

National Systems for GHG estimation

Country presentation - MK

ECRAN Regional Training Seminar on
National Systems for GHG inventories (and projections) - part 2,
Tirana, 8-9 March, 2016

Overview

- ▶ Institutional arrangements
- ▶ GHG inventory team
- ▶ Data supply security
- ▶ High quality and effective GHG inventory
- ▶ Documenting and archiving
- ▶ Best practices

Institutional arrangements

Current state

- ▶ GHG inventory coordinated and reported by the **Ministry of Environment and Physical Planning** (Law on Environment).
- ▶ **RCESD-MASA** responsible for coordinating and supervising (QA) sectoral experts.
- ▶ The latest **IPCC 2006 Inventory Software** tool used.

Priorities for improvement

- ▶ **Institutionalising the GHG inventory preparation through ANALYTICAL UNIT which should ensure:**
 - ▶ Technical and analytical support of the policy making and strategic planning in the areas of climate change and energy
 - ▶ Harmonization of the national climate and energy policies and strategies
 - ▶ Consistency in the utilized energy statistical data and planning models and tools, as well as a coherent approach towards approximation EU climate and energy targets
 - ▶ Robust and consistent reporting at national level (energy balances, national climate change statistics) and at EU and international level (UNFCCC, IEA statistics, Energy Community reporting, EU MMR reporting).

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GHG inventory team

Current state

- ▶ Two experts for each of the GHG Inventory sectors:
 - ▶ **Enterer**, responsible for identifying/verifying data sources, collecting, entering and documenting the input data (activity data and emission factors)
 - ▶ **Checker**, responsible for checking and validating the input data and emission estimates, as well as the inventory documentation.
- ▶ **National Committee on Climate Change** (representatives of different governmental, non-governmental, business and academic institutions) closely involved in providing recommendations for resolving the identified data gaps

Priorities for improvement

- ▶ **Competent GHG inventory team established including the following three category experts:**
 - ▶ National Inventory Team Leader (NITL)
 - ▶ Member of the Inventory Development Team (IDT member)
 - ▶ Member of the Quality Assurance Team (QAT member)
- ▶ **The GHG inventory team capitalizing on the already created technical capacity**
- ▶ **The GHG inventory team containing minimum four full time experts.**

Data supply security

Current state (1/2)

- ▶ **Software solution EMI (Emissions Monitoring in Industry) for the industry sector developed**
 - ▶ A web based platform that gathers data directly from the industry installations (annual production, feedstock usage, and specific production process details)
 - ▶ Data collection for three inventories required from the industry sector- GHG inventory, Air pollutants cadastres and Cadastre of polluters, ensured.
 - ▶ Only one user friendly on-line form that appointed representatives from the industries fill only once per year
 - ▶ The experts from different departments can have access to the raw data and the reports with a separate administrative account

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Current state (2/2)

- ▶ A number of **relevant stakeholders from public and private sector** involved in the development of the GHG inventory
- ▶ **Increased access to information and data** relevant for introducing more detailed methodology and development of country-specific emission factors,
- ▶ **Direct contact** with installations and other national and governmental institutions, including the Chamber of Commerce and the State Statistical Office, proved essential in obtaining unpublished data collected only for internal purposes.
- ▶ **Several subsectors introduced** for the first time (e.g. aviation)
- ▶ **Higher tier methodology** introduced in many subsectors, including the cement industry, aviation and railway transport.
- ▶ **A long-term agreement for cooperation** and data exchange between the Macedonian Air Navigation Services Provider M-NAV and the MOEPP concluded.

Priorities for improvement

- ▶ **Data collection legislation adopted**
- ▶ **EMI software tool put into operation**
- ▶ **National statistics (particularly in non-energy sectors) improved as to become responsive to IPCC 2006 data requirements**

High quality and effective GHG inventory

Current state

- ▶ **QA/QC plan** developed under First Biannual Update Report
- ▶ The GHG inventory database for the **period 1990 - 2012** developed
- ▶ Six direct gases - **CO₂, CH₄, N₂O, PFCs, HFCs and SF₆**, and four indirect gases - **CO, NO_x, NMVOC and SO₂** included

Priorities for improvement

- ▶ QA/QC plan implemented
- ▶ The GHG inventory database for the period 2013 - 2014 developed
- ▶ CRF introduced

Documenting and archiving

Current state

- ▶ The data documenting (activity rate, emission and conversion factor) implemented **directly in the worksheets of the IPCC software**
- ▶ Below each table in the software **links to the appropriate data** source included
- ▶ **Transparency** of data collection process and rationale behind the selection of appropriate emission factors across the inventory ensured

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Priorities for improvement

- ▶ **Documenting and archiving permanently implemented**

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Best practices

Current state

- ▶ **Key sources analyses** conducted
- ▶ **Uncertainty management** implemented
- ▶ **Training materials** for national GHG inventory preparation developed

Priorities for improvement

- Best practices permanently implemented

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