

Report of the  
THIRD FAO WORKSHOP ON STATISTICS  
FOR GREENHOUSE GAS EMISSIONS

02 - 03 December 2013, Casablanca, Morocco



Report of the  
THIRD FAO REGIONAL WORKSHOP ON STATISTICS FOR  
GREENHOUSE GAS EMISSIONS

*02 - 03 December 2013, Casablanca, Morocco*

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 2014

FAO; Climate, Energy and Tenure Division (NRC).

Report of the Third FAO Regional Workshop on statistics for greenhouse gas emissions. Casablanca, Morocco, 02-03 December 2014.

*FAO, Third FAO Regional Workshop on statistics for greenhouse gas emissions.* Rome, FAO. 2014. 29p. [Online]

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

© FAO, 2014

FAO encourages the use, reproduction and dissemination of material in this information product. Except where otherwise indicated, material may be copied, downloaded and printed for private study, research and teaching purposes, or for use in non-commercial products or services, provided that appropriate acknowledgement of FAO as the source and copyright holder is given and that FAO's endorsement of users' views, products or services is not implied in any way.

All requests for translation and adaptation rights, and for resale and other commercial use rights should be made via [www.fao.org/contact-us/licence-request](http://www.fao.org/contact-us/licence-request) or addressed to [copyright@fao.org](mailto:copyright@fao.org).

FAO information products are available on the FAO website ([www.fao.org/publications](http://www.fao.org/publications)) and can be purchased through [publications-sales@fao.org](mailto:publications-sales@fao.org).

## ABSTRACT

This report contains the main results of the Third FAO Regional Workshop on statistics for greenhouse gas emissions, Casablanca, Morocco, 02-03 December 2013. The objectives of the workshop were to: i) raise awareness of the importance of agricultural statistics for preparing national Greenhouse Gas (GHG) inventories and mitigation plans; ii) explore the need for increased capacity in view of Nationally Appropriate Mitigation Actions (NAMAs) and Biennial Update Reports (BURs) preparation and submission under the United Nations Conventions on Climate Change; and iii) facilitate communication and exchange of relevant knowledge on GHG data for agriculture, forestry and other land uses, identifying challenges, gaps, and opportunities for improving national data systems and analysis tools. The workshop identified improved coordination of national activities and actors as essential to meet commitments for the BURs. Key issues highlighted for progress included reliability, sustainability and comprehensiveness of data collection and analysis procedures. Countries identified the need for improved institutional arrangements as the most crucial and critical, underpinned by the need to provide human, technical and financial resources for development, implementation and maintenance of sound GHG inventories. A key role for FAO was identified and recommended, in order to ensure sustainable assistance to its Member Countries, to facilitate dissemination of technical material, and to further develop its capacity development activities based on country needs and in collaboration with relevant agencies.

# ACKNOWLEDGMENTS

This document reports on the Third FAO Regional Workshop on statistics for greenhouse gas emissions, Casablanca, Morocco, 02-03 December 2013. The workshop contributed to the capacity development activities of the Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation Potential in Agriculture (MAGHG) financed by Germany (GCP/GLO/286/GER) and Norway (GCP/GLO/325/NOR). Additional funding for the workshop was provided by the Global Strategy to Improve Agricultural and Rural Statistics (MTF/GLO/372/BMG). The final document has been prepared by Rocío D. Córdor-Golec from the Climate, Energy and Tenure Division (NRC) Division from FAO with the contribution of the MAGHG team, based on a report provided by the workshop facilitator, Ruben van der Laan from the International Association of Facilitators.

# CONTENTS

ABSTRACT .....	i
ACKNOWLEDGMENTS .....	ii
CONTENTS .....	iii
ACRONYMS.....	iv
BACKGROUND .....	1
OBJECTIVES OF THE WORKSHOP .....	2
WORKSHOP DESIGN .....	2
INITIAL SURVEY- KEY FINDINGS .....	3
WORKSHOP SESSIONS .....	3
KEY FINDINGS FROM WORKING GROUPS .....	5
FINAL SURVEY - KEY FINDINGS .....	9
CONCLUSIONS .....	10
FOLLOW-UP .....	11
APPENDIX .....	12
A. Agenda .....	13
B. List of participants and organizations .....	14
C. Role play .....	24
D. Initial survey .....	26
E. Final survey.....	28

# ACRONYMS

<b>AFOLU</b>	Agriculture, Forestry and Other Land Use
<b>AFCAS</b>	African Commission on Agricultural Statistics
<b>APCAS</b>	Asia and Pacific Commission on Agricultural Statistics
<b>BURs</b>	Biennial Update Reports
<b>CAR</b>	Central African Republic
<b>CAS</b>	Commission on Agricultural Statistics
<b>CD</b>	Capacity Development
<b>CIE</b>	<i>Comisión Interamericana de Educación</i>
<b>DRC</b>	Democratic Republic of Congo
<b>ESS</b>	Statistics Division, FAO
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GEF</b>	Global Environment Facility
<b>GHG</b>	Greenhouse Gas
<b>IICA</b>	<i>Instituto Interamericano de Cooperación para la Agricultura</i>
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>MAGHG</b>	Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation Potential in Agriculture, FAO
<b>MICCA</b>	Mitigation to Climate Change in Agriculture, FAO
<b>NAMAs</b>	Nationally Appropriate Mitigation Actions
<b>NRC</b>	Climate, Energy and Tenure Division, FAO
<b>NSO</b>	National Statistical Office
<b>OEA</b>	<i>Organización de los Estados Americanos</i>
<b>QA</b>	Quality Assessment
<b>QC</b>	Quality Control
<b>TFI</b>	Task Force on National Greenhouse Gas Inventories, IPCC
<b>UNFCCC</b>	United Nations Convention on Climate Change

## BACKGROUND

The overall objective of the FAO Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation Potential in Agriculture (MAGHG) project, a component of the MICCA Programme of the Climate, Energy and Tenure Division (NRC) in close collaboration with the FAO Statistics Divisions (ESS), is to provide guidance on the assessment of mitigation options for identification of national actions that are consistent with and enhance long term agricultural productivity, food security and environmental sustainability goals. The first fundamental need towards achievement of this objective is to support Member Countries, and in particular to developing countries, in improving their ability to identify, assess and report greenhouse gas (GHG) emissions from their agriculture, forestry and other land use activities, in a manner that is consistent with international climate agreements and national data development goals.

A key component of the project is capacity development (CD) for Member Countries on GHG emissions and mitigation potentials. The activities focus at the regional level, facilitating dialogue among relevant national agencies, while highlighting key challenges and opportunities to link effective mitigation planning to national priorities in adaptation, resilience, food security, and rural development. To this end, MAGHG holds its regional GHG workshops as events in conjunction with biennial FAO Regional Commission on Agricultural Statistics (CAS) Meetings. After each GHG workshop, results are presented and discussed by Member Countries at formal CAS meetings, seeking endorsement of FAO work in the area of GHG statistics and associated CD activities.

The Third FAO Regional workshop on statistics for greenhouse gas emissions was held in Morocco (Casablanca, 2-3 Dec. 2013) just prior to the meeting of the 23th session of the African Commission on Agricultural Statistics (AFCAS 23; 4-7 Dec. 2013 Rabat), which aimed to support CD activities on statistics for the African Region (see appendix A). The workshop brought together high-level staff of Ministries of Agriculture, National Statistical Agencies, and Census Bureaus, whose work is relevant for national GHG reporting under international climate policy processes, and Ministries responsible for national GHG reporting. Thirty three delegates from twenty-one African countries participated: Algeria, Central African Republic, DR Congo, Cote d'Ivoire, Egypt, Ethiopia, Gabon, Ghana, Kenya, Madagascar, Mali, Mauritania, Morocco, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia and Lesotho (see appendix B).



# OBJECTIVES OF THE WORKSHOP

The objectives of the workshop were the following:

- Raise awareness on the importance of agricultural statistics for preparing national greenhouse gas (GHG) inventories and for planning national mitigation actions that link long-term agricultural productivity, food security and sustainability.
- Explore the need for increased capacity in view of Nationally Appropriate Mitigation Action (NAMAs) preparation and new UNFCCC requirements to prepare and submit Biennial Update Reports (BURs), detailing national emissions and mitigation strategies by the end of 2014.
- Facilitate communication and exchange of relevant knowledge, at national and regional level, in the area of agricultural statistics, identifying challenges, gaps, and opportunities for improving national data systems and analysis tools.

## WORKSHOP DESIGN

The FAO team directed the preparation of the workshop in terms of content, strategies, and role-play. A professional facilitator supported FAO in the design of the methodology and workshop activities. The workshop was run both in English and French, with simultaneous translations English/French provided to participants. The workshop was the third of FAO MAGHG's regional workshops, which included:

- *Inception Workshop on Greenhouse Gas Emissions Statistics*, Oct. 2012, Da Lat, Viet Nam, held in conjunction with the 24<sup>th</sup> Asia and Pacific Commission on Agricultural Statistics.
- *Second FAO Workshop on Statistics on Greenhouse Gas Emissions*, Jun. 2013, Port of Spain, Trinidad and Tobago, held in conjunction with the 26<sup>th</sup> FAO-OEA/CIE-IICA Working Group on Agricultural and Livestock Statistics for Latin America and the Caribbean.

The workshop was run under a participatory and cooperative approach, combining brief presentations with practical activities. Key questions for each session informed discussion within dedicated working groups, using rotating working tables and a role-play activities.

Participants conducted a role-play simulation of a national GHG inventory case study (see Appendix C). In order for all to participate and better follow the role-play, the latter was run in two groups, organized by language, consisting of French and English speakers. This process promoted personal reflection and useful group dynamics. Initial and final surveys were conducted in order to gain insight from and elaborate expectations and lessons learned.

## INITIAL SURVEY- KEY FINDINGS

An initial survey assessed status of existing national processes, as well as knowledge, expectations and motivations of participants (see Appendix D).

Over eighty percent of the participants were found to be active in the field of climate change in their own countries; over fifty percent represented an institution responsible for compiling statistics to FAO through the FAOSTAT questionnaires; and over twenty percent were directly responsible for preparing national GHG emission estimations. More than one-third of the participants were not well acquainted with the concept of NAMA's, and more than two-thirds with the BURs. More than forty percent stated that they were not well informed of the linkages between agricultural statistics and the preparation of the national inventories for GHG.

The main motivations and expectations highlighted by participants before the workshop were, in order of importance:

- acquiring knowledge on GHG statistics;
- understanding ways to improve national data systems and how to use this back home; and
- exchanging information, share experiences and establishing connections and linkages with other participating countries in the region.

## WORKSHOP SESSIONS

Four main sessions were implemented during the two-day workshop (see also Appendix A):

### Day 1:

Session 1 focussed on the global and regional context of climate change, mitigation and adaptation strategies, and the linkages that exist between data collection, national GHG inventories and GHG reporting. Experiences from four African countries (Kenya, Ethiopia, Dem. Rep. Congo, Mali) were shared on implemented institutional arrangements needed to respond to the challenges of climate change, focusing on agricultural statistics as a basis for the preparation of GHG reports. A particular focus was devoted to the Biennial Update Reports (BURs), which are to be submitted by all non-Annex I countries to the United Nations Convention on Climate Change (UNFCCC) by Dec. 2014, including information on National GHG Inventories and identification of planned national mitigation options.

Session 2 highlighted the importance of agricultural and forestry statistics for the preparation of GHG reports, and the role of the IPCC Guidelines for the Agriculture, Forestry and Other Land Uses (AFOLU) sector. Two additional African countries (Ghana, South Africa) shared their experiences on creating institutional arrangements for delivering national GHG inventories for the AFOLU sector. Working groups and a plenary were organised in order to discuss the needs from the countries for implementing and/or improving their GHG reporting processes.

## Day 2:

Session 3 focused on the FAOSTAT Emission database and its potential for Member Countries alongside four dimensions: 1) as a help for global and regional assessments; 2) to fill data gaps and build capacity; 3) for QA/QC procedures and data analysis; and 4) for the development of indicators. A live demonstration of the FAOSTAT Emission database, working groups and a plenary were held. Additionally, the IPCC GHG software was also presented, with examples for estimating GHG emissions linked to the use of FAOSTAT. Capacity development activities of FAO, developed by MAGHG in support of GHG reporting, were also presented and discussed.

Session 4 was dedicated to in depth discussions. The main tools utilized to stimulate participation and ideas was a dedicated role-play exercise and rotating working tables. The aim of this session was to identify challenges, opportunities, recommendations and follow-up activities needed by Member Countries with FAO support.

FAO presentations were prepared by officers of the FAO NRC Division, Francesco N. Tubiello, Alessandro Ferrara, Simone Rossi and Rocío D. Córdor-Golec. During Session 1 key country presentations were given by Kenya (Mr. D.B. Adegü, Ministry of environment, Water & Natural Resources), Ethiopia (R.T. Tadese, Ministry of Environment and Forest), Democratic Republic of Congo (G. Zasy Ngisako, FAO DRC), and Mali (D. Doumbia, Agence de l'Environnement et du Développement Durable). For Session 2, country presentations were given by Ghana (M. Yakubu, Forestry Commission of Ghana) and South Africa (L.G. Manzini, Department of Environmental Affairs).

The Intergovernmental Panel on Climate Change (IPCC) - Task Force on National Greenhouse Gas Inventories (TFI) gave one presentation (Session 2) and conducted a live demonstration of the IPCC software (Session 3), in addition to providing feedback throughout the workshop based on their extensive experience.

Presentations of the workshop can be found at the following web site:

<http://www.fao.org/climatechange/micca/78840/en/>

# KEY FINDINGS FROM WORKING GROUPS

## Day 1 Session 1 (morning)

*How aware are you of the importance of GHG statistics for agriculture for your country? How well do you cooperate with other organisations within your country?*

Participants became aware of the linkages between agriculture activities and associated emissions, highlighting the importance of improving collection of statistics for GHG estimation. In most African countries, agriculture and forestry are the main contributors to GHG emissions and can play an important role towards their reduction. Some participants noted that their data collection system is not sustainable, transparent or reliable. Also, concerns were raised about the trade-off between reduction and mitigation of GHG emissions and economic development. Many countries are poised for economic growth, meaning a rise in GHG emissions. FAO responded that raising awareness on these issues and helping countries identify opportunities for solutions that reduce emissions while improving productivity was one of the main reasons for organizing the workshop.

*How do you perceive the capacity of your country to develop GHG emission reports and mitigation plans?*

From the country presentations it became clear that the sustainability of mitigation and adaptation projects is an issue throughout the African region. Many countries are dependent on incidental funding and consultants. Furthermore, there is a need to strengthen technical capacities to collect data and report GHG emissions in a systematic and continuous manner.

*How well do you cooperate with other organisations within your country?*

The majority of the participants stated that there is a good level of cooperation. However, this cooperation is not institutionalised, but is instead dependent upon personal relationships, indicating that there is still much progress to be made.

## Day 1 Session 2 (afternoon)

*How does your country conduct data collection of agricultural statistics and what are the challenges? Is there a national coordination system for the production of statistics? How can we build synergies between institutions responsible for data collection and ministries responsible for GHG emission reports?*

*After FAO and IPCC presentations:*

One participant noted that some FAO activity data do not necessarily represent the full set of those available within countries. FAO stressed that FAOSTAT and FRA data are directly reported by countries themselves. It was therefore concluded that it is the responsibility of the countries to

promote inter-agency coordination towards coherent national data processes. It was also noted that FAO data could be used whenever official national data are not available for GHG reporting purposes. IPCC provided additional information on the IPCC Software user manual, discussion forum, email guidance, and collaboration on capacity development with organizations such as FAO.

*After country presentations:*

Participants acknowledged and complimented the presenters for efforts by Ghana and South Africa to implement a national system for GHG emission reporting. A discussion was raised on the quality control and quality assurance (QA/QC) processes needed for GHG inventories, and on the sustainability and financial budget for implementing a national GHG system.

*Working group discussions:*

The majority of the countries have a data collection system in place, even though they are still in the early stages of GHG inventory development, including implementation of needed institutional arrangements. Different data collection methods are in use, from census to sample survey and satellite imagery. Participants noted that there are often inconsistencies between data that are collected at national level, and those needed for preparing GHG inventories. Participants also identified problems linked to the lack of formal arrangements for the collection of data from data holders.

Participants addressed key issues such as reliable data, sustainable collection systems, and comprehensive data. Countries identified the need for institutional arrangements as crucial and critical, and stressed the need to provide human, technical, and financial resources in order to achieve a sound GHG inventory. In some cases, even though structures and coordination among institutions are in place, they still lack a legal framework and an official policy framework.

Participants highlighted the need to support National Statistical Institutes and the Ministries responsible for Environment in the collection of information on climate change issues and the need to define standardized methodologies throughout relevant institutions.

## **Day 2 Session 3 (morning)**

*How do you evaluate the usefulness and applicability of the FAOSTAT emission database? How can you apply the 4 dimensions of use of this database in your country?*

The discussions during the working groups indicate that participants found the FAOSTAT database as a very useful tool. Countries highlighted its importance for enabling data comparison over time, and facilitate assessment of trends in other countries (global and regional). The database helps to identify areas and hotspots in emissions, facilitating the targeting of potential mitigation actions. For several countries that are at the beginning of their GHG inventory process, the FAOSTAT database could be very helpful as a starting point. For countries that already have a GHG inventory, the FAOSTAT database will help identify data gaps and enable QA/QC activities. The only dimension that

was viewed as less important was in relation to the development of indicators. FAO stressed that the FAOSTAT database is a tool in support of member countries' needs. The next phase would be to work together with countries in fulfilment of their CD needs. For this to work, it is necessary to coordinate efforts between FAO and the others relevant agencies that work in the field. FAO is already collaborating with the IPCC, and has begun collaborative work with UN-REDD and UNDP.

*In what way could CD activities by the FAO MAGHG team be of value?*

FAO invited the participants to think about the activities they would like to initiate within their countries and among countries in the region. DRC, CAR and Mali asked what specific support would be possible, as many activities were currently occurring in their countries. The next step would be to identify how FAO could cooperate at country level, and support towards successful reporting of BURs could be a practical example for this, but there are many options that can be applied according to country needs related to national mitigation planning. FAO described as an example its ongoing assistance to Ecuador in the area of GHG inventory processes for the AFOLU sector, where they are supporting a process in collaboration with UN-REDD, UNDP, and a wide range of relevant national agencies and ministries.

## **Day 2 Session 4 (afternoon)**

### ***Role-play***

This part of the workshop involved the simulation of situations that typically hinder collaborative work within and across agencies, with players asked to enact specific simulated roles linked to specific simulated agendas. During the role play, participants experienced first-hand, through a series of simulated situations, the difficulties that many of their colleagues may (or do) face in their actual work environments, due to lack of coordination between the various organisations that work on statistics for national GHG emissions. Most of the players re-enacted, through the simulation, the same type of obstacles that so often impede effective collaboration in the real world: they entrenched themselves into their assigned agendas, unwilling to build collaborations with other players. Through the simulated exercise, it became however clear that a compromise would only be possible if the common goals were elucidated and prioritized over the individual needs of the involved organisation. Equally importantly, in order to make real progress, it was crucial for all relevant organisations to be included in the process. The specific outcome of this exercise resulted in suggestions that the Ministry responsible for the Environment would need to show good leadership, especially in coordination of different actions. In this, National Statistical Offices were seen as the main technical partner. Key topics included: clarity of institutional roles, good leadership, compromise for a common goal, and participation of all stakeholders in the GHG inventory process.

The role-play was fundamental towards gaining valuable insight to debate four topical questions. Participants were asked to rotate in small groups from table to table. These groups were mixed in terms of language, with extra collaborative efforts needed in order to communicate effectively in both English and French.

## ***Rotating working tables***

Four key questions were proposed for discussion and all participants rotated through the different tables, identifying challenges and opportunities as follows:

### ***Challenges and bottlenecks to submit the BURs:***

- Institutional arrangements are not working properly;
- Availability and reliability of the data is poor;
- Lack of awareness and knowledge of the BURs;
- Lack of political support for the process;
- Lack of finance and technical resources.

Furthermore it was noted that the sustainability of the BURs process should be taken into consideration and that this was a clear bottleneck for success on the long term.

### ***Opportunities identified for progress:***

- BURs process helps formulation of future mitigation strategies;
- An opportunity to meet international requirements;
- Improvement of GHG compilation, in the long term;
- Assistance in capacity building;
- Assistance in sustainable development;
- Improved coordination of national activities and actors (stakeholders);
- Availability of data sources;
- Availability of GEF funds for the elaboration of BURs;
- Existence of FAOSTAT;
- Commitment of countries.

### ***Commitments and actions to be taken back to their own countries:***

- Formalized institutional arrangement for compilation of GHG inventories;
- Capacity development on GHG Inventory compilation;
- More focus on data collection to meet GHG inventory requirements (statistics);
- Actions on the QA/QC of collected data;
- Development and registry of NAMAs;
- Mobilization of national financial resources;
- Reinforcement of awareness of stakeholders;
- Evaluation of national data with FAOSTAT data;
- Definition of the roles and responsibilities;
- Development of a central database for GHG emissions;
- Increased institutional awareness by decision makers;

- Reporting of the outcomes of the workshop to top management.

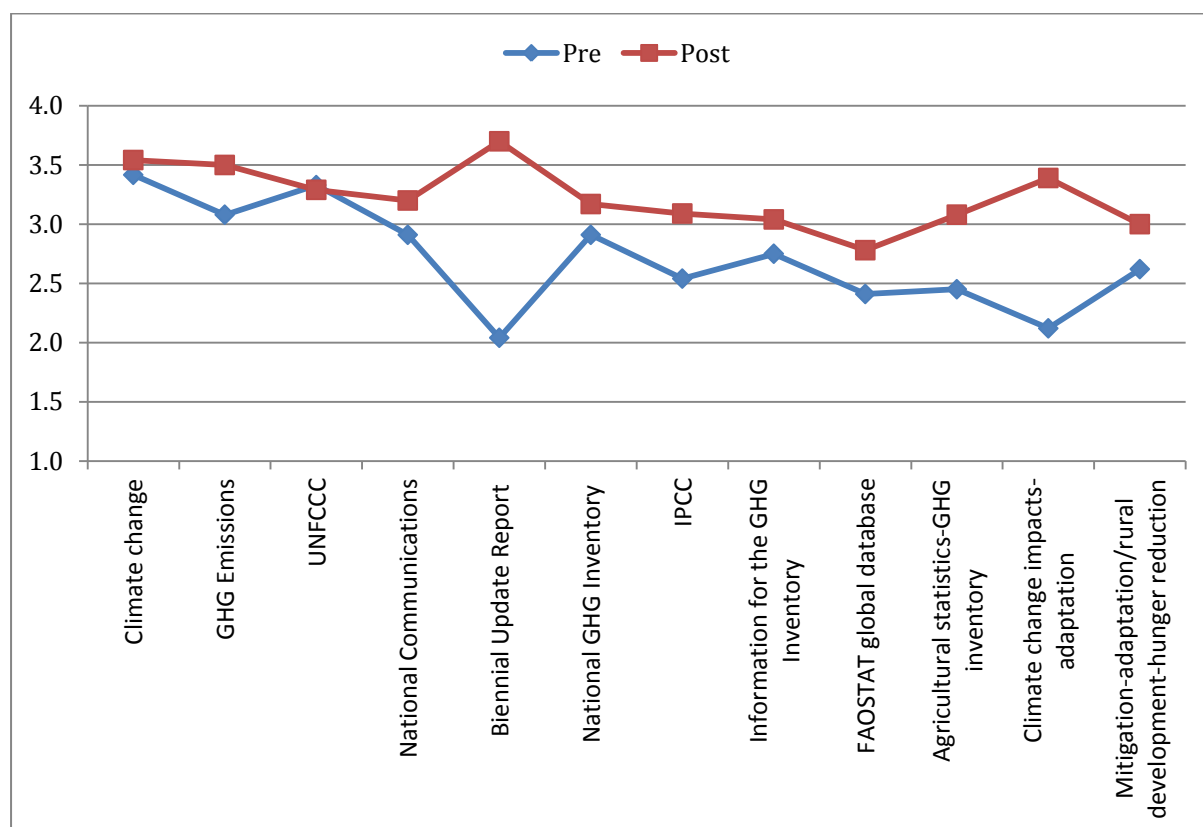
**Proposal and recommendations to FAO:**

- Assure the sustainability of the assistance towards the different countries;
- Support in the dissemination of the IPCC guidelines to the different countries;
- Design focused capacity building based on the needs of the participants;
- Collaborate with other agencies involved in GHG emission compilation;
- Assist countries in the initial compilation.

## FINAL SURVEY - KEY FINDINGS

A final participant survey was performed at the end of the workshop, to assess first-hand the fulfilment of participants' expectations, knowledge acquired and contents/instruments to be applied in their countries (Appendix E). Participants stated unequivocally that they thought the objectives of the workshop were fully met, and that the learning process was highly satisfactory.

As shown in the graph, participants acquired more familiarity on the following topics: BURs, climate change impacts and adaptation, and the link between agricultural statistics and the preparation of the national inventory of GHG emissions.





According to this survey, the main contents/instruments that participants would further use/explore once back in their countries were:

- FAOSTAT emission database and the IPCC guidelines;
- Importance of national statistics and the GHG inventory process;
- Understanding the concept and preparation of the NAMA.

## CONCLUSIONS

The workshop highlighted a strong need for enhanced action in Africa to help member countries meet new pressing commitments linked to the BURs under current UNFCCC requirements. This requires action at three different levels:

- The countries themselves,
- Between countries on a sub-regional and intra-country level
- FAO and other international organisations.

At the national level, decision makers should be aware of the international obligations and the opportunities that the BURs process may bring, in terms of identifying opportunities to improve national data systems for agriculture, identify hotspots for GHG mitigation consistent with other national development goals, while enhancing needed capacity for analysis, planning and policy-making. A key factor for success is internal cooperation among all stakeholders. This applies to the collection of data as well as agreement on standards for reporting.

Participants recognized and appreciated the effort made by FAO in the production of the FAOSTAT Emissions database as a useful platform for the development of national inventories of GHG emissions in the agriculture sector. The FAOSTAT database was seen as a useful tool for countries in the African region.

There was consensus that all relevant organisations must be involved in the process. This will also help sub-regional and international cooperation, as there will be clear and strong focal points. A possible first concrete action would be sharing the outcomes of the workshop with colleagues in home countries to elucidate the importance of agricultural statistics for GHG reporting.

On a sub-regional level, participants identified possibilities to fill data gaps with neighbouring countries. These exercises would also require agreements on standards for reporting. The FAOSTAT database was again seen as a useful tool for such activities.

With regards to the international context, the dissemination of tools such as the FAOSTAT database and IPCC software was seen as critical in order to facilitate compliance with national commitments, fostering development of the standardization process and capacity development. Support to countries from FAO and other international organisations was seen as critical to provide training and technical support needed to better meet international commitments. Participants advised FAO that

GHG capacity development workshops be organized periodically for the region, to enhance the impact and sustainability of the process.

Workshop findings were presented at the African Commission on Agricultural Statistics (AFCAS 23)<sup>1</sup>, where Member Countries endorsed FAO work on the FAOSTAT GHG emissions database , explicitly recognizing its value as a useful platform for analysis of mitigation data.

## **FOLLOW-UP**

Planned post-workshop activities will include:

- Share with all participants the final agenda and list of participants;
- Prepare and disseminate learning material from the workshop (English and French versions);
- Share with all participants the final report for review and comments;
- Follow-up with identified national counterparts to strengthen the FAOSTAT data reporting process;
- Follow-up with countries that are interested in receiving and or contributing to GHG capacity development efforts by FAO in the African Region.

---

<sup>1</sup> <http://www.fao.org/economic/ess/ess-events/afcas/afcas23/en/>

## APPENDIX

## A. Agenda

### THIRD FAO REGIONAL WORKSHOP ON STATISTICS FOR GREENHOUSE GAS EMISSIONS

*December 2-3, 2013 (Casablanca, Morocco)*

#### **Opening**

Agriculture and Climate Change: science and policy contexts, adaptation and mitigation challenges (F. Tubiello, FAO)

#### *Day 1*

9:00 – 12:30

The African context: emissions, projections and mitigation plans (A. Ferrara, FAO)  
Experience from countries: Kenya, Ethiopia, Dem. Rep. Congo, Mali

---

Importance of agricultural and forestry statistics for estimating GHG emissions (S. Rossi, FAO)

#### *Day 1*

2:00 - 5:00

IPCC Guidelines and methodologies for the Agriculture, Forestry and Other Land Use (N. Srivastava, IPCC)

Experience from countries: Ghana, South Africa

**Working groups and plenary.** Needs from the countries to implement the GHG reporting.

#### *Day 2*

9:00 - 12:30

The FAOSTAT Emissions database and its potential applications (F. Tubiello, FAO)

**Live demonstration** of the FAOSTAT Emissions database and IPCC software

**Working groups and plenary.** Dimensions, use and application of the FAOSTAT

Emissions database

Capacity Development activities of MAGHG (R. Córdor, FAO)

#### *Day 2*

2:00 - 5:00

**Role Play.** Solving problems towards improving national data systems and reporting.

**Working groups.** Challenges, opportunities, commitments and proposals towards climate mitigation in Africa. Reflections and way forward.

**Assessment and closure**

---

## B. List of participants and organizations

### ALGERIA

***Mr. Ismail MOSTEFA***

Sous Directeur des Statistiques  
Ministère de l'Energie e des Mines  
Tour A, Val d'Hydra, Ben Aknoun,  
BP 229, Alger, Algérie  
Code postal : 16028.  
Phone: 0662454600/ 021488369  
Fax: 021488139/021488106  
Email: [ismail.mosteфа@mem.gov.dz](mailto:ismail.mosteфа@mem.gov.dz)

### CENTRAL AFRICAN REPUBLIC

***Mr. Sylvain AZOUASSA***

Ingénieur Agronome option: Eaux et Forêts,  
Chef de Service  
Ministère des Eaux, Forêts,  
Chasses et Pêche  
B.P 830 Bangui (RCA)  
Phone: +236 75 20 66 03  
Email: [azouasylv@yahoo.fr](mailto:azouasylv@yahoo.fr)

***Mr. Parfait Maixent NALIBERT***

Chef de Service des Statistiques des Prix  
Institut Centrafricain des Statistiques et des  
Etudes Economiques et Sociales  
(ICASEES), Ministère du Plan  
Ministère du Plan BP696  
Bangui (RCA)  
Phone: +23675052939  
Fax: +23621619689  
Email: [nalibert@yahoo.fr](mailto:nalibert@yahoo.fr)

### CONGO, DEMOCRATIC REPUBLICOF

***Mr. Kavul ONESPHORE  
MUTSHAIL***

Chef des Travaux, Consultant National  
Inventaire des Gaz à Effet de Serre  
Phone: +243851545808  
Email: [kmutshail@yahoo.fr](mailto:kmutshail@yahoo.fr)

## COTE D'IVOIRE

### **Mr. Antoine Tano SERVAIS**

Analyste en Télédétection, SIG et  
Cartographie, Consultant sur les  
Inventaires des Gaz à effet de serre  
(secteur Utilisation des Terres, Changement  
d'Affectation des Terres et Foresterie)  
4 BP 1000 Abidjan 04  
Côte d'Ivoire  
Phone: +225 08 00 23 35 /+ 225 22 48 30  
30  
Email: [servtano@yahoo.fr](mailto:servtano@yahoo.fr)

### **Ms. Odette SIKA EPSE YOBO- TITIAHI**

Analyste Statisticienne –  
Economiste/Chargée d'Etudes  
01 BP V 55 ABIDJAN 01  
Côte d'Ivoire  
Phone: +225 05 45 20 05 / 09 16 48 46  
Fax: +225 20 21 63 27  
Email: [o\\_sika@yahoo.fr](mailto:o_sika@yahoo.fr)

## EGYPT, ARAB REPUBLIC

### **Mr. Mohamed ABDELMONEM**

Head of Vulnerability Division, Central  
Department of Climate Change  
Egyptian Environmental Affairs Agency 30  
Misr Helwan Elzerayee road, Maadi,  
Cairo, Egypt  
Email: [mabdall-ccu@hotmail.com](mailto:mabdall-ccu@hotmail.com)

### **Ms. Nadia Mahmoud MOHAMED EDRIS**

General Manager For environment  
Statistics  
Central Agency for Public Mobilization and  
Statistics (CAPMAS)  
3rd Salah Salim St, Nasr City, Cairo - Egypt  
Phone: 202-24024099  
Fax: 202-24024099

## ETHIOPIA

### **Mr. Robel TESFAYE TADESE**

Environmental Expert level I  
Ministry of Environment and Forest  
12760, Addis Ababa,  
Ethiopia  
Phone: +251911386887  
Email: [tesfayerobel@yahoo.com](mailto:tesfayerobel@yahoo.com)

### **Mr. Habekiristos Beyene HAILE**

Agriculture, Natural Resource &  
Environmental Statistics Directorate  
Central Statistical Agency  
P.O. Box 1143 : Central Statistical  
Agency, Addis Abeba,  
Ethiopia  
Phone: 251111569092 / +251911146178  
Email: [habekiristos@yahoo.com](mailto:habekiristos@yahoo.com) ;  
[habe\\_b@ethionet.et](mailto:habe_b@ethionet.et)

## GABON

### **Mr. Pierre Martian OBIANG**

Chargé d'Etudes à la Direction Générale  
de l'Environnement et de la Protection de  
la Nature et Assistant du coordonnateur  
des communications nationales sur les  
changements climatiques et les Rapports  
Biennaux  
Ministère de l'Economie, de l'Emploi du  
Développement Durable  
Bp: 3903 Libreville / Gabon  
Phone: + 241 06 24 86 33  
Email: [mathcoy@yahoo.fr](mailto:mathcoy@yahoo.fr)

### **Ms. Minette NTSAME ENGONGA**

Chargee d'etudes  
Direction General de la Statistique  
Bp: 2119 Libreville / Gabon  
Phone: +241 06 72 02 77  
Email: [minette.ntsame@yahoo.fr](mailto:minette.ntsame@yahoo.fr)

## **GHANA**

### ***Mr. Francis Korku DZAH***

Head, Agricultural & Environmental  
Statistics Section  
Ghana Statistical Service  
P. O. BOX GP 1098, ACCRA, GHANA  
Phone: +233242546810, +233206370354  
Email: [f.dzah2002@gmail.com](mailto:f.dzah2002@gmail.com)

### ***Mr. Mohammed YAKUBU***

Manager, GIS and Digital Mapping Forestry  
Commission  
Resources Management Support Centre,  
Box 1457, Kumasi, Ghana  
Phone: + 233-208112123  
Email: [myakubu89@yahoo.com](mailto:myakubu89@yahoo.com)

## **KENYA**

### ***Mr. David Buluku ADEGU***

Ag. Senior Asst. Director, Adaptation &  
Mitigation, GHG Inventory Coordinator  
Ministry of Environment, Water & Natural  
Resources, Climate Change Secretariat  
Periferico 5000 Insurgentes Cuicuilco  
P.O box 30126,-00100 Nairobi  
Phone: + 254721813102  
Email: [adegubuluku@gmail.com](mailto:adegubuluku@gmail.com)

### ***Mr. Patrick Musila MWANIKI***

Senior Manager, Agricultural Statistics  
National Bureau of Statistics  
Periferico 5000 Insurgentes Cuicuilco  
P.O box 30266 - 00100, Nairobi, Kenya  
Phone: +254-20-317583  
Fax : +254-20-315977  
Email: [pmwaniki@knbs.or.ke](mailto:pmwaniki@knbs.or.ke)



## LESOTHO

### ***Ms. Tsepiso THABANE***

Chief Statistician

Lesotho Bureau of Statistics

BOX 455 Lesotho

Phone: +266 22323852

Email: [t.thabane@bos.gov.ls](mailto:t.thabane@bos.gov.ls)

## MADAGASCAR

### ***Ms. Mialisoa Lalaina***

#### **RAZAFIMBELO**

Technicienne au sein de l'Autorité

Nationale Désignée pour le Mécanisme de

Développement Propre (MDP) de la

Direction Changement Climatique

Ministère de l'Environnement et Forêts

BP 571 Ampandrianomby Antananarivo

Madagascar

Phone: +261 34 05 622 04

Email: [mialisoa\\_lalaina@yahoo.fr](mailto:mialisoa_lalaina@yahoo.fr)

### ***Ms. Joceline Julie***

#### **SOLONITOMPOARINONY**

Chef de Service de la Statistique Agricole /

Direction du Suivi Evaluation et de la

Communication

Ministere de l'Agriculture

Batiment Ex Microhydraulique – Nanisana

– Antananarivo (101) Madagascar

Phone: +261 34 05 610 48

Email: [chef\\_statagri.dsec@agriculture.gov.mg](mailto:chef_statagri.dsec@agriculture.gov.mg);  
[updr.joc@blueline.mg](mailto:updr.joc@blueline.mg)

## MALI

### ***Mr. Drissa DOUMBIA***

Chef Section Surveillance  
Environnementale  
Agence de l'Environnement et du  
Développement Durable (AEDD)  
BP 2357 Bamako, Mali  
Phone: +22320231074  
Fax: + 22320235867  
Email: [drissd2@gmail.com](mailto:drissd2@gmail.com)

### ***Mr. Moussa CAMARA***

Ingénieur de la statistique / chargé de  
programme  
Ministère de l'Agriculture  
Bamako, Quartier : Djélibougou, rue : 240,  
porte : 146  
Phone: 77266282/66960506/20223224  
Fax: +20230425  
Email: [picamara@yahoo.fr](mailto:picamara@yahoo.fr)

## MAURITANIA

### ***Mr. Sidaty YOUBA***

Leader thématique de la Composante  
Inventaire des Gaz à effet de Serre à la  
troisième Communication Nationale de la  
Mauritanie. Enseignant chercheur à l'ENS  
Programme National CC  
Ecole Normale Supérieure de Nouakchott,  
BP : 990, Nouakchott, Mauritanie  
Phone: +222 22 09 81 43  
Fax: +222 45 25 31 72  
Email: [s31d37@yahoo.fr](mailto:s31d37@yahoo.fr)

## MOROCCO

### ***Ms. Sakina Kada***

Chef de service des publications générales  
Haut Commissariat Au Plan (Direction De  
La Statistique)  
1, Rue Kobros, Appt N°6 RABAT  
Phone: 0 661236260  
Fax : 0 537201736  
Email: [kadasakina@hotmail.fr](mailto:kadasakina@hotmail.fr)

## NIGERIA

### ***Mr. Andrew Osodi IWEGBU***

Assistant Chief Statistician  
National Bureau of Statistics  
National Bureau of Statistics, Abuja,  
Nigeria  
Phone: +23408038645568  
Email: [andyiwegbu@gmail.com](mailto:andyiwegbu@gmail.com)

### ***Mr. Simon Osilama IZUAGIE***

Statistician II  
National Bureau of Statistics  
Plot 762 Independence Avenue Central  
Business District P.M.B. 127 City Garki –  
Abuja  
Phone: 246059358766  
Email: [izuagiesimon@gmail.com](mailto:izuagiesimon@gmail.com)

## RWANDA

### ***Ms Svetlana GAIDASHOVA***

Senior Principal Research Fellow  
Rwanda Agriculture Board  
P.O.Box 5016, Kigali, Rwanda  
Phone: +25072 85 38 707  
Fax: +250 578 768  
Email: [gaidashova@yahoo.com](mailto:gaidashova@yahoo.com)

## SENEGAL

### ***Mr. Papa Lamine DIOUF***

Assistant technique Direction Environnement  
Ministère Environnement  
BP:4055  
Phone: 221779051798  
Email: [Pipodiouf2@yahoo.fr](mailto:Pipodiouf2@yahoo.fr)

## SOUTH AFRICA

### ***Ms. Lungile Glodine MANZINI***

Control Environmental Officer  
Department of Environmental Affairs  
Private Bag X447, Pretoria, 0001  
Phone: + 2712 395 1624  
Email: [Imanzini@environment.gov.za](mailto:Imanzini@environment.gov.za)

## TANZANIA

### ***Mr. Constantine Mtika SHAYO***

Principal Environment Research Officer  
P.O. Box 5380  
Phone: +255 754 403356  
Fax: +255 22 2125297  
Email: [cmshayo@yahoo.com](mailto:cmshayo@yahoo.com)

### ***Mr. Didas Ladislaus NISASI TABWENE***

Principal Agronomist/Statistician  
Ministry of Agriculture, Food Security &  
Cooperatives.  
255 022 9192, Dar es Salaam, Tanzania.  
Phone: +255 022 2862480/1  
Fax: + 255 022 2862077  
Email: [dtabwene@hotmail.com](mailto:dtabwene@hotmail.com)

## UGANDA

### ***Mr. Henry BBOSSA***

Climate Change Officer-Mitigation and  
Market Mechanism  
Ministry of Water and Environment  
136,MUKONO-UGANDA  
Phone: 256775823482  
Email: [henrybbossa@yahoo.com](mailto:henrybbossa@yahoo.com)

**Mr. Emmanuel MENYHA**

Senior Statistician  
Uganda Bureau of Statistics  
P.O BOX 7186 KAMPALA, UGANDA  
Phone: 256775823482  
Email: [emenyha@gmail.com](mailto:emenyha@gmail.com)

**ZAMBIA**

**Mr. Daniel DAKA**

Deputy Director-Agriculture and  
Environment Statistics  
Central Statistical Office  
P.O. BOX 31908, Lusaka, Zambia  
Fax: +260-253468  
Email: [mudaala@yahoo.com](mailto:mudaala@yahoo.com)

**ORGANIZATIONS**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
(FAO)**

**Mrs. Rocio Dánica CONDOR GOLEC**

Viale Terme di Caracalla 1,  
00153 Rome, Italy  
Phone: +39 06 57054942  
Email: [rocio.condor@fao.org](mailto:rocio.condor@fao.org)

**Mr. Alessandro FERRARA**

Viale Terme di Caracalla 1,  
00153 Rome, Italy  
Phone: +39 06 57052169  
Email: [alessandro.ferrara@fao.org](mailto:alessandro.ferrara@fao.org)

**Mr. Sebastian GREY**

FAO Subregional Office for Eastern Africa (FAOSFE)  
Phone: +251 11 647 8888  
Email: [Sebastian.Grey@fao.org](mailto:Sebastian.Grey@fao.org)

**Mr. Simone ROSSI**

Viale Terme di Caracalla 1,  
00153 Rome, Italy  
Phone: +39 06 57052169  
Email: [simone.rossi@fao.org](mailto:simone.rossi@fao.org)

**Mr. Francesco Nicola TUBIELLO**

Viale Terme di Caracalla 1,  
00153 Rome, Italy  
Phone: +39 06 57052169  
Email: [francesco.tubiello@fao.org](mailto:francesco.tubiello@fao.org)

**Mr. Ruben VAN DER LAAN**

Facilitator  
Email: [info@rubenvanderlaan.com](mailto:info@rubenvanderlaan.com)

**Mr. Germain ZASY NGISAKO**

FAO Representation in Democratic Republic of Congo  
936, Boulevard du 30 juin, Gombe, Kinshasa 1,  
République Démocratique du Congo.  
Phone: +243 81 151 8623  
Email: [FAO-CD@fao.org/zasygermain@gmail.com](mailto:FAO-CD@fao.org/zasygermain@gmail.com)

**INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC)**

**Sra. Maya FUKUDA**

IPCC/TFI  
Email: [nggip-tsu@iges.or.jp](mailto:nggip-tsu@iges.or.jp)

**Sra. Baasansuren JAMSRANJAV**

IPCC/TFI  
Email: [nggip-tsu@iges.or.jp](mailto:nggip-tsu@iges.or.jp)

**Sr. Nalin SRIVASTAVA**

IPCC/TFI  
Email: [nggip-tsu@iges.or.jp](mailto:nggip-tsu@iges.or.jp)

**Sr. Kiyoto TANABE**

IPCC/TFI  
Email: [nggip-tsu@iges.or.jp](mailto:nggip-tsu@iges.or.jp)

## C. Role play

### *Description of the Situation*

The Blue country, like most of the countries in the region, has adopted the United Nations Framework Convention on Climate Change (UNFCCC) in order to implement climate change mitigation and adaptation strategies. In 2002, the Blue country submitted their National Emissions Inventory of Greenhouse Gases (GHGs). Agriculture, particularly livestock, proved to be the largest source of national emissions. The country is particularly vulnerable to the impacts of climate change, thus they have focused their efforts on adaptation to better moderate damage, especially in agriculture. In 2003, the Permanent Commission for Climate Change was formed under the ministry of Environment in the Blue government to coordinate actions between government entities, and to develop national policies for mitigation and adaptation to climate change. In 2007, they designed a Blue Strategy on Climate Change (BSCC), and in 2013, they will implement a Special Climate Change Program under the Blue National Development Plan for 2014-2020. The Standing Committee on Climate Change would like to submit data on agriculture sector emissions to the UNFCCC every two years, as required by the new UNFCCC mandate for Biennial Update Reports (BURs). This process will involve institutions such as university departments, the Ministry of Environment, and the Ministry of Agriculture, among others. The university is directly involved in the preparation, collection, and analysis of statistics, and is using information from the Ministry of Agriculture (MAG). The official annual data on national agricultural activities are collected and analyzed by the Blue Institute of National Agricultural Statistics (BINAS), and officially reported to FAO for integration into the FAOSTAT database. There are many discrepancies between the official statistics published by the BINAS and those published by the MAG, especially those related to livestock. When information on GHG emissions in agriculture were published by FAOSTAT using official data sent by the BINAS, it became apparent that the Blue country had a national data coordination problem.

It is critical to find a solution in anticipation of the upcoming BUR requirements in 2014. For this reason, the BINAS has convened a National Commission with various stakeholders in order to define actions and next steps to respond to the requirements. FAO will be invited as a neutral participant and to provide the global agriculture *database*.

### *Roles*

**National Statistical Institutes:** Your goal is to reach a solution on the issue of statistical data collection. You would like to have a greater role in providing national emissions estimates. We must understand that you are the institution responsible for the collection of data and production of official national statistics, and for sending information to international organizations, including FAO. Recognizing the need to obtain information for different purposes, it will still be necessary to coordinate with the Ministry of Agriculture to more thoroughly and accurately collect and publish official national data. This coordination between ministries will be necessary to ensure the publication of a consistent national data set.

**Ministry of Environment (Standing Committee on Climate Change):** The Ministry of Environment's main interest is to continue conducting research with national universities, as it is their commission to send the updated data to the UNFCCC. The Minister is accompanied by a representative of the country's most

prestigious university. You would like to coordinate efforts toward developing national programs to increase the awareness of the population. You also wish to compile an updated National Inventory of GHG emissions, which has not been submitted since 2002. You are interested in using FAO data as a reference and as a benchmarking tool in anticipation of the BURs.

**Ministry of Agriculture:** You see this opportunity to participate in the National Commission as beneficial, since the National Commission can focus attention on the need for both mitigation and adaptation in agricultural production and improved food security. You are attending with your team, and will lead a presentation on possible scenarios for immediate strategic decisions to address this national emergency. You are well educated on data and research that has been conducted in your country on mitigation and adaptation to climate change in the agricultural sector. But you are not aware of the FAOSTAT emissions database and the decision adopted by the UNFCCC regarding BURs.

**Agricultural Producers:** Your biggest interest is the potential increase in agricultural loans and a decline in their interest rates. Your main concern is the construction of dams and irrigation systems to address the issue of increased crop water needs related to changes in temperature.

**FAO:** FAO's interest is to promote a national process to achieve a coordinated national statistical system between institutions. Also, FAO would like the FAOSTAT emissions database to be recognized by its member countries as a valid tool to analyze and compare agricultural statistics and GHG emissions.

**University:** The University's interest is to maintain relationships with the Ministry of Environment. It also seeks to ensure funding to continue its research. This body is recognized nationally as a dynamic organization in preparing robust data on climate change, including national inventories of GHG emissions. Compared with the bureaucracy that exists in the Blue country's ministries, the university promotes a modern analysis of national data.



## D. Initial survey

### Third FAO regional workshop on statistics for greenhouse gas emissions

Welcome!

Dear Participant,

We look forward to seeing you at the Third FAO Regional Workshop on Statistics for Greenhouse Gas Emissions, 2-3 December 2013, Casablanca, Morocco. We ask you to please complete the following questionnaire so that we may better identify the main issues related to GHG statistics in your country, including institutional, methodological, and technical gaps. The information gathered will be used to modify the workshop so that we may more effectively respond to your needs, target particular areas of interest, and identify the potential for collaboration.

The survey will take approximately 10 minutes and is divided into three sections:

1. Data and Participant Expectations
2. Knowledge on Climate Change
3. Information regarding the situation in your country

Thank you in advance for your cooperation.

The MAGHG Team

**Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation in Agriculture**

### Participant data and expectations

1) Name(s)

2) Last Name(s)

3) Institution

4) Country

5) Are you or your institution involved in climate change activities in your country?

( ) Yes, please specify what kind of activity \_\_\_\_\_ (\*); ( ) No

6) What motivates you to attend the Third FAO Regional Workshop on Statistics for Greenhouse Gas Emissions? (\*)

7) The workshop will have simultaneous translation in English and French. However, we would like to know if you have knowledge of: ( ) English, ( ) French, ( ) Both English and French

Knowledge on Climate Change

8) What is your understanding of the issues that will be addressed in the Third FAO Regional Workshop on Statistics for Greenhouse Gas Emissions? (\*) Response required

	I don't know	I am learning	I have some knowledge	I know and apply my knowledge regularly
Climate Change				
Emissions of greenhouse gases				
United Nations Framework Convention on Climate Change (UNFCCC)				
National Communications to the UNFCCC				
Biennial Update Reports (BURs) to the UNFCCC				
National Inventory of GHG emissions				
Intergovernmental Panel on Climate Change (IPCC)				
Types of information necessary to prepare the national GHG inventory				
The FAOSTAT Global Database (+): <a href="http://faostat.fao.org/">http://faostat.fao.org/</a>				
Link between agricultural statistics and the preparation of the national inventory of GHG emissions				
Climate change impacts and adaptation				
Synergies between mitigation and adaptation in agriculture, and their importance in strengthening rural development and hunger reduction				

(+) direct link in English [http://faostat3.fao.org/faostat-gateway/go/to/download/G1/\\*E](http://faostat3.fao.org/faostat-gateway/go/to/download/G1/*E) and in French [http://faostat3.fao.org/faostat-gateway/go/to/download/G1/\\*F](http://faostat3.fao.org/faostat-gateway/go/to/download/G1/*F)

## Information on the situation in your country

9) Do you already cooperate with agencies on one of the aforementioned issues in question 8? If so, with whom and in what way? ( ) Yes; ( ) No ;(\*)

10) Do you know if your country has developed a national plan for mitigation of GHG emissions for the agriculture and/or forestry sectors? ( ) Yes; ( ) No

11) Do you know if your country has an institution that is responsible for collecting agricultural statistics? ( ) Yes; ( ) No

12) Does your institution provide information to FAO through FAOSTAT questionnaires? ( ) Yes; ( ) No

13) Do you know whether the process of preparation and reporting of GHG emissions to the UNFCCC is institutionalized in your country? ( ) Yes; ( ) No

14) Is your institution directly responsible for the estimation of GHG emissions? ( ) Yes; ( ) No; ( ) I don't know

15) In your view, what are the main institutional and national gaps regarding agricultural statistics and/or GHG emissions? (\*)

(\*) *Response required*

Thank you very much!

Thank you for completing our survey. Your responses are very important to us.

If you want to learn more about our project, please visit our website:

[www.fao.org/climatechange/micca/ghg/en/](http://www.fao.org/climatechange/micca/ghg/en/) (English)

[www.fao.org/climatechange/micca/ghg/fr/](http://www.fao.org/climatechange/micca/ghg/fr/) (French)

We look forward to seeing you in Casablanca!

The MAGHG Team

Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation in Agriculture

## E. Final survey

### Third FAO regional workshop on statistics for greenhouse gas emissions

This assessment will allow us to learn what we have achieved and how we can improve future workshops. We request your input on the topics below.

#### Workshop objectives and content

1. On a scale of 1 to 5 (with 1 being the lowest and 5 being the highest score), mark an X in the box that corresponds with your assessment of the following points:

1	2	3	4	5
Deficient	Fair	Good	Very Good	Excellent

	1	2	3	4	5
Meeting expectations					
Addressing your areas and topics of interest					
Participation in working groups and plenary					
Integration and group activities					
Utility of workshop in promoting the reporting of GHGs					
How were the meeting objectives achieved for you?					
<i>Workshop contributed o my understanding of the importance of statistics for reporting of GHG</i>					
<i>Workshop Increased my comprehension on how to prepare the BUR &amp; NAMA's</i>					
<i>Workshop Increased my international network and support</i>					

2. From what you have learned here, please indicate the concepts or tools that you will now apply.
3. How do you evaluate the usefulness and applicability of the FAOSTAT Emissions database?
4. What actions are you ready to take when you return to your country?
5. In general, how would you rate this workshop? Please tell us how we can improve.

1	2	3	4	5
Deficient	Fair	Good	Very Good	Excellent

6. Other comments

Thank you! We learn together.

## Closing questionnaire Third FAO regional workshop on statistics for greenhouse gas emissions

Date \_\_\_/\_\_\_/\_\_\_

### ***I. Participant identification data***

Name(s) and Surname(s); Institution (Country)

### ***II. Knowledge on climate change***

Put an "X" indicating the degree of knowledge you have obtained on the issues that have been presented at the workshop:

What is your understanding of the issues of the Third FAO Regional Workshop on Statistics for Greenhouse Gas Emissions ?	I don't know	I am learning	I have some knowledge	I know and apply my knowledge regularly
Climate Change				
Emissions of greenhouse gases				
United Nations Framework Convention on Climate Change (UNFCCC)				
National Communications to the UNFCCC				
Biennial Update Reports (BURs) to the UNFCCC				
National Inventory of GHG emissions				
Intergovernmental Panel on Climate Change (IPCC)				
Types of information necessary to prepare the national GHG inventory				
The FAOSTAT Global Database (+): <a href="http://faostat.fao.org/">http://faostat.fao.org/</a>				
Link between agricultural statistics and the preparation of the national inventory of GHG emissions				
Climate change impacts and adaptation				
Synergies between mitigation and adaptation in agriculture, and their importance in strengthening rural development and hunger reduction				

(+) direct link in English [http://faostat3.fao.org/faostat-gateway/go/to/download/G1/\\*/E](http://faostat3.fao.org/faostat-gateway/go/to/download/G1/*/E) and in French [http://faostat3.fao.org/faostat-gateway/go/to/download/G1/\\*/F](http://faostat3.fao.org/faostat-gateway/go/to/download/G1/*/F)

