

Environment and Climate Regional Accession Network (ECRAN)

Report on the Regional Training Seminar on National Systems for GHG inventories (and projections)

8-9 March, 2016, Tirana

ENVIRONMENT AND CLIMATE REGIONAL NETWORK FOR ACCESSION - ECRAN

WORKSHOP REPORT

Activity 3.2 (Task 3.2.2B/Task 3.2.3B)

REPORT ON THE SECOND REGIONAL TRAINING SEMINAR ON NATIONAL SYSTEMS FOR GHG INVENTORIES AND PROJECTIONS

Tirana, 8-9 March 2016





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LIST OF ABREVIA	LIST OF ABREVIATIONS				
ADCP	Annual Data Collection Plan				
BUR	Biennial Update Report				
CAEN	Croatian Agency for the Environment and Nature				
CBCCAM	Coordination Board on Climate Change and Air Management, Turkey				
CDR	Central Data Repository				
СОР	Conference on Parties				
CRF	Common Reporting Format				
DAFM	Department of Agriculture, Food and Marine, Ireland				
DECC	Department of Energy and Climate Change, UK				
DG	Directorate General				
ECRAN	Environment and Climate Change Regional Accession Network				
EEA	European Environment Agency				
EIONET	European Environment Information and Observation Network				
EPA	Environmental Protection Agency				
EPRTR	European Pollutant Release and Transfer Register				
ER	Emissions Registration				
ETC/ACM	European Topic Centre on Air Pollution & Climate Change Mitigation				
EtEA	Estonian Environment Agency				
EU	European Union				
EU ETS	European Union Emission Trading System				
F-gases	Fluorescent gases				
GHG	Greenhouse Gases				
ICC	Intergovernmental Coordination Committee				
INC	1st National Communication				
IPCC	Intergovernmental Panel on Climate Change				
JRC	Joint Research Centre (Ispra)				
КР	Kyoto Protocol				
LEAP	Long-range Energy Alternatives Planning System				
MAEP	Ministry of Agriculture and Environmental Protection, Serbia				
MENP	Ministry of Environment and Nature Protection				
MMD	Monitoring Mechanism Decision, Decision No 280/2004/EC				
MME	Ministry of Mining and Energy, Serbia				
MMR	Monitoring Mechanism Regulation, Regulation (EU) No 525/2013				
MoE	Ministry of Environment				
MOP	Meeting of Parties of the Kyoto Protocol				
MOU	Memoranda of Understanding				
MRV	Monitoring, Reporting and Verification				
MS	Member State				
NAEI	National Atmospheric Emission Inventory, UK				
NAMA	Nationally Appropriate Mitigation Actions				
NIR	National Inventory Report				
NS	National System				





LIST OF ABREVIATIONS				
OCLR	Office of Climate Licensing and Resource, Ireland			
PAM	Policies and Measures			
QA/QC	Quality Assurance / Quality Control			
RVO	Netherlands Enterprise Agency			
SEPA	Serbian Environmental Protection Agency			
SNC	Second National Communication			
SNE	Single National Entity			
TCCCA	Transparency, Consistency, Comparability, Completeness, Accuracy			
UNFCCC	United Nations Framework Convention on Climate Change			
WG	Working Group			





I. Background/Rationale/Legislation covered

Effective monitoring, reporting and verification (MRV) of greenhouse gas (GHG) emissions is critical for tracking progress towards the achievement of emission reduction targets.

As Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, the European Union and Member States are required to report annually on their GHG emissions. They also have to report regularly on their climate change policies and measures through National Communications.

The annual EU GHG inventory report is prepared on behalf of the European Commission by the European Environmental Agency each spring. In line with UNFCCC reporting requirements, each Member State's annual inventory covers emissions up until two years previously.

Regulation (EU) No 525/2013 on mechanisms for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change (hereinafter: Monitoring Mechanism Regulation or MMR) revises and strengthens the EU's greenhouse gas monitoring and reporting framework in order to provide a better platform for EU action to tackle climate change. It fully substitutes the Decision No 280/2004/EC (Monitoring Mechanism Decision or MMD). Its main goals include improving the quality of the data reported, enabling the implementation of the Climate and Energy package through accurately tracking the progress of the Union and EU Member States towards meeting their emission targets for 2013-2020 and taking into account the periodic update at international level of the use of metrics (Global warming potentials) and methodologies (IPCC Guidelines) in the determination of greenhouse gas inventories.

The proposed activities are a follow-up of the activities on the monitoring mechanism implemented in the framework of RENA, the so called "MMD Exercise", which was held in the period 2010 – 2011. The main purpose of the exercise was to start developing better knowledge and capacity and in gradually improving/increasing the technical and institutional ability of the RENA countries to prepare submissions of the National Inventory Reports in the framework of the MMD.

The exercise concentrated on improving the process of the preparation of sound inventories towards a full and harmonised combustion fuel sector GHG inventory using the appropriate guidelines and tools. The focus was on the CRF fuel combustion activities 1A. The project deliverables were:

- A description of the national systems in the beneficiaries with emphasis on activity data flow scheme
- Status of national energy balances, calculation of CO₂ emissions and first data filled in for fuel combustion activities using the CRF Reporter tool
- Completing CO₂ emissions estimates from CRF fuel combustion activities

This activity will build on the experiences and results of the above "MMD exercise" under RENA.

Assistance will now be provided to the beneficiary countries to start developing robust national inventory systems that are capable of preparing complete, accurate and transparent annual greenhouse gas inventories and inventory related chapters of biennial reports and national communications in line with the requirements for UNFCCC Annex-I Parties and the EU Monitoring Mechanism Regulation (MMR).

The following results are expected for this Working Group

- Improved overall quality of the GHG inventory work in the beneficiary countries

- Institutional, legal and procedural arrangements identified for a national system which is linked to the planning, preparation and management of the inventory
- Improvement of the data quality and technical capacity for preparing GHG emissions inventory elements of the biennial reports and national communications

The Exercise started in October 2015 and is expected to run for one year. The first training meeting was held in October 14 - 16, 2015 in Zagreb. The workshop introduced the tasks ahead of us and the following homework task was formulated:

- 1. Please revisit the country **outputs/indicators of achievement**. Are you still happy with them? If not please redefine
- 2. We receive a modest budget for the next 2 years to deliver output. Which activities I will need to implement (possibly in sequential order) to achieve identified outputs
- 3. Fill the final results into the following log frame matrix (only coloured boxes to be filled

Wider objective	Indicator of achievement	Sources of information	Assumptions/Risks
To ensure compliance with the MMR establish through a fully functioning national system (5 – 10 years)			
Immediate objective	Indicator of achievement	Sources of information	Assumptions/Risks
A permanent national system for (1) the estimation of anthropogenic emissions of greenhouse gases by sources and sinks; for (2) the assessment of the impacts of policies and measures for greenhouse gas emissions as well as (3) for greenhouse gas projections, and for (4) the reporting of inventories and national inventory reports.			
Result	Outputs/ Indicator of achievement	Sources of information	Assumptions/Risks
Result 1: Functioning Institutional arrangements: A set of short term institutional building blocks in place to allow future recurring reporting and continuous improvement on GHGs mitigation inventories, projections and PAMs.	PLEASE FILL	PLEASE FILL	PLEASE FILL
Result 2; Building a team: A team has been built and trained to fill the identified institutional arrangements	PLEASE FILL	PLEASE FILL	PLEASE FILL





Result 3: Data supply security: Data supply system developed	PLEASE FILL	PLEASE FILL	PLEASE FILL
Result 4: Delivering a quality and effective GHG inventory (with timeseries for year X to Y -2)	PLEASE FILL	PLEASE FILL	PLEASE FILL
Result 5: Marketing the inventory: Increased awareness on advantages and opportunities for the country of a strong inventory framework	PLEASE FILL	PLEASE FILL	PLEASE FILL
Activities	Means (Budget required	and/or manpower require	ed
PLEASE FILL	PLEASE FILL		
Activity scheme associated with Result 1			
1. Xyz			
2. Xyz			
3. Xyz			
4. Etc.			
Activity scheme associated with Result 2	PLEASE FILL		
1. Xyz			
2. Etc.			
Continued: Activity schemes for other results etc.	PLEASE FILL		

In this workshop the focus was on enhancing a set of country plans for National System improvement

II. Objectives of the Training

Objectives

The aim of this training seminar was to gradually improve/increase technical knowledge and institutional and procedural capacities of the ECRAN countries to prepare submissions of the National Inventory Reports according to the requirements of the MMR.

The training seminar is covering following activities of ECRAN's Working Group 2 on "National inventory systems and the EU Monitoring Mechanism Regulation":

- Sub-Task 2.2 B: Regional MMR exercise on selected sector
- Sub-Task 2.3 B: Regional Training on various reporting aspects of the MMR





The above sub-tasks will deal with the improvement of national systems and institutional arrangements. This will enable countries to establish a strong institutional platform to build technical capacity in compiling GHG estimates.

The results of this training will feed into assessment report which will include recommendations for short and long-term inventory improvements in relation to applied methodology, activity data and emission factors in the beneficiaries.

This regional training seminar is based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the UNFCCC and MMR reporting requirements.

Expected Results

The expected results were:

- Increased understanding of requirements for improving national systems for GHG estimations
- Identified list of priorities for our country's short and long-term GHG inventory
- Country specific plan has been elaborated for improving the national system for GHG estimations
- The training enhanced the understanding of the EU Monitoring Mechanism Regulation in connection with reporting on GHG inventories





III. Highlights from the Training

Reference is made to Annex I for the agenda. Below only the main elements are highlighted. The presentations are presented in Annex III.

Highlights Day 1 – 8 March 2016

Day 1 – 8 March 2016, , Tirana, Albania (Hotel Doro City)

Introduction to Sub-task 2.2B and 2.3-B: - Imre Csikós

The Presentation focused on the **UN Climate Change Conference in Paris** that adopted a historic agreement in December 2015 that forms the cornerstone for continued international cooperation on climate change, building on the intended nationally-determined contributions (INDCs), and initiatives in the framework of ECRAN and bilateral cooperation in particular through IPA. All this demonstrates an unprecedented political determination from around the world. For many of the ECRAN countries the preparation of INDCs in 2015 represented the first comprehensive attempt to set out a national vision for transitioning to a low emission and climate resilient economy, thereby creating new economic opportunities in renewable energy, energy efficiency, urban development, sustainable farming systems, etc. The challenge now is to help convert these visions into further cooperation activities between the EU and the ECRAN beneficiaries, bankable projects and into realities on the ground.

The aim of the Paris Agreement is described in Article 2 of the Convention, "enhancing the implementation" of the UNFCCC through:

- (a) Holding the increase in the global average temperature to well below 2 °C above preindustrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Countries furthermore aim to reach "global peaking of greenhouse gas emissions as soon as possible".

The contribution that each individual country should make in order to achieve the worldwide goal are determined by all countries individually and called "nationally determined contributions". Article 3 requires them to be "ambitious", "represent a progression over time" and set "with the view to achieving the purpose of this Agreement". The contributions should be reported every five years and are to be registered by the UNFCCC Secretariat. Each further ambition should be more ambitious than the previous one, known as the principle of 'progression'. Countries can cooperate and pool their nationally determined contributions. The INDCs pledged during the 2015 Climate Conference serve— unless provided otherwise—as the initial Nationally Determined Contributions (NDCs).

Introduction to the workshop: - Justin Goodwin





The presentation started with a wrap up of the terminology used throughout the exercise and explained the objectives and expected results of the proposed workplan for the so called MMR exercise. The need was emphasised to see the building of National Systems as building national centres of excellence.

The relevance of aligning with the MMR requirements for the ECRAN beneficiary countries becomes more urgent with the Paris Agreement. To allow countries to properly follow up on above requirements, there is a need to develop permanent national systems for (1) the estimation of anthropogenic emissions of greenhouse gases by sources and sinks; for (2) the assessment of the impacts of policies and measures for greenhouse gas emissions as well as (3) for greenhouse gas projections, and for (4) the reporting of inventories and national inventory reports.

The status of the homework was outlined in summary and the need to further develop the activities and indicators associated with the results was outlined.

Status of C	ountry Plans fo					
	-	Result 1: Functioning	Result 2: Building a	Result 3: Data Supply	Result 4: Delivering a quality and effective	Result 5: Marketing the
	Results/Activity	Institutional	team:	security:	GHG inventory.	inventory:
	3_Result	Provided	Provided	Provided	Provided	Provided
ALDANIA	4_Required Activity	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
Bosnia &	3_Result	Provided	Provided	Provided	Provided	Provided
Herzegovina	4_Required Activity	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
KOSOVO	3_Result	Provided	Provided	Provided	Provided	Provided
KUSUVU	4_Planned Activity	Provided	Provided	Provided	Provided	Provided
MONTENECRO	3_Result	Provided	Provided	Provided	Provided	Provided
MONTENEGRO	4_Required Activity	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
REPUBLIC OF	3_Result	Provided	Provided	Provided	Provided	Provided
MACEDONIA	4_Required Activity	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
CEDDIA	3_Result	Provided	Provided	Provided	Provided	Provided
JERDIA	4_Required Activity	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
TURKEY	3_Result	Provided	Provided	Provided	Provided	Provided
TURKET	4_Required Activity	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided

Implementation of the Monitoring mechanism Regulation (525/2013/EU) in Bulgaria – Detelina Petrova

According to Article 5 of the MMR, the Competent Authority must have access to:

- data and methods reported for activities and installations under Directive 2003/87/EC (ETS Directive);
- data collected through the reporting systems on fluorinated gases in the various sectors, set up pursuant to Article 6(4) of Regulation (EC) No 842/2006 (F-gas regulation);
- emissions, underlying data and methodologies reported by facilities under Regulation (EC) No 166/2006 (E-PRTR);
- o data reported under Regulation (EC) No 1099/2008 (energy statistics regulation);

The preparation of the Inventory is an effort which is done in close consultation and collaboration with the different departments within the Ministry.









In addition, Regional Inspectorates provide data under the F-gases Regulation and the National Statistics Institute provides data reported under the energy statistics regulation.

Article 7(1)b of the MMR. The air pollutants CO, SO_2 , NOx and VOC are reported under the MMR/UNFCCC as well as under NEC and CLRTAP; there are inconsistencies between the air pollutants emissions reported in the GHG inventory and the data reported under the air pollutant inventory should be explained. Identified problems relate to:

- o Split responsibility between different institutions (NSI and ExEA)
- o Different database, level of disaggregation and methods
- o Limited access to facility level data due to the confidentiality of the Statistical Law
- o Different reporting deadlines

It is important to integrate data for GHGs emissions and air pollutants in one system and to use the same statistical data, methods and assumptions to estimate emissions for the same sectors in the two emission inventories.

Article 7(1)k, I of the MMR on the use of EU ETS data in the GHG inventory: EU ETS data are to be integrated into the MMR reporting system. This includes reporting on the actual or estimated allocation of the verified emissions to the source categories of the national GHG inventory and the ratio of those verified emissions to the total reported greenhouse gas emissions, and reporting on results of consistency checks of inventory data with the verified emissions under the EU ETS Directive.

Issues identified include comparability between EU ETS and GHG inventory data and time series consistency with EU data:

o different level of reporting



This Project is funded by the European Union



- o different scope of reporting (the EU ETS includes only combustion installations over 20 MW)
- o differences in fuels classification in energy statistics and EU ETS reports
- \circ $\;$ different allocation of the EU ETS data into the IPCC categories
- Lack of detail data before 2007

Reporting requirement Article 7(1)m of the MMR: Use of facility level emissions reported under EPRTR. Identified issues related to:

- Different level of the reporting requirements of the EPRTR Regulation (industrial sites) and the MMR (IPCC source categories)
- o E-PRTR activities do not separate combustion and process emissions
- E-PRTR do not report activity data
- o Scopes of the reporting is different (the facilities report emissions when exceed specific thresholds

Reporting requirement: Article 7(1)m of the MMR: reporting on the consistency of data reported on F gases: Results of checks performed on the consistency of GHG inventory with NEC inventory, F-gas regulation and Eurostat energy data.

- Data on F-gas quantities were obtained from the reports that importers, operators and service companies are required to report each year since 2009 to the Regional Inspectorates of Environment and Water (RIEW);
- Data from 2010 was used for extrapolation back in time to ensure time series consistency.
- Consistency Checks with the Energy Statistics: differences of more than +/- 2 % in the total national apparent fossil fuel consumption with the energy data should be explained: difference could be due to updates of data, different calorific values and fuel classification

Reporting requirements on systems for cropland management and grazing land management

- report on the systems in place and being developed to estimate greenhouse gas emissions and removals from cropland management (CM) and grazing land management (GM)
- report on the institutional, legal and procedural arrangements made related to the estimation of CM and GM
- report on how their national estimation methodologies related to the activities CM and GM are in accordance with IPCC methodologies and UNFCCC reporting requirements

Reporting on policies and measures:

- Requirement to establish national system for reporting on projections, policies and measures
- Information on legal framework for reporting (responsibility of national entity and various agencies involved, processes for collecting data, selecting assumptions, methodologies and models and QA/QC activities)
- o An organigramme of the current system of PAMs reporting was shown

<u>Croatian experience in establishing a national system for GHG inventory reporting – Tatjana Antolic,</u> <u>Vlatka Palcic</u>





The presnetation extressed the need to establish a national inventory system before the accession date:

- **until 2020** no obligation to reduce GHG emissions (no obligations to UNFCCC (except if they decide to do so on their own)
- **from 2020** Obligations under the Paris Agreement. They will have Nationally Determined Contributions (NDCs)
- After accession to the EU country will get:
 - Emission Trading Scheme (ETS)
 - Annual national emission allocations for non-ETS sectors (Effort Sharing Decision, ESD)
 - Obligations to monitor and report on GHG emissions

The Croatian National System is demonstrated.

Croatia established national system with all legal and institutional arrangements with clear defined roles in the Air Protection Act (Article 77). It regulates timeliness and completeness of requirements. Details of the institutions, working groups, their roles and tasks and deadlines were presented.

From 2015 substantial financial means for necessary researches are available from auctioning revenues. The issue of outsourcing of tasks including the pros and cons for Croatia were explained. The need for establishing g**ood cooperation** with research institutions and all stakeholders involved in preparation and making of reports was emphasized.

The deliveries for 2015 and the timeframes were presented, and the difficulties encountered with a non-functional CRF reporter tool.

The Review process with the EEA, Member States and the Commission was outlined. The annual review is carried out in two steps. The **1**st **step** includes checks to verify the TACCC of the submitted information, and this may include:

- \circ $\;$ assessment whether all emissions source and GHG are reported
- o assessment of consistency of data time series
- o Emission factors
- o use of NE (not estimated) keys
- o analysis of recalculation
- \circ $\,$ comparasion of verified emission sreported $\,$ under the ETS $\,$
- o comparasion Eurostat's sectoral approach with the MS sectoral approach
- $\circ~$ assessment whether recommendations from earlier Union or UNFCCC reviews have been implemented by the MS

In cases where inventory data is prepared in a manner which is inconsistent with the UNFCCC guidance documentation or Union rules, the **2nd step** is carried out. The 2nd step is more detailed and may include a detailed assessment, analysis, examination, follow up on the results from 1st step review. Reviews shall be carried out pursuant to the pre-agreed schedules.

In 2015 there were issues related to the CRF software. This uncommon circumstance disrupted the national planning and additional meetings, new stricter deadlines and additional costs were needed.







Montenegro - National System for GHG inventories (and projections) – Djordje Vulikic

A presentation was given of the current GHG inventory process in Montenegro. The EPA is coordinating the GHG inventory. The main issue relate to allocation of human resources to implement the activities. The data providers send data on voluntary basis in an informal format. It is not their official duty. The data for the greenhouse gas inventory are obtained from various sources, specifically for every sector; These data are obtained by the team (3 employees) in EPA, which is responsible for compiling of the greenhouse gas inventory.

National Council for Sustainable development UNFCCC Verification EPA own QA/QC procedures and erificatio National Council for data provided by Ministry of Economy – verification of Energy data Sustainable Development MONSTAT Working group on Regulatory Energy Agency Ministry of Agriculture and Rural National Communication BURs climate change (WG3) Developme GHG in international databases (e.g. Eurostat) Ministry of Sustainable Development and Tourism feedback feedback After feedback implem Environmental Protection Agency (EPA) Climate Change department Reporting mitigation actions Ministry of Sustainable Development and Tourism Environmental Protection Agency (EPA) Environmental Protection Agency (EPA) Monitoring mitigation action NO YES Standardized reporting format Environmental Protection Agency (EPA) MONSTAT **GHG** inventories Ministry of Agriculture Ministry of transport Ministry of internal affairs Instalations Ministry of Economy Air and maritime Road transportation Data providing Renewable energy Energy balar LULUCE

A proposal exists for the institutional system of a MRV scheme in Montenegro.

EPA is conducting its own quality control procedures (with external help). The quality control is carried out using data provided by Ministry of Economy as well as Regulatory Energy Agency and also data collected by Ministry of Agriculture and Rural development are used. MONSTAT by itself is having its own verification procedures, which also includes official control from Eurostat. This is an important part of the verification of activity data. As third party for verification the Working Group on Climate Change under National Council of Sustainable Development is used. EPA is obtaining comments from all experts and institutions participating on the verification and the comments are reflected in the final reporting. Since the reporting is complete, it is forwarded to Ministry of Sustainable Development and Tourism (Climate Change Department) which is then responsible for the official reporting to international bodies.

Future challenges relate to the improvement of the system for emissions calculation in the sense that EPA does not depend on the external assistance (to train EPAs staff) and to improve the QA/QC system according to the IPCC 2006 Guidelines.



This Project is funded by the European Union



Albania - National System for GHG inventories (and projections) – Laureta Dibra

During INDC and NatCom preparations it was found out that there is no capacity within the Ministry to allow GHG inventory reporting on a recurring basis and this needs to be built up.

Albanian Institute of Statistics (INSTAT), different ministries and specialized institutes provide activity data for all sectors as required for the GHG Inventory. The Law No.7687 dated 16.03.1993 "On Statistics" defines INSTAT as the unique central institution in the country under the Council of Ministers, which approves the National Statistical Program, the criteria of the evidences as well as methodological ones, nominations and classifications for production of uniform national statistics underlying the obligations of economic subjects, be they private or public.

Improvement of Energy Statistics: According to Eurostat, energy balance (consumption side) includes households, service, industry, transport, agriculture and non-energy use sector. The State Statistics Office, INSTAT intends to respond to EU requests for data on energy sub-sectors and other sectors. These data might also serve the inventory and Mitigation Scenarios Analysis

However longer-term improvements of data collection on the energy sources, including all GHG data are needed. This needed improvement of energy statistics is based on two laws: the Energy Efficiency Law and Renewable Energy Sources (RES) Law especially for energy activity data

Improvement of other GHG Statistics: The environmental dimensions, and climate change in particular, should be mainstreamed to official statistics. In addition there is a need to strengthen the capacity of INSTAT to produce high quality basic statistics with standard concepts and classifications. The use of official statistics for scenario development and modelling should be improved and promoted and the role of official statistics in the production of emission inventories should be strengthened

An MMR Regulation is under development and to be submitted to the Government for approval in March 2016.

Kosovo¹ - National System for GHG inventories (and projections)

The short and long term plan towards the development of a National System was presented.

An important issue is that there are no funds to hire new or additional staff for a National System. It will be required to assign tasks to existing available staff and there is a risk of overburdening related to assigned tasks per expert.

Several tasks in relation to desired results on the short term (end of 2017) have been identified already in relation to legislation, data supply security, building the team, quality of the inventory and awareness building. Already a legal framework has been established though two by-laws, but further developments are required.

For example, to achieve data supply security the following is considered

¹ The designation is without prejudice to position on status and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo declaration of independence.





- The register with all data groups (detailed) and respective institutions/organizations the data to be provided by developed;
- Discussion and information sessions with all institutions / organizations organized;
- Parties agreed on the data supply system;
- Register and the model of DSA developed by first half of 2017

Delivering a quality and effective GHG inventory: The target is now to develop a full inventory, in compliance with IPCC 2006 Guidelines, which covers 2000 - 2018 time series, developed by the end of 2020. Because of the low budget, and other reasons, the MESP it is not yet committed to supporting the sector and to allocating needed appropriate resources

On the long term continuous inventory improvements through increased capacities on

- Higher tier calculations
- Projections
- o TACCC implementation
- o Archiving
- o NIR

Serbia - National System for GHG inventories (and projections)

The establishment of a National GHG Inventory is required by Article 50 of the Law on Air Protection in order to monitor emissions and removals of greenhouse gases. The national inventory is conducted by the Environmental Protection Agency (SEPA). In accordance with the obligations under this section in the Department of National Register of polluters sources of the Agency.

Other entities involved in the process include:

- The Statistical Office of the Republic of Serbia (SORS) which is publishing sectoral statistics for the Republic of Serbia (energy, industry, transport, agriculture, forestry, etc.) is in charge of producing the annual Serbian Energy Balance (EB) and reports those data to Eurostat and International Energy Agency (IEA).
- The Ministry of Mining and Energy (MME) Strategy Planning Office: Based on their own survey to energy suppliers and transformation operators, this section of the MME carries out annually a three years energy balance containing data from the previous year, the current year and a forecast for the following year. The Strategy Planning Office is also in charge of the Energy strategy.
- Ministry of Internal Affairs Police: The Serbian Police is responsible of the vehicle registration and maintain the related database.
- o Customs Office
- o Public enterprises

Under the activity 2.6 of the IPA 2012 project: "Establishment of a monitoring, reporting and verification system necessary for the effective implementation of the EU emissions trading system (EU ETS)", analysis on compliance of National GHG inventory's preparation with the EU and UNFCCC requirements was conducted. Main conclusions are that "even SEPA is already going further than its current requirements (Serbia is non-Annex I), further activities will be necessary to fill in some gaps





between the works currently carried out and Annex I countries obligations; Based on recommendations it is needed to:

- Improve the completeness and the transparency in order to fulfil completely the requirements of an Annex I country,
- Develop of a detailed description of the methodologies applied, presenting input data, justification of the parameters' selection, assumption,
- Provide explanations for dips and gaps in the emissions time series for all the calculations realized outside the IPCC Tool,
- Present the planned improvements in the inventory reports.

MAEP initiated the IPA 2013 project: "Establishment of mechanism for the implementation of MMR". This current MMR twinning project started in May 2015 and will last 24 months. The Project Components are:

- Institutional and procedural arrangements for implementation of MMR and Decision 406/2009 established
- Legal framework for implementation of the Regulation (UE) 525/2013 and the monitoring and reporting requirements of Decision 406/2009/EC established
- Administrative and institutional capacities of the relevant bodies in the field of climate change strengthened

Serbia established a special MMR working group involving all the relevant governmental institutions and stakeholders

<u>Former Yugoslav Republic of Macedonia – National System for GHG inventories (and projections),Natasa Markovska</u>

An overview was given of the of institutional arrangements, the GHG inventory team, data supply security, inventory preparation, documenting and archiving and best practices

MEPP coordinates the GHG inventory work (as required by the Law on Environment. The Macedonian Academy of Sciences and Arts is responsible for the coordination and supervision of the sectoral experts. The latest IPCC 2006 Inventory Software tool is used.

Priorities for improvement include the need to establish an Analytical Unit in or with the Ministry for the GHG inventory preparation to ensure the link between GHG inventory work and policy making and strategic planning in the field of climate change.

Currently each sector has two types of experts. One enterer and one checker. A National Committee on Climate Change is closely involved in providing recommendations to resolve identified data gaps. It is required as a priority to establish an inventory team, including a NIR Team leader and Quality Assurance Team, besides the sectoral experts. It is estimated that a minimum four full time experts are required.

The list of stakeholders is increasing as the NatComss are going for higher tiers and more details over time. In addition a software tool was established (not yet used) for the industry that gathers data from the industry installations on annual production, feedstock usage and production process details. However, it is required that data collection legislation is to be adopted to strengthen the process.





National statistics (particularly in the non-energy sector) improved as to become in line with the IPCC 2006 Guidelines.

For a high quality inventory report: A QA/QC plan is developed under the first BUR. Six direct gases and four indirect gases are included The priority is to implement the QA/QC plan and to develop the GHG inventory database for the period 2013 - 2014. And to introduce CRF to be in line with MMR requirements.

Data documentation is in worksheets of the IPCC software, including links to the appropriate data source. In the future the current practice should be implemented.

Best practices: Uncertainty management using the Monte Carlo approach, training materials have been developed and key sources analyses are conducted.

Turkey – National System for GHG inventories (and projections), Pelin Buzluk

Turkey is subject to information and communication commitments under articles 4.1 and 12 of the UNFCCC and shall establish its national system for GHG emissions estimation pursuant article 5 KP. Additionally, it shall adopt and implement national mitigation policies and measures according to article 4.2 UNFCCC.

An annual NIR of GHG emissions and removals estimations are made with the CRF; In addition National Communications are prepared every four years and BURs every two years.

The Ministry for Environment and Urbanization (MoEU) is responsible for climate change and air pollution policies and measures in Turkey. A Climate Change Department and an Air Management Department are established within its General Directorate of Environmental Management. However, given the cross cutting nature of climate change sector, in particular with regard to GHG estimation activities, several entities take part, with different roles and extent, to the development of the NIR, from planning to preparation until management. In such a context, TURKSTAT is the main responsible authority to coordinate and implement NI activities, being also the National Focal Point for the NIR in charge to submit the final yearly document to the UNFCCC Secretariat.

The Climate Change Coordination Board (CCAMCB) shall meet at least once a year and has the following relevant tasks:

- o Taking decisions and measures to fight against climate change and preventing air pollution; and
- Coordinate activities of setting up internal and external policies dealing with UNFCCC and UN-ECE CLRTP.

The Board can take any kind of measures and decisions provided they fall under its tasks and, as to their legal nature and force, it has a guidance role with a strong authority Members of the Board shall ensure that decisions are implemented in their own institutions/associations and report to the Board on the outcomes of the implementation

Up to date, 7 WGs have been established under CCAMCB and, according to their tasks, four of them are of particular relevance with NIS:

- WG1-Mitigation Coordination Agency MoEU- in particular in relation to:
 - 1. Contribution for development of Turkish NCs;



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- 2. "Setting up" policies and measures for GHG emissions mitigation and performed the related cost-analysis;
- 3. Working on GHG emissions trends including scenario without measures-with measures-with additional measures;
- WG2-Adaptation Coordination Agency MoEU- in particular in relation to::
 - 1. Contribution for development of Turkish NCs;
 - 2. "Setting up" policies and measures for adaptation;
- WG3-GHG Inventory Coordination Agency TURKSTAT- in particular in relation to::
 - 1. Calculating and evaluating national GHG emissions;
 - 2. Contributing to preparation of NIR and CRF to be submitted to UNFCCC;
- WG7-Air Management Coordination Agency MoEU- in particular in relation to::
 - 1. Improving air pollutant emissions inventory so to include country specific information;
 - 2. Collecting data on emissions by sectors;
 - 3. developing national EFs;

Activity	Institutions and Organisations
Collection of activity data	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC,
	MENR
Selection of methods, emission factors	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC,
	MENR
Sectorial emission calculations	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC,
	MENR
Key Source Analysis	TURKSTAT
Uncertainty evaluation	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC,
	MENR
Filling in CRF tables	MoFAL, MoFWA, MEU, MTMAC, MENR under
	coordination of TURKSTAT,
Preparation of National Inventory Report (NIR)	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC,
Preparation of National Inventory Report (NIR)	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR)	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR TURKSTAT
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR TURKSTAT TURKSTAT
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat Archiving	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR TURKSTAT TURKSTAT TURKSTAT, MoFAL, MoFWA, MEU, MTMAC,
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat Archiving	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR TURKSTAT TURKSTAT TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat Archiving	TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR TURKSTAT TURKSTAT TURKSTAT, MoFAL, MoFWA, MEU, MTMAC, MENR
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat Archiving	TURKSTAT, MOFAL, MENRMoFAL, MoFWA, MEU, MEU, MTMAC, MENRTURKSTAT, MOFAL, MENRMoFWA, MEU, MEU, MENA, MEU, MENA
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat Archiving	TURKSTAT, MENRMoFAL, MoFAL, MoFWA, MENRMEU, MTMAC, MEU, MEU, MEU, MTMAC, MENRTURKSTAT, MOFAL, MENRMoFWA, MEU, MEU, MTMAC, MENRWENRMOFAL, MOFAL, MOFWA, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU, MEU,
Preparation of National Inventory Report (NIR) Inventory outputs (CRF tables and NIR) Reporting to UNFCCC Secretariat Archiving	TURKSTAT,MoFAL,MoFWA,MEU,MTMAC,MENR </th

Despite the formal establishment of the NIR arrangements and the allocation to the line entities of the respective roles and duties, some significant cross-cutting (common to all NIR sectors) and sector-specific weaknesses, hindering the achievement of quality objectives, persist. For instance, the following challenging cross sectoral issues emerge:

(a) Gaps in key categories and trend analysis;



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- (b) Lack of TRANSPARENCY and COMPLETENESS in recalculations and lack of CONSISTENCY given differences in time series and inconsistencies in use of ADs, EFs and notation keys;
- (c) Gaps in QA/QC Plan, inconsistencies between NIR and CRF and no category specific QC procedures for all stages of NI development;
- (d) Lack of TRANSPARENCY in selected ADs, EFs, methodological choice as well as expert judgement and emission trends behaviour.

Proposed improvement recommendations for NIR planning include:

- Roles and responsibilities should be set and distributed among the existing institutional framework (to be enhanced and further regulated). The current Institutional system should be furthered and strengthened. Given its valuable institutional potential, tasks, authority and composition, the CCAMCB should be enhanced. Therefore, its establishment and powers should receive a more formal and high ranked legislative endorsement through a suitable legal basis providing stronger legal force than the current one.
- The concrete functioning of the CCAMCB WGs should be clarified and made more operational to bring effectiveness to the implementation of their duties. In parallel, the development of WGs working programmes should be ensured as a high priority.
- Interinstitutional coordination should be ensured, to achieve completeness and consistency of activities and results. Cooperation and coordination should be ensured both among CCAMCB WGs and line ministries. In particular, communication and dialogue between line entities should be promoted.
- A more active engagement of line entities involved in NI development should be promoted by awareness-raising and clearer, coordinated, more detailed distribution of tasks.
- Current staff should be increased to ensure a more sustainable distribution of workloads and a more systematic and consistent approach to NI activities, consistently with budget availability.
- Improvement recommendations for NIR preparation:
- Technical capacity building should be ensured through trainings. The increase of national knowhow and expertise would definitively contribute to quality objectives achievement.
- The recently adopted QA/QC Plan should be diligently implemented as a matter of priority to remedy to past/current gaps and failures.

Improvement recommendations for <u>NIR management</u> include:

- $\circ~$ A fully fledged documentation and archiving system should be established.
- QA/QC Plan should be implemented and, with regard to reporting and improving, utmost attention should be given to addressing the issues raised in the QA and by international reviewers.
- National focal point for reporting and communication duties towards EU Commission should be appointed by the law transposing MRR.
- National capacities to develop projections, costs and effects should be enhanced through appropriate training programmes.

Bosnia and Herzegovina – National System for GHG inventories (and projections) Enis Krečinić





National GHG inventories are funded by GEF and implemented by UNDP Hydro-meteorological Institutes (HMIs) of the entities are planned to submit entity GHG inventories in BiH. GHG inventory and working group which consist of two HMIs and it is part of MRV system.

At this moment we have team of individual experts which is arranged and funded by UNDP/GEF. Main problem is individual contracts for local consultants creating reports.

In the first period the aim is to improve institutional cooperation, to create a body on state level which will coordinate and lead the entity teams and to finalised the process of national GHG reporting. It is necessary to define institutions on entity level which will be included in national reporting system.

Strenthening the capacity of identifined institutions will require a regulatory framework or MOU betwen the instituons In creating an inventory of GHG is a very important segment ensuring security of supply data. In the last few years the Institute for statistics is the main provider of input data for the inventory.

Because of the complex national structure and differences in work of statistical institutions there is a need to ensure same methodology and format of data collection and distribution.

For Republic of Srpska the following issues have been highlighted:

- Result 1: Functional Institutional Arrangement: For this activity it will be necessary for at least five years due to lack of political will and financial funds. Entity level institutional arrangementt could be established in the next two years, but it depends on financial support.
- Result 2: Building a team. In the coming period in the Republic Hydro-meteorological Service will look for building a team of people to create an inventory. At this moment RHMI has three experts for GHG, with skills in energy and agriculture sector and management of GHG process. In the first period the aim is to improve the team with the hiring of at least one employee who will work on developing an inventory of the waste sector and LULUCF, and in that case there will be at least four people who will make an inventory of GHG in the Republic of Srpska. One expert within the RHMI will be included in QA/QC procedures. For this activity it will be necessary for at least five years due to lack of funds and the funds are necessary to complete the activity related to the annual salary of one employee.
- Result 3: Data Supply security: In creating an inventory of GHG is a very important segment ensuring security of supply data. In the Republic of Srpska, the last few years in providing input data for inventory, the Institute for statistics of RS is the main institution providing input data. Srpska is also working on activating the PRTR system, which will be one of the methods in the collection of individual data for big polluters. The HMI is responsible for PRTR (Off gazz.RS 79/15). The HMI has already established official cooperation (MoU) with some big polluters (such as Refinery in Brod, Thermal power plants Gacko and Ugljevik, etc.) and on that way we made the collection of input data for calculating emissions for large combustion plants in the RS. In addition an official MoU with Institute for Statistics Republic of Srpska, and Ministry of Transport and Communications has been prepared.

During 2016 is is planned to introduce secondary legislation according to MMR. Within that regulation an external group of experts will be established with different ministries, facilities, industry, statistics, universities who will be part of group for GHG. They will help in data supply, approval GHG processes and internal review of GHG. Regarding MMR there has been a we have TAIEX approved Workshop on EU Monitoring Mechanism Regulation 525/2013-MMR, 3-4 March 2016, Banja Luka, with the aim to introduce participants from different ministries, institutions, industries, etc. with UNFCCC obligations and MMR.



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https://aetherltd.sharepoint.com/sites/ECRAN-

 Result 4: Delivering a quality and effective GHG inventory. The Republic Hydro-meteorological Service (HMI) is already preparing a good inventory but with support by UNDP. The built inventory team will be able to create inventory for the Republic of Srpska. For that are necessary permanent training of employees who work on the development of inventory in order to develop better quality and more efficient inventory of GHG. It is very important to establish good and effective GHG team, data supply system, QA/QC, database and review of GHG. HMI works on CLRTAP inventory and will work on PRTR that is good way for validation and verification of data. One of the main conditions for good GHG inventory is finance of process that is not good in country, and should be improved in future.

Highlights Day 2 – 9 March 2016

Day 2 – 9 March 2016, Tirana, Albania (Hotel Doro City), National Systems and Tools and templates: – Justin Goodwin

The online tool for ECRAN National System was presented.

- Knowledge Sharing Portal <u>https://aetherltd.sharepoint.com/sites/ECRAN-</u> WG2/ layouts/15/start.aspx#/
- Country National Systems Portals <u>WG2/NSTemplate/default.aspx</u>



The tools for the national systems were presented and an outline was given of the documents:

- <u>Result 1:</u> Functioning Institutional Arrangements; and <u>Result 2:</u> a team has been built and trained to fill the identified institutional arrangements
 - Key experts on UNFCCC Roster of Experts via the National Focal Points
 - Attend available EIONET EEA meetings.



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- Management Framework template... (PDF), provided in the ECRAN MMR National System Tool
- The national system portal
- The ECRAN WG 2 forum
- Result 3: Data supply system developed
 - National System Portal stakeholders and datasets
 - Data supply agreement template (Word doc)
- Result 4: A quality and effective GHG inventory timeseries for year X to Y 2
 - QA/QC tool: Excel system.
 - QAQC Plan and activities: <u>https://aetherltd.sharepoint.com/sites/ECRAN-</u> <u>WG2/NSTemplate/default.aspx</u>
 - Databases & structures.
 - NIR guidance and template for method statements: <u>https://aetherltd.sharepoint.com/sites/ECRAN-</u> <u>WG2/NSTemplate/_layouts/15/start.aspx#/2015%20Methodology/Forms/AllItems.aspx#Inpl</u> <u>viewHash8acf66ea-cffd-4b2b-b61f-a2facf91f400</u>=
- Result 5: Increased awareness on advantages and opportunities for the country of a strong inventory framework. Infographics:
 - <u>http://www.aether-uk.com/jersey-greenhouse-gas-inventory</u>
 - <u>http://www.aether-uk.com/portfolio/infographics-2/da-ghg-emissions/devolved-administrations-greenhouse-gas-emissions/</u>
 - <u>http://www.aether-uk.com/portfolio/infographics-2/GHG-analysis/national-greenhouse-gas-inventory-analysis/</u>

Break out groups

Four break-out groups were formed to elaborate required activities to the pre-defined results. The following tasks were performed.

- Task 1: Add Activities for each of the 5 results.
- Task 2: Review results and update the indicator and information source used for the indicator associated with that result.

The results are visible in the ECRAN online ECRAN MMR national Systems tool as per <u>https://aetherltd.sharepoint.com/sites/ECRAN-</u>

WG2/ layouts/15/start.aspx#/Lists/Objectives%20and%20Results/Summary.aspx . In this link the filled in activities associated with each of the defined 5 results have been filled by the country break-out groups.

The below tables and graphs summarise the outcomes of the breakout groups. It is meant as a living document and may be adjusted over time following the homework provided for the next stage.

Number and distribution of identified activities under the five respective results







Level of Support required for defined activities



Status of defined activities associated with the five results







Completeness of Information



Follow up work

Beneficiaries are requested to deliver the following until the next workshop (in June 2016). Reference is made to <u>https://aetherltd.sharepoint.com/sites/ECRAN-WG2/_layouts/15/start.aspx#/</u>

- Identification in a list responding to this email the key contacts for ongoing work on the NS
 representing National Government, national focal point for the GHG inventory, Lead person
 in the co-ordinating organisation/s responsible for the technical co-ordination and QA/QC,
 Lead/key sectoral experts responsible for the sectoral estimates.
- Complete Objectives and Activities (with review from International Experts),
- Compile country Fiches for National Systems Development projects
- Complete "Country Methods" list.
- Implement some easy activities that do not need support. (International experts to track). Improve table of linked projects.

V. Evaluation





Reference is made to Annex IV for the detailed evaluation.

In the evaluation of the workshop **well over a two third majority** of participants indicated that their **expectations were fully met** in the areas of increased understanding of the requirements to establish national systems for GHG estimations, the identified priorities for short and long-term GHG inventory improvements, the elaboration of a country specific plan for improving the national system for GHG estimations.

Over 90% of the evaluation scores regarding the quality aspects of the workshop such as achieved objectives, overall quality, practical work, presentations, facilitators, obtained the marks 'excellent') to 'good'. The aspect on logistical arrangements had a significantly lower score than the other aspects. Almost 95% of all participants indicated that they found the workshop 'time well spent'.

My Expectations

- 1. Increased understanding of requirements for improving national systems for GHG estimations
- 2. Identified list of priorities for our country's short and long-term GHG inventory improvements
- 3. Country specific plan has been elaborated for improving the national system for GHG estimations
- 4. The training enhances our understanding of the EU Monitoring Mechanism Regulation in connection with reporting on GHG inventories



Aspect of Workshop

- 1. The workshop achieved the objectives set
- 2. The quality of the workshop was of a high standard
- 3. The content of the workshop was well suited to my level of understanding and experience
- 4. The practical work was relevant and informative
- 5. The workshop was interactive
- 6. Facilitators were well prepared and knowledgeable on the subject matter
- 7. The duration of this workshop was neither too long nor too short
- 8. The logistical arrangements (venue, refreshments, equipment) were satisfactory
- 9. Attending this workshop was time well spent















ANNEX I – Agenda

Tuesday 8 March 2016

Topic: National Systems for GHG estimation Chair and Co-Chair: Imre Csikós, Justin Goodwin						
Start	Finish	Торіс	Speaker	Sub topic/Content		
09:00	09:30	Registration				
09:00	09:15	Welcome and Introduction to WG2 NS workshop.	Imre Csikós, Moderator	 Programme outline and logistics 		
09:15	10.15	 Introductions (Round table) Overview of Homework and Guidance material 	Justin Goodwin, ECRAN			
10:15	10.45	2015 MMR reporting experience	Detelina Petrova, Bulgaria	Key experiences and lessons learned		
10.45	11.15	2015 MMR reporting experience	 Tatjana Obucina, Croatia Vlatka Palcic, Croatia Tatjana Antolic, Croatia 	Key experiences and lessons learned		
11:15	11:45	Coffee Break				
11:30	13:00	Presentation beneficiary 3 countries: (20 min each) plus 30 minutes discussion/questions = 90 min)	- Montenegro - Kosovo* - Serbia	 Plans and priorities for improvement to National systems. Short and long term goals and activities to get there. 		
13:00	14:30	Lunch Break & Administration				
14:30	16:00	Presentation beneficiary 3 countries: (20 min each) plus 30 minutes discussion/questions = 90 min)	 Croatia The former Yugoslav Republic of Macedonia Turkey 	 Plans and priorities for improvement to National systems. Short and long term goals and activities to get there. 		
16:00	16:15	Coffee Break				





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16:15	17:15	Presentation beneficiary 2 countries: (20 min each) plus 20 minutes discussion/questions = 60 min)	-	Bosnia and Herzegovina Albania	 Plans and priorities for improvement to National systems. Short and long term goals and activities to get there.
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Wednesday 9 March 2016

Topic:	Topic: National Systems for GHG estimation						
Chair and Co-Chair: Imre Csikós, Justin Goodwin							
Start	Finish	Торіс	Speaker	Sub topic/Content			
09:00	09:30	Summary of Day 1 & priorities for Workshop Discussion	Justin Goodwin	- Brief summary of day 1.			
09:30	10:30	National System tools and templates	Justin Goodwin with support from: Tinus Pulles Juanjo Rincon Suvi Monni Emma Salisbury Janka Szemesova Detelina Petrova	 Presentation of a series of tools and templates for National Systems. e.g. NS Portal QA/QC tools NS structure Job descriptions Data Supply Agreements Database structures NIR writing guidance Engaging Infographics 			
10:30	11:00	Coffee Break					
11:00	11:15	Breakout Group Introductions	Justin Goodwin	 Who, What, how long and where. 			
11:15	12.45	Breakout groups: Developing National System Development plans	Lead by: Tinus Pulles Juanjo Rincon Suvi Monni Supported by Emma Salisbury, Detelina Petrova, Tatjana Obucina,	 BOGs of 2-3 countries grouped together. Refine country plans for improvement of NS. Implement, if possible quick fixes using templates. 			
12:45	14:00	0 Lunch Break					







14:00	15:00	Continued Breakout Groups	Lead by: Tinus Pulles Juanjo Rincon Suvi Monni Supported by Emma Salisbury, Detelina Petrova,	 BOGs of 2-3 countries grouped together. Refine country plans for improvement of NS. Implement quick fixes if possible using templates.
				- Countries report back on
15:00	15:30	Reporting back	Country representatives	progress with their plans and activities.
15:30	15:45	Coffee Break		
15:45	16:15	Wrap-up & close	Justin Goodwin/ Imre Csikós	Conclusions and Next steps.







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ANNEX II – Participants





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ANNEX III - Workshop materials (under separate cover)

Additional Workshop materials including presentations and exercises, can be downloaded from:







ANNEX V – Evaluation

Statistical Information

1.1	Workshop Session	Regional Training Seminar on National Systems for GHG inventories – part 2
1.2	Facilitators name	As per agenda
1.3	Name and Surname of Participants (evaluators)	As per participants' list.

Your Expectations

Please indicate to what extent specific expectations were met, or not met:

My Expectations	My expectations were met			
	Fully	Partially	Not at all	
 Increased understanding of requirements for improving national systems for GHG estimations 	(78%)	 (22%)		
 Identified list of priorities for our country's short and long- term GHG inventory improvements 	 (72%)	 (28%)		
 Country specific plan has been elaborated for improving the national system for GHG estimations 	 (72%)	 (25%)	l 3%	
 The training enhances our understanding of the EU Monitoring Mechanism Regulation in connection with reporting on GHG inventories 	 (72%)	 (28%)		





Workshop and Presentation

Aspect of Workshop Excellent Good Average Poor Unacceptable Accepta ble 11111-11111-11111-1 11111 11111 11111 Т 1. The workshop achieved (44%) Ш (3%)the objectives set (53%) 2. The quality of the III (50%) (19%) (31%) workshop was of a high standard 11111 11111 11111 11111 1111 111 Т 3. The content of the (36%) (3%) workshop was well (61%) suited to my level of understanding and experience 11111 11111 11111 Ш 4. The practical work was (33%)33% (8%) relevant and informative (58%) Ш 5. The workshop was (28%) (8%) interactive (58%) Ш L 6. Facilitators were well 11111 11111 11111 1 (11%) (3%) prepared and (86%) knowledgeable on the subject matter 11111 11111 11 Ш 7. The duration of this (33%) (6%) (3%)workshop was neither (58%) too long nor too short Ш 11111 11111 1 Ш 8. The logistical (31%) (19%) (8%) (28%)(11%)arrangements (venue, refreshments, equipment) were satisfactory 11111 11111 11111 П 9. Attending this workshop (6%) (31%)was time well spent (64%)

Please rate the following statements in respect of this training module:

Comments and suggestions

I have the following comment and/or suggestions in addition to questions already answered:

Workshop Sessions:

- Appropriately organised;
- Professional;



This Project is funded by the European Union







More break between sessions) especially on the first day' during country reporting.

Facilitators:

- Good, well spoken, qualified, polite;
- Great but like to learn more from Tinus;
- Excellent;
- Qualitified, well spoken, polite, involved, eager to help;
- Justin is the best.
- Adequate;
- Very informative;
- Good, learned a lot, could be more interactive;
- Exchange sessions between countries, shre more information with each other.





