COMPLIANCE COMMITTEE
ENFORCEMENT BRANCH
3rd meeting

4-6 MARCH 2008

HELLENIC CLIMATE CHANGE POLICY/ IMPLEMENTATION

Elpida Politi
National focal point

Hellenic Republic
Ministry for the Environment,
Physical Planning and Public Works

MAIN LEGISLATION & ACTIONS RELATED TO CLIMATE CHANGE

- 1994 Ratification of UNFCCC (Law 2205/1994)
- 1995
  - National Action Plan for the abatement of CO2 and other GHG emissions (1st National Climate Change Programme)
  - Submission of 1st National Communication to UNFFCCC Secretariat
- 1996 Establishment of Inter-ministerial committee on CC
- 1997 Submission of 2nd National Communication to UNFFCCC Secretariat
- 1998 Agreement on Burden sharing for EU overall KP target (-8%): Greece +25%

- 2002

  - Ratification of KYOTO Protocol(Law 3017/2002)

  - Adoption of 2nd National Climate Change Programme (Decision of the Council of Ministers 5/2003)

- 2003 Submission of 3rd National Communication to UNFFCCC Secretariat

- 2004

  - Establishment of Emissions Trading Scheme in Greece in compliance with 2003/87/EC Directive (Joint Ministerial Decision 54409/2632/2004)

  - Submission of 1st National Allocation Plan (NAP) to EC

- 2005 Approval of 1st NAP by the EC

- 2006
  - 4th National Communication and report on demonstrable progress submitted to UNFCCC Secretariat
  - Joint Ministerial Decision 36028/1604/2006: final national decision on 1st NAP
  - Submission to EC and approval of NAP2
  - Submission of initial report to UNFCCC Secretariat
- 2007
  - Revision of 2nd National Climate Change Programme
  - Designation of competent authorities for KP mechanisms (Joint Ministerial Decision 9267/468/2007)

2nd CLIMATE CHANGE PROGRAMME

Main policies of the 2nd Climate Change Programme:

- ***Electricity production***: further penetration of natural gas and RES, CHP
- ***Industry***: further penetration of natural gas and RES, energy conservation measures
- ***Residential and tertiary sector***: natural gas for heating and air conditioning in the tertiary sector, promotion of RES, improvements of the thermal behavior of existing buildings, energy conservation measures.

- ***Transport***: promotion of public means of transport (new metro lines in Athens, metro in Thessaloniki), improvements on traffic management, maintenance of cars, natural gas

- ***Agriculture***: organic farming, manure management systems

- ***Waste***: biogas recovery

- ***Industrial processes***: Reduction of HCFC -22 production (HFCs emissions)

REVISION OF 2nd NATIONAL CLIMATE CHANGE PROGRAMME

- Recent legislation such as
  - *the General Framework for Regional Planning and the special Regional Framework for RES*
  - *energy conservation strategy*
  - *Biofuels*

  is expected to greatly accelerate the implementation of already adopted measures

- Additional measures proposed
  - *Renewal of passenger cars fleet*
  - *Promotion of rail transport of goods*
  - *Further improvement of manure management systems*
  - *Ban on field burning for agricultural residues*
  - *Afforestation of croplands*

NATIONAL ALLOCATION PLANS

- **NAP 1 2005-2007**

  Total allowances: 223,200,594 t CO2

  Demand on 149 existing installations to reduce their expected emissions by 2.1%

- **NAP 2 2008-2012**

  Total allowances: 345,606,165 t CO2 (69.1 Mt per year) Included existing installations have to reduce their expected 2008-2012 emissions by 16,7%.

PROGRESS TOWARDS OUR KP TARGET

- KYOTO PROTOCOL target : + 25%

- Distance to target <u>according to latest BAU scenario developed in the context of NAP2</u>

  BAU : annual average 2008-2012 152.4 Mt
  Adjusted AA annual average : 133.7 Mt
  Effort to target = 18.7 Mt average per year for the period 2008-2012

- Expected annual contribution of ETS installations = 13.8 Mt (74% of total effort)

- Expected annual contribution of non – ETS sectors = 6.5 Mt

CREECE has the ability to reach its Kyoto Protocol target.

IMPLEMENTATION OF CC POLICY

Institutional / Legal arrangements

A. Designation of Competent authorities: *The Ministry for the Environment, Physical Planning and Public Works (MINENV)*, is designated as :

1. Competent authority for the implementation of KP by Law 3017/2002 (KP ratification)
2. Competent authority for the implementation of the Emissions Trading Scheme in Greece by the Joint Ministerial Decision 54409/2632/2004.

An Emissions Trading Office is established in MINENV.

The National Centre for the Environment and Sustainable Development (institution supervised by the MINENV), in co-operation with the Emissions Trading Office, develops and maintains the registry.

3. Designated National Authority for CDM and
   Designated Focal point for JI
   by Joint Ministerial Decision 9267/468/2007

B. Co-ordination

1. Law 3017/2002 :The Ministry for the Environment, Physical Planning and Public Works coordinates the competent Ministries, public and private bodies involved, for the implementation of the Law and the Protocol ratified by it and for the development and monitoring of National Programmes.

2. Joint Ministerial Decision 54409/2632/2004 and 9267/468/2007: The coordinating role of the Ministry for the Environment and the harmonization of the policies of the competent Ministries involved are exercised through an inter-ministerial committee comprised of 3 members of the Ministry for the Environment, two members of the Ministry of Development and two members of the Ministry of Economy and Finance.

NATIONAL SYSTEM

- In compliance with

✓ Article 5, paragraph 1 of KP

✓ Decision 280/2004/EC applicable to all EU MS

❑ The Hellenic Ministry for the Environment allocated an efficient budget to a contract with the National Observatory of Athens (2003-2007) **to ensure that the Ministry has in place a national system, consistent with the guidelines**, on time. For this reason the contract included the proper design of the national system and the national inventory preparation procedure. The contract included the training of the Ministry's personnel and the transfer of know- how and relative archives in order to ensure the continuation of the system by the Ministry.

- *Entity with overall responsibility for the inventory (incl. official approval and submission)*: Ministry for the Environment, Physical Planning and Public Works

Legal basis: Coordinating role for the implementation of KP and related decisions of the Meetings of the Parties (Law 3017/2002).

During the contract:

- The Ministry had always the overall responsibility and was the official contact with the UNFCCC Secretariat.
- The involvement of Governmental Departments and other agencies was based on the Ministry's coordinating role. Effective coordination was supported by an inter-ministerial committee by all competent ministries on CC.
- The NOA had the technical responsibility for the preparation of the inventory, which was officially approved and submitted to the UNFCCC Secretariat by the Ministry.

- The contract with NOA ended in May 2007
- The ERT visited Greece in this transitional period (23-28 April 2007).
- After the end of the contract, the continuation of the inventory process passed under the responsibility of the Division of Atmospheric Pollution Control, which had an active role in the official approval and submission of the inventory during the contract.

- Financial planning had been made to ensure enhancement of the Ministry's capacity according to the needs arisen, or to fund external support in areas needed.
- During 2007, decision for re-organisation of the system:
  - a more active role of the Ministry in the inventory process.

    The relative Division was supported by five more experts.
  - Technical and scientific support by the National Technical University(NTUA) of Athens for the compilation of national inventories.

RE-ORGANISATION OF NATIONAL SYSTEM

- ✓ Enhanced role of the Ministry in the overall inventory process. Establishment of a 5-member Climate Team with active involvement in monitoring of inventory process, coordination of Ministries for data provision, approval of inventory, etc., dissemination of information on developments concerning the inventory preparation.
- ✓ Designation of focal points in the Ministries involved in the inventory preparation. Active role in the provision of data and the inventory approval process.
- ✓ Continuous consultation between the Ministry, NTUA and focal points to evaluate progress and procedures to comply with guidelines.

Under the re-organisation of the national system

- ✓ Data provision from the focal points under the coordination of the climate team will ensure the consistency and comparability of the data used in the inventory with data reported under other obligations, and will improve the transparency of reporting.

- ✓ Continuous cooperation will ensure the timeliness and completeness of the inventory.

THANK YOU

FOR YOUR ATTENTION

HELLENIC REPUBLIC

MINISTRY FOR THE ENVIRONMENT,
PHYSICAL PLANNING AND PUBLIC WORKS

GREEK NATIONAL GHG INVENTORY SYSTEM

Introduction

In 2007, the Ministry for the Environment, in an effort to further enhance the reliability of the national GHG inventory system, reengineered the whole system.

Main aims of the reengineering of the system were:

- Setting-up of the institutional, legal and procedural arrangements necessary to perform the functions relating to inventory planning,
- Capacity of timely performance of the system,
- Technical competence of the staff involved in the inventory development process,
- Continuity of the inventory preparation process and knowledge management issues.

Participating Entities

The outcome of the reengineering process was a new organisational structure with new re-defined roles and responsibilities of the entities participating in it as follows:

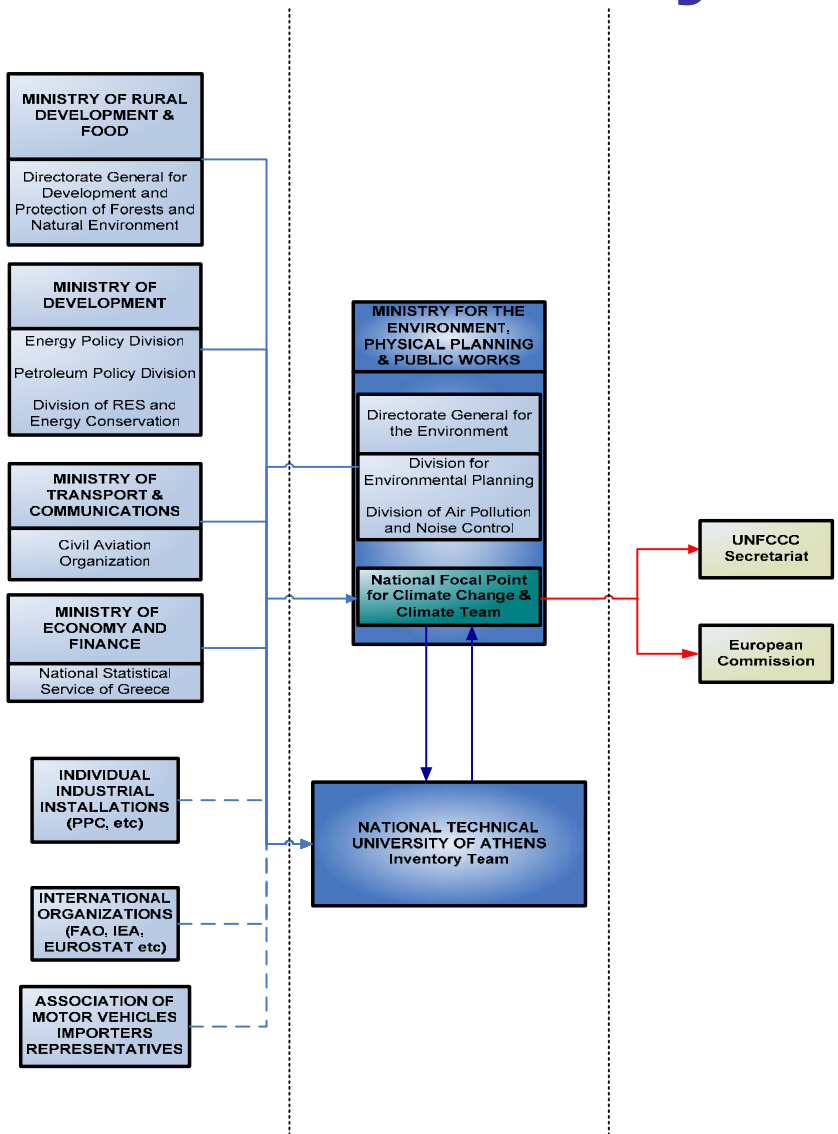
- The Ministry for the Environment designated as the national entity responsible for the national inventory.
- The National Technical University of Athens (NTUA) / School of Chemical Engineering, which has the technical and scientific responsibility for the compilation of the annual inventory.
- Governmental agencies and ministries, international associations, along with individual private industrial companies.

NTUA

- NTUA is one of the oldest and the most prestigious Academic Institutions in Greece, with a long experience on education, training and technological research /development.
- NTUA has successfully coordinated/participated in several hundreds of EU's projects.
- It has actually an annual research budget of about 40 MECU and administration services capable of providing the necessary support to the projects undertaken by the various teams.
- Chemical Engineering School has 85 faculty members and about 1200 students. The School consists of four Departments:

1. *Materials Science and Engineering*
2. *Synthesis and Development of Industrial Processes .*
3. *Chemical Sciences*
4. *Process Analysis and Plant Design*

Organisational Structure of the National Inventory System



Role and Responsibilities [1]

Ministry for the Environment, Physical Planning & Public Works

- Co-ordination of all ministries and governmental agencies involved, as well as any relevant public or private organisation.
- Official consideration and approval of the inventory prior to its submission.
- Response to any issues raised by the inventory review process under Article 8 of the Kyoto Protocol, in co-operation with the NTUA Inventory Team.
- Timely submission of the GHG inventory to the European Commission and to the UNFCCC Secretariat.
- Keeping of the Centralised Inventory File, which is delivered to the technical responsible for the inventory institution (currently NTUA) at the beginning of each inventory cycle.
- Administration of the National Registry.

Role and Responsibilities [2]

National Technical University of Athens (NTUA)

- Data collection and reliability check .
- Selection of the appropriate methodologies according to IPCC guidelines.
- Inventory improvement – recalculations.
- Uncertainty assessment.
- Preparation of the CRF tables and the National Inventory Report .
- Preparation and keeping of Centralised Inventory File.
- Development and implementation of QA/QC procedures.
- Internal audit of GHG inventory preparation.
- Training of representatives of providing data agencies on inventory issues.

Role and Responsibilities [3]

Main Data Providers (Government agencies and ministries, international associations, individual private or public industrial companies):

- Ministry for the Environment
- National Statistical Service of Greece, supervised by the Ministry of Economy and Finance .
- Ministry for Development .
- Ministry of Rural Development and Food .
- Ministry of Transport and Communications .
- United Nations Food and Agricultural Organization (FAO) .
- EUROSTAT .
- International Iron and Steel Institute, the International Energy Association .
- National Center for the Environment and Sustainable Development (NCESD), supervised by the Ministry for the Environment.

Role and Responsibilities [4]

Ministry for the Environment

The Ministry for the Environment provides information and data for:

- Large Combustion Plants (fuel consumption, NOx and SO2 emissions - Department of industries),
- Solid waste management (Department of Solid Waste Management) and
- Domestic wastewater handling practices (Department of Water Resources).

(Contact persons: Dimitris Chadjidakis, Ioannis Macheras, 147, Patission Street, 11251, Athens, Greece, tel.: +30210 8650053, fax: +30210 8646939)

Role and Responsibilities [5]

Ministry of Economy and Finance

The National Statistical Service of Greece, supervised by the Ministry of Economy and Finance, represents the main source of information for the estimation of emissions / removals from most of the IPCC source / sink categories.

(Contact persons: Ioanna Papanagnou, 46, Pireos str. and Eponiton, 18510 Pireas, Greece, tel: +30210 4852045, fax: +30210 4852453, e-mail: papanag@statistics.gr, and Konstantina Katartzi).

Role and Responsibilities [6]

Ministry for Development

The Ministry for Development, is responsible for reporting and maintaining annual statistical data for energy consumption and production as well as for providing those data to international organizations such as the International Energy Agency (IEA), the European Statistical Service EUROSTAT, etc

(Contact persons: Constantinos Chatzigianakis, Director of Electricity production division, 119, Mesogeion Avenue, 10192, Athens, Greece, tel: +30210 6969450, fax: +30210 6969416, e-mail ChatzigianakisK@ypan.gr, and Xarikleia Piperopoulou, Director in the General Secretariat of Industry, 119, Mesogeion Avenue, 10192, Athens, Greece, tel: +30210 6965809, fax: +30210 6965845, e-mail piperopouloux@ypan.gr).

Role and Responsibilities [7]

Ministry of Rural Development and Food

The Ministry of Rural Development and Food provides information and data for the main indices and parameters of rural economy (e.g. animal population, cultivated areas, crops production, etc.) and forestry.

Furthermore, the Ministry of Rural Development and Food is the responsible entity for establishing a system for the identification and measurement of areas of land subject to LULUCF activities under Article 3, paragraphs 3 and 4 of the Kyoto Protocol.

(Contact persons: Eirini Nikolaou, and Panagiotis Drougas, General Directorate of Forests, 31, Chalkokondili str., Athens, tel: +30210 2124728, fax: +30210 2125240122, e-mail: xa31u037@minagric.gr, xa31u025@minagric.gr).

Role and Responsibilities [8]

Ministry of Transport and Communications

The Ministry of Transport and Communications provides information and data for the vehicle fleet and its technical characteristics. The Civil Aviation Organization, supervised by the Ministry of Transport and Communications, provides information on Landing and Take-off cycles for both domestic and international aviation.

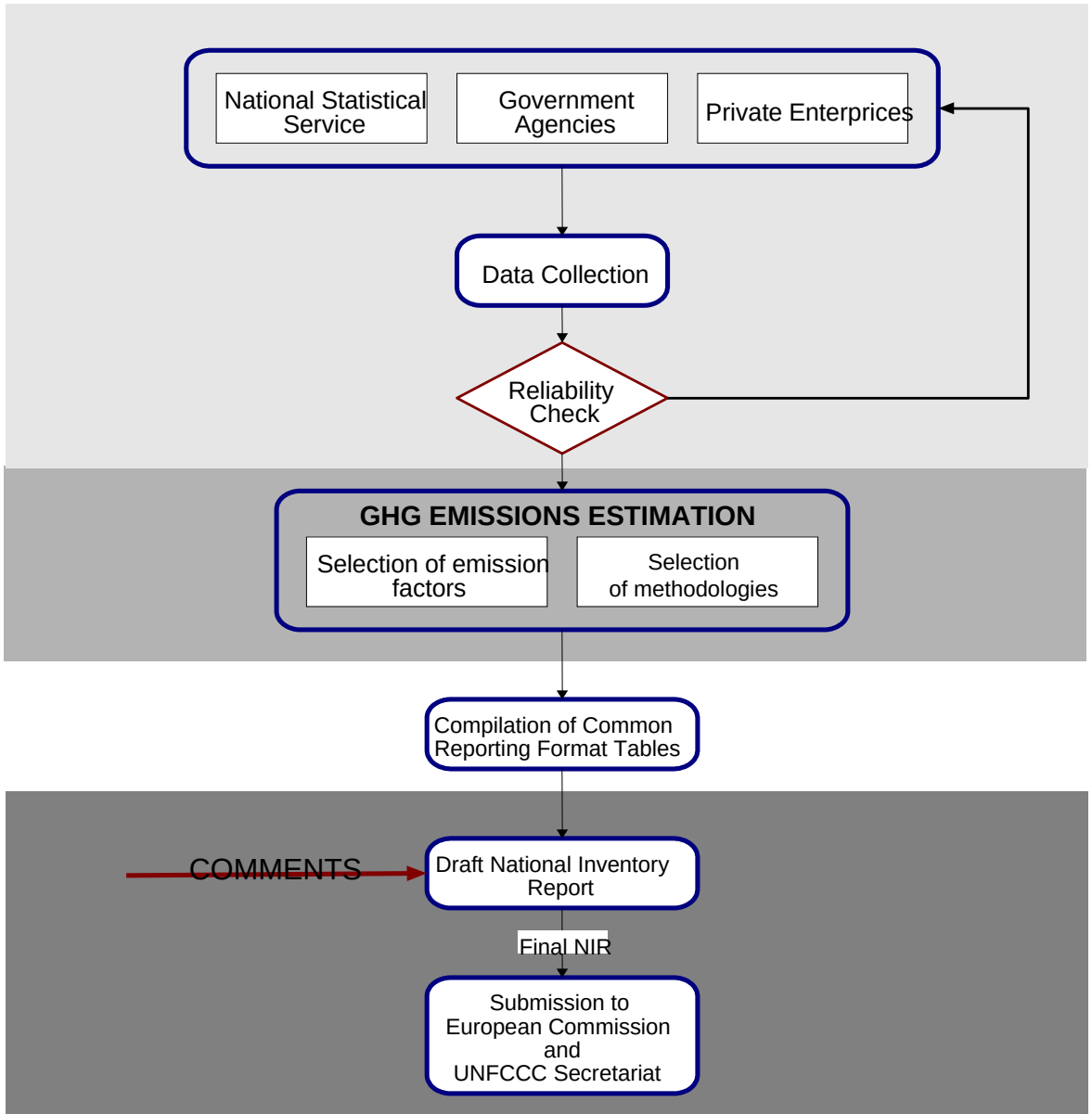
(Contact persons: Anastasios Kokkinos, tel: +30210 8916555, fax: +30210 8983226 and Panagiotis Tselikas, tel: +30210 6508233. fax: +30210 6508200).

GHG emissions inventory preparation process

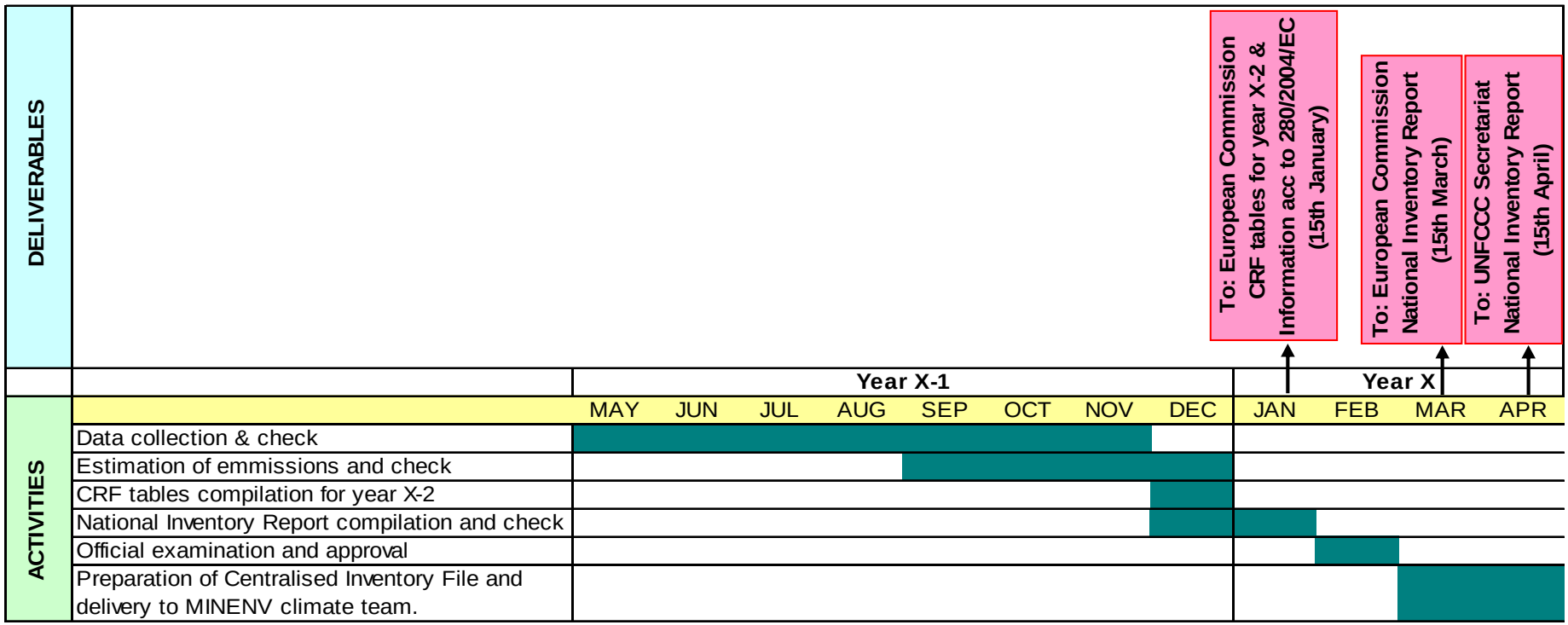
The compilation of the inventory is completed in three main stages:

- Stage 1: the first stage consists of data collection, quality control of all activity data as well as time-series assessment in order to identify changes that cannot be explained.
- Stage 2: the second stage consists of emissions/removals per source/sink category estimations, evaluation of the emission factors used, assessment of the consistency of the methodologies applied and quality control checks.
- Stage 3: The last stage involves the compilation of the NIR and its internal (i.e. within NTUA) check.

GHG emissions inventory preparation process



Timetable


DELIVERABLES
To: European Commission CRF tables for year X-2 & Information acc to 280/2004/EC (15th January)
To: European Commission National Inventory Report (15th March)
To: UNFCCC Secretariat National Inventory Report (15th April)
Year X-1
Year X
ACTIVITIES
MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR
Data collection & check
Estimation of emmissions and check
CRF tables compilation for year X-2
National Inventory Report compilation and check
Official examination and approval
Preparation of Centralised Inventory File and delivery to MINENV climate team.

QA/QC System [1]

The National Technical University of Athens is responsible for the implementation of the QA/QC system in close co-operation with the Ministry for the Environment.

The system is based on the ISO 9001:2000 standard and its quality objectives are the following:

- Compliance with the IPCC guidelines and the UNFCCC reporting guidelines while estimating and reporting emissions/removals.
- Continuous improvement of GHG emissions/removals estimates.
- Timely submission of necessary information in compliance with relevant requirements defined in international conventions, protocols and agreements.

QA/QC System [2]

The QA/QC system covers the following processes:

- **QA/QC system management**, comprising all activities that are necessary for the management and control of the inventory agency in order to ensure the accomplishment of the quality objectives.
- **Quality control** directly related to the estimation of emissions. The process includes activities related to (a) data inquiry, collection and documentation, (b) methodological choice in accordance with IPCC Good Practice Guidance, (c) quality control checks for data from secondary sources and (d) record keeping.
- **Quality assurance**, comprising activities related to the different levels of review processes including the review of input data from experts, if necessary, and comments from the public

QA/QC System [3]

The QA/QC system covers the following processes:

- **Archiving inventory information**, comprising activities related to centralised archiving of inventory information and the compilation of the national inventory report. More specifically, two master files have been organized aiming at the systematic and safe archiving of inventory information: the Input Data File and the Centralised Inventory File.

- **Estimation of uncertainties**, defining procedures for estimating and documenting uncertainty estimates per source / sink category and for the whole inventory.

- **Inventory improvement**, that is related to the preparation and the justification of any recalculations made.

Improvements of the national GHG Inventory System [1]

Action	Expecting Gain	Reference
New organizational structure of the inventory system. Decentralization of the inventory system structure. Active participation of MINENV.	➢ Establishment of institutional, legal and procedural arrangements necessary for the functions of national system. ➢ Ensuring of the continuity of the inventory preparation process and knowledge transfer.	✓ Article 5, paragraph 1 Kyoto Protocol,
Establishment of a Climate Team within the Ministry for the Environment.	➢ Ensuring of technical competence of the staff involved and capacity of the system for timely performance. ➢ Ensuring capacity of the system for timely performance.	✓ Article 5, paragraph 1 Kyoto Protocol, Decision 19/CMP.1, Annex, paragraph 10 b
Redefinition of official consideration and approval of the inventory.	➢ Establishment of institutional, legal and procedural arrangements necessary for the functions of national system.	✓ Article 5, paragraph 1 Kyoto Protocol, Decision 19/CMP.1, Annex, paragraph 12e.

Improvements of the national GHG Inventory System [2]

Action	Expecting Gain	Reference
Establishment of a formal co-operation with data providing agencies. Specific contact person appointment.	➢ Establishment of institutional, legal and procedural arrangements necessary for the functions of national system. ➢ Ensuring effective co-operation between involved entities in the inventory. ➢ Ensuring capacity of the system for timely performance.	✓Article 5, paragraph 1 Kyoto Protocol, Decision 19/CMP.1, Annex, paragraph 10a and 12c.
Use activity data from verified emission reports of the installations covered by the emissions trading Directive.	➢ Improvement of consistency, comparability and accuracy of inventory.	✓Article 5, paragraph 1 Kyoto Protocol Decision 15/CMP.1, Annex, paragraph 6. ✓Article 7, Kyoto Protocol, Decision 19/CMP.1, Annex, paragraph 6.
Training of data providing agencies' representatives	➢ Effective co-operation between involved entities in the	✓Article 5, paragraph 1 Kyoto Protocol, Decision 19/CMP.1, Annex, paragraph 10a and 12c.
Review of the system by independent experts.	➢ Improvement of transparency, consistency, comparability and accuracy of inventory.	✓Article 5, paragraph 1 Kyoto Protocol Decision 15/CMP.1, Annex, paragraph 15b.

GREEK NATIONAL GHG INVENTORY SYSTEM

Working Groups – Contact Persons [1]

MINENV Climate Team

1. Elpida Politi, National UNFCCC focal point
2. Sotiria Koloutsou
3. Moraiti Christina,
4. Balas Dionisios
5. Lytras Euthimios

GREEK NATIONAL GHG INVENTORY SYSTEM

Working Groups – Contact Persons [2]

NTUA inventory team

1. Prof. Ioannis Ziomas, Scientific responsible
2. Prof. Dimitris Marinos-Kouris
3. Athena Progiou, Dr Mech. Engineer
4. Ioannis Sempos, Chem.Engineer, MBA
5. Spyridoula Ntemiri, Chem.Engineer
6. Leonidas Kallinikos, Chem. Engineer

GREEK NATIONAL GHG INVENTORY SYSTEM

Working Groups – Contact Persons [3]

- ***Ministry for the Environment***
  Dimitris Chadjidakis
  Ioannis Macheras

- ***Ministry of Economy and Finance***
  Ioanna Papanagnou
  Konstantina Katartzi).

- ***Ministry for Development***
  Constantinos Chatzigianakis
  Xarikleia Piperopoulou

- ***Ministry of Rural Development and Food***
  Eirini Nikolaou
  Panagiotis Drougas

- ***Ministry of Transport and Communications***
  Anastasios Kokkinos
  Panagiotis Tselikas