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The full SEACAP Toolbox is found here: https://comssa.org/
This chapter is one component of the SEACAP Toolbox for the full Toolbox, please visit: https://comssa.org/

What you will learn in this chapter:
• What is climate mitigation?
• The planning phase of the mitigation pillar
• How to compile a baseline emissions inventory
• How to report and act upon a baseline emissions inventory

This chapter has been designed for Local Government Officials and partners completing a SEACAP
The 3 pillars of a SEACAP

- Mitigation
- Adaptation
- Access to sustainable energy
SEACAP PROCESS

4 Phases

- **Initiation:** Political commitment and key actors engagement

- **Planning:** Assessments and plan elaboration

- **Implementation:** Putting the SEACAP into practice

- **Monitoring and reporting:** reviewing progress
Mitigation

Actions undertaken to reduce the emission of greenhouse gases and their concentrations in the atmosphere.
Evolution of GHG emissions: World vs Sub-Saharan Africa

Planning phase for the Mitigation pillar

Mitigation

Baseline Greenhouse Gases (GHG) emission inventory

Elaboration of the plan: Mitigation actions

Implementation, Monitoring and reporting
What is a Baseline Emission Inventory (BEI)?

BEI quantifies the amount of carbon dioxide equivalent (CO₂-eq) emitted due to specific activities in a local government’s territory within a calendar year. The BEI enables the municipal authority to select the appropriate actions to reduce greenhouse gas emissions.
Key Principles of a BEI

• **Simplicity and flexibility**: the approach can be adapted to the specific situation of local authorities (city size, level of expertise, political mandate, budget, etc.) and refined at a later stage;

• **Local Government boundary** (direct emissions and indirect emissions). It coincides with the territory where the final energy is consumed and the one tackled by the SEACAP measures;

• **The main greenhouse gases** to consider for this analysis are: Carbon dioxide (CO2); Methane (CH4); Nitrous oxide (N2O);

• **The main sectors** to be accounted for in the BEI and targeted by SEACAP measures are: Stationary Energy, Transportation and Waste (AFOLU can be taken into account if they represent an important factor of GHG emission);
Which are the source of emissions to be included in the BEI?

- Stationary Energy
- Transportation
- Waste
- IPPU (Industrial processes and product use)
- AFOLU (Agriculture, forestry and other land use)

Source: WRI, C40, ICLEI. Global Protocol for Community-Scale Greenhouse Gas Inventories
What are the sources of emissions to be included in the BEI?

- **Scope 1**: All GHG emissions from sources located within the boundary of the city (e.g. direct fuel use)

- **Scope 2**: All GHG emissions from the use of grid-supplied electricity, steam, heating and/or cooling within the city boundary

- **Scope 3**: All other GHG emissions that occur outside the city boundary as a result of activities within the city’s boundary (e.g. landfill emissions when waste generated inside the city but disposed outside)
Which are the source of emissions to be included in the BEI?

- **Stationary energy:**
  - Residential buildings
  - Commercial and institutional buildings and facilities
  - Manufacturing industries and construction
  - Energy industries
  - Agriculture, forestry, and fishing activities
  - Non-specified sources
  - Fugitive emissions from mining, processing, storage, and transportation of coal
  - Fugitive emissions from oil and natural gas systems
Which are the source of emissions to be included in the BEI?

- Transportation:
  - On-road and rail
  - Waterborne navigation
  - Aviation
  - Off-road

Which are the source of emissions to be included in the BEI?

• Waste/ Other non energy related:
  - Disposal and treatment of waste
  - Wastewater generation
Which are the source of emissions to be included in the BEI?

- Energy supply:
  - Grid-supplied energy within the local authority boundary
  - Grid-supplied energy by facilities owned (full or partial) by the local authority outside the local authority boundary
The results of the BEI must be reported in the JRC template.
Elaboration of the plan

3 steps

- Data validation
- Setting emission objectives and targets
- Actions planning
Setting emission targets – key principles

- **Boundary**: consistent with GHG inventory boundary
- **Target types**: base year; base year intensity; baseline scenario; fixed-level
- **Target year**: the same, or later, as NDC or as set by regional/national chapter (for target years beyond 2030, an interim target between now and 2030 shall be included; if NDC target is before 2030, additional 2030 target should be set)
- **Ambition**: at least as ambitious as unconditional components of NDC (mandatory), higher ambition recommended. If NDC increases, adjustment required within 5 years
- **Units**: percentage reduction from the base year or scenario year (except for fixed level targets)
- **Note**: target-setting is unpacked in more detail in presentation 2.7
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What you learnt in this chapter:
• What mitigation refers to
• The planning phase of the mitigation pillar
• What goes into a baseline emissions inventory (summary)
• How to report and act upon a baseline emissions inventory (summary)

The next chapter is Data Collection: Greenhouse Gas Emissions

2.1: Introduction to Mitigation Pillar
CoM SSA programme is jointly implemented by:

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Thank you

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