tier 2

## Reporting mitigation actions

- Limited data available on progress of policy implementation
- Absence of policy workplans and indicators
- Difficulty in identifying climate related components in sectoral policies

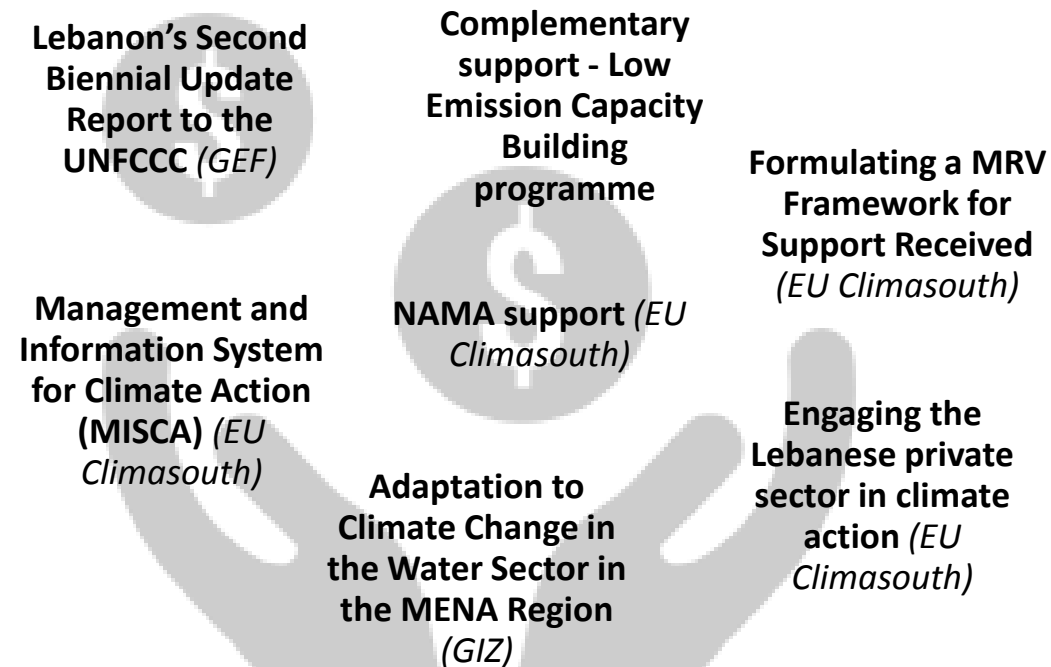
## Reporting needs and support received

- Data collection
- Institutional arrangements
- Definition and methodology synchronization
- Progress tracking

# Support received and needed (finance, technology, capacity building)

## Financial support

Only information on climate related projects that have been approved by donors and whose beneficiary is the Ministry of Environment since the submission of BURI has been considered in BUR II



## Part II: Experience and lessons learned in participating in the ICA process

# Preparing for the ICA process

- Answers were easy to find
- Video-conference facilitated communication
- Technical analysis revealed to be participatory, with the main aim to identify country specific needs

## Lessons learned from ICA for BUR I and BUR II

## IMPACT

Nominate the  
right person

Improve  
documentation

Prepare  
QA/QC plan

Improved  
internal  
planning

Engage stakeholders and data  
holders early in the process

Prepare  
sectoral  
experts

Prioritizing  
improvement  
plans

Include methodology and other details in  
the BUR

Frame capacity  
building and  
other needs

## Identification of capacity-building needs

### ICA – BUR1

<input checked="" type="checkbox"/>	(a) Enhancing the capacity of experts in the different ministries and agencies involved to prepare the BUR in accordance with the relevant guidelines
<input checked="" type="checkbox"/>	(b) Enhancing national capacity to formalize processes and protocols to ensure the continuous involvement of relevant national institutions in the systematic collection, compilation and verification of the AD and information required to be included in the BUR;
<input checked="" type="checkbox"/>	(c) Designing and implementing a complete national GHG inventory system;
<input checked="" type="checkbox"/>	(d) Enhancing the capacity of the relevant institutions involved in the planning, preparation and analysis of the GHG inventory;
<input checked="" type="checkbox"/>	(e) Developing an online AD and EF database and enabling its use by those providing data for the GHG inventory;
<input checked="" type="checkbox"/>	(f) Establishing and operationalizing a database to systematically collect information for the GHG inventory and on mitigation actions;
<input checked="" type="checkbox"/>	(g) Developing processes and incentives to facilitate the collaboration of the private sector on data collection for the GHG inventory;
	(h) Undertaking an uncertainty assessment of the national GHG inventory, providing information on the level of uncertainty of inventory data and underlying assumptions and describing the methodologies used for estimating those uncertainties;
	(i) Improving the key category analysis, taking into account the aforementioned uncertainty assessment;
	(j) Collecting key data needed for the calculation of emissions from key sectors (LULUCF, waste, energy, fluorinated gases, etc.) and assistance in developing country-specific EFs where possible for a greater number of key emission categories, especially agriculture, transport, energy and waste;
<input checked="" type="checkbox"/>	(k) Enhancing the capacity of the inventory team and mentoring additional experts by means of customized training;
	(l) Enhancing the capacity of sectoral experts and the project management team to analyse and report on mitigation actions;
<input checked="" type="checkbox"/>	(m) Developing progress indicators to calculate emission reductions resulting from incomplete projects;
<input checked="" type="checkbox"/>	(n) Supporting the quantification of emission reductions resulting from:
<input checked="" type="checkbox"/>	(o) Supporting the linkage of mitigation actions with the intended nationally determined contribution;
<input checked="" type="checkbox"/>	(p) Enhancing the capacity of experts working in the different ministries and agencies involved in the preparation, development and monitoring of NAMAs;
	(q) Supporting the identification of gaps and constraints in a more institutional manner and better translating them into concrete financial, technology and capacity-building needs;
<input checked="" type="checkbox"/>	(r) Developing and implementing clear criteria to differentiate climate from non-climate funding of projects;
	(s) Identifying and characterizing climate change projects at the national level in order to improve knowledge on the tracking of climate change financial resources;
<input checked="" type="checkbox"/>	(t) Quantifying the support aimed at climate change within projects that have only one component relevant to climate change;
	(u) Tracking the technology transfer carried out within the country;
	(v) Identifying and quantifying support needed.



# Taking the capacity-building needs forward....

- Training of BUR compilation team on 2006 GL and software – UNFCCC August 2018
- Training on Mainstreaming Gender in reporting – UNDP-GSP 2017-2018
- Trainings on IPCC guidelines for national stakeholders- GIZ Information matters Jan-Feb 2018
- Drafting 2 MOUs for sharing of information – GIZ Information matters – Jan-Feb 2018
- Management Information System on Climate Action (MISCA)- EU Climasouth 2016-2017
- Nama development for Forestry sector - EU Climasouth 2016-2017
- Tracking climate change funding - EU Climasouth 2016-2017
- Lebanon Climate Act – established in 2016 for the engagement of the private sector in climate action- supported by EU Climasouth 2016-2017
- Developing of progress indicators for mitigation actions- CBIT GEF- Jan 2019



GLOBAL SUPPORT  
PROGRAMME



Empowered lives.  
Resilient nations.

UN  
environment



**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

**Information Matters**  
Transparency through Reporting



A project funded by  
the European Union

# Data collection and documentation templates

The screenshot displays an Excel spreadsheet titled "Waste\_template\_external\_v7 - Excel" with the following components:

- Worksheet Header:** "Please provide data for the year 2016."
- Flowchart Structure:**
  - C Incineration** (tonnes)
    - C.1 Waste quantity received** (tonnes)
      - Waste incinerated** (tonnes)
        - Identified by source** (If available, break down into types):
          - Municipal (tonnes)
          - Industrial Waste (tonnes)
          - Sewage Sludge (tonnes)
          - Hazardous Waste (tonnes)
          - Clinical Waste (tonnes)
          - Other (tonnes)
        - Energy / Heat / Both produced?** (No/Yes)
          - Energy generation** (kWh)
          - Heat generation** (kWh)
        - Bottom ash** (tonnes)
        - Fly ash** (m3)
      - Waste sent to other destination** (tonnes)
        - Fuel used for incineration** (type of fuel, tonnes)
        - Please indicate where the waste was sent to:**
          - Type of facility
          - Name of facility
          - Quantity sent (tonnes)
        - Type of facility
        - Name of facility
        - Quantity sent (tonnes)
        - Type of facility
        - Name of facility
        - Quantity sent (tonnes)
    - C.2 Fossil liquid incineration?** (No/Yes)
      - Lubricants** (tonnes)
      - Solvents** (tonnes)
      - Waste oil** (tonnes)
      - Other (please specify)** (tonnes)
- Assumption box:** (Empty text box)
- Comment box:** (Empty text box)

- Navigation:** Tabs at the bottom include "QA", "tree", "Intro", "Overview", "A\_Sort\_Recycle", "B\_Biological treatment", "C\_Incineration" (active), and "D\_Landfills".

# GHG inventory and Mitigation Action MISCA



Home Data Management ▾ Output ▾ Reference Documents Mitigation Measures Administration Tool ▾

**BERARDI Darío**  
[ - Super Administrator ]



## OUTPUT

Year	Grid	Typology	CO <sub>2</sub> (in ton CO <sub>2</sub> )	CH <sub>4</sub> (in ton CO <sub>2</sub> eq)	NO <sub>2</sub> (in ton CO <sub>2</sub> eq)	GHG (in ton CO <sub>2</sub> eq)	CO (in Kg)	NO <sub>x</sub> (in Kg)	NM VOC (in Kg)	SO <sub>2</sub> (in Kg)	Action
2013	Source	produced/avoided									GO Q C
2013	Reference Approach	produced	21,284,622	0	0	21,284,622	0	0	0	0	[grid] [X] [trash]
2013	Power Plants	produced	7,680,827	5,753	16,985	7,703,564	1,370	18,263	457	60,043	[grid] [X] [trash]
2013	Industries	produced	4,246,908	2,178	9,646	4,258,732	519	10,372	259	28,276	[grid] [X] [trash]
2013	Private Generators	produced	4,318,313	7,540	10,954	4,336,806	890	8,763	294	26,643	[grid] [X] [trash]
2013	Residential, Commercial, Institutional	produced	657,936	221	1,954	660,111	210	1,051	53	80	[grid] [X] [trash]
2013	International Bunkers	produced	909,484	0	0	909,484	0	0	0	0	[grid] [X] [trash]
2013	Agriculture/Forestry/Fisheries	produced	12,073	35	31	12,139	3	16	1	74	[grid] [X] [trash]
2013	Transport	produced	6,603,197	32,466	17,606	6,653,269	595,267	61,421	111,902	6,504	[grid] [X] [trash]



10 ▾

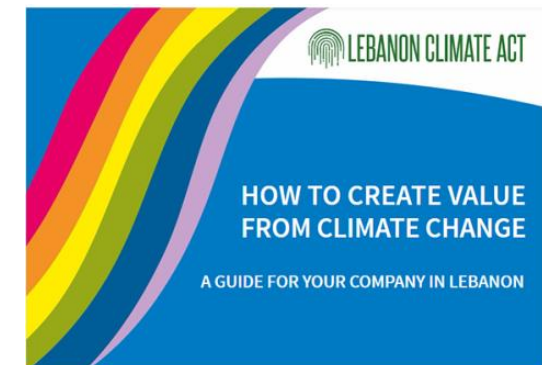
# GHG inventory and Mitigation Action MISCA

The screenshot shows the MISCA web application interface. The browser address bar indicates the URL is localhost:8501/siti/Dropbox/libano/lagrid.cfm?quale=88. The page header includes the MISCA logo (Management & Information System for Climate Action), the L.C.E.C. logo, and the Republic of Lebanon Ministry of Environment logo. The user is logged in as BERARDI Dario, L.C.E.C. Super Administrator. The main content area is titled "DATA GRID: POWER PLANTS | YEAR: 2012" and contains a "REFERENCES" section with two entries: "Yearly Electricity Generation Data" (Year: 2016, Author: EDL-Z- RAMMAL) and "energy data for TNC" (Year: 2012, Author: lea aboujaoude). Below the references is a table with the following data:

Break	Fuel	Actual Capacity (MW)	Electricity per Year (GWh)	Amount of fuel (1000 tonnes)
Zouk Thermal Power Plant	Heavy Fuel Oil (HFO)	607	1748.62	457.11
Zouk ICE	Heavy Fuel Oil (HFO)	0	0	0
Zouk ICE	Lubricants (LUBRI)	0	0	0

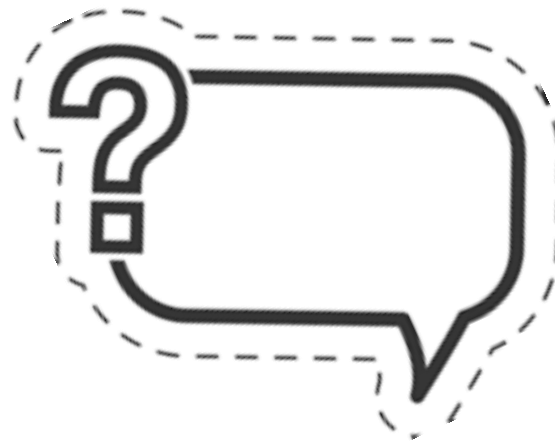
The footer of the page includes logos for the AGRICONSULTING CONSORTIUM, the European Union, and ClimaSouth, along with the text "Project funded by the European Union" and "Developed by DEV4U".

# A network for the private sector



## Part III: Response to questions received

# Questions received



## BUR2 experience and GHG Inventories



Question by **United States of America** at Thursday, 01 of November 2018

Category: National circumstances and institutional arrangements

We'd like to commend Lebanon on their 2<sup>nd</sup> BUR submission. What changes did you make in the compilation process with BUR2 from BUR1 for the GHG Inventory? Were there any efficiencies gained from BUR1? What advice do you have for other parties preparing plans for initial or next BURs? You may address this question in your presentation at the FSV session at SBI49.

Answer by **Lebanon** at --- --, ---- --:--

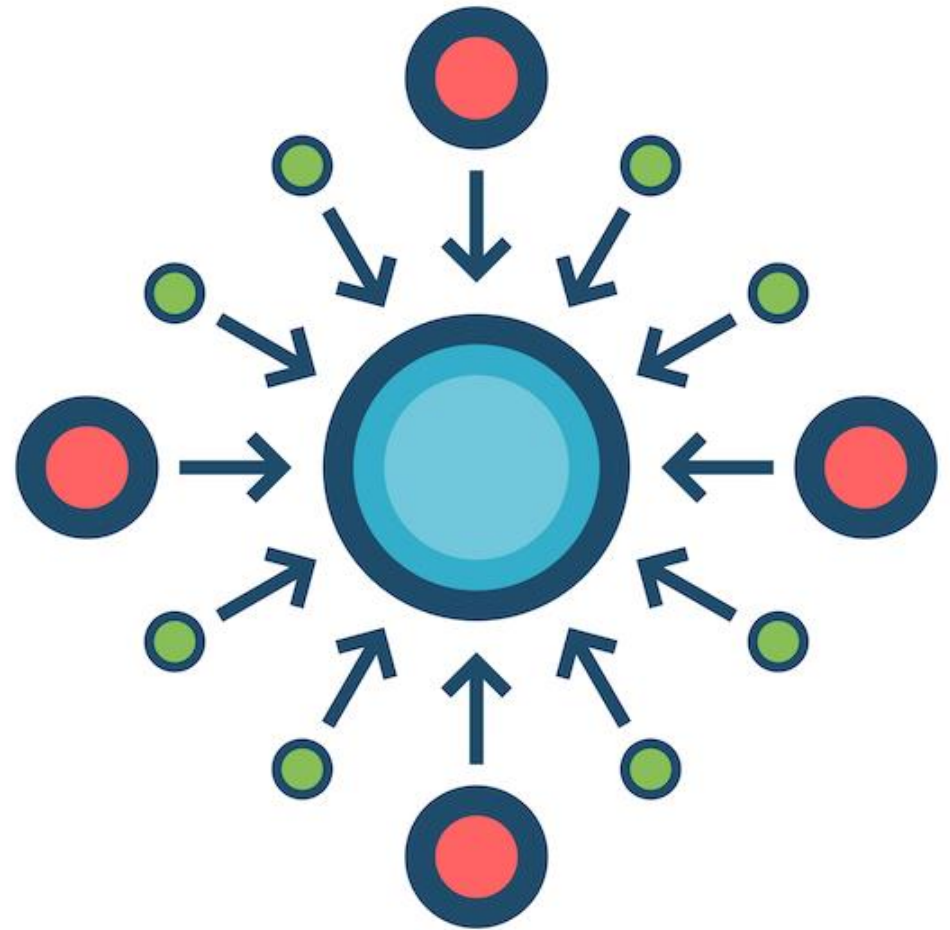
Not answered...



# Changes in the compilation process and efficiencies gained

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- Centralized compilation process
- Replace batch process to continuous process
- Defined roles and responsibilities
- Clearer expectations of end product
- Systematic data collection and narration
- Systematic documentation







## Advice to other parties for preparing BURs

- BUR should be viewed as a national document rather than only a reporting tool for the UNFCCC
- Documentation is crucial, not only for transparency but for improving data management and consistency of work across the years
- Sustainability of the BUR team plays a key role in sustainability of improvements
- Preparation should be a continuous process, no break allowed.



[www.climatechange.moe.gov.lb](http://www.climatechange.moe.gov.lb)