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Enhancing countries capacity for United Nations Framework Convention on Climate Change reporting processes for the Agriculture, Forestry and Other Land Use sector: Uruguay

1. Background

Uruguay has submitted three national communications (NCs 1997, 2004, 2010) to the United Nations Framework Convention on Climate Change (UNFCCC), compiled according to IPCC 1996 Revised Guidelines and Good Practice Guidance (IPCC, 1997; 2000 and 2003) and it is about to present its first Biennial Update Report (BUR) for the year 2010 and initiate the process for preparing the fourth National communication for the period 1990-2010, which will be presented to the UNFCCC during the COP 21 in Paris.

It was among the fifteen countries attending the *FAO Mesoamerican Workshop for Emission Inventories and Mitigation Plans in Agriculture, Land Use, Changes in Land Use and Forestry*, held on 21-23 July 2014 in San Jose, Costa Rica organized by the Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation Potential in Agriculture (MAGHG) project.

Uruguay expressed interest in receiving support from FAO to improve their capacity in assessing emissions for the Agriculture and Land Use, Land Use Change and Forestry (LULUCF) sectors.

In addition, Uruguay identified key needed support activities for their national BUR processes, and a draft roadmap for proposed collaboration with FAO. A full proposal and a workplan were designed with a particular focus on a series of hands-on activities using the FAOSTAT Emissions database and associated tools, in support of the submission of the first BUR.

2. Activities implemented and findings

FAO provided support on the following topics identified by national experts and based on country needs:

1. Strengthening of the institutional set-up;
2. Familiarization with FAOSTAT Emissions database and its features (Download, Browse, and Compare components);
3. Familiarization with FAOSTAT Emissions Analysis Tools (Regional overview, QA/QC and verification, Indicators and Geo-referenced data);
4. Dialogue on the status of National Communications (NCs) and BUR.

2.1 Strengthen the institutional set-up

The identification of key national institutions was a process already initiated during the preparatory phase of the Mesoamerican workshop. Uruguay provides an excellent model in the context of the institutional set-up. At the workshop, three national institutions made a joint presentation illustrating progress on their NCs and statistical processes, and highlighting challenges and opportunities.

The relevant national institutions involved are:

- ✓ Ministry of Environment (*Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente*), which is the UNFCCC focal point in charge of coordinating the NCs and BUR

- ✓ The Climate Change Unit of the Ministry of Agriculture (*Ministerio de Ganadería, Agricultura y Pesca*), which provides technical support on agricultural and land-related issues for climate change, including the compilation of the GHG inventory for the Agriculture and LULUCF sectors.
- ✓ The Statistical Unit (Dirección de *Estadísticas Agropecuarias*) of the Ministry of Agriculture, which is in charge of the collection of official agricultural statistics and information on activity data required for GHG emissions accounting.

FAO supported the well-advanced institutional set-up by gathering all the institutions in several meetings to brief them on GHG emissions and analysis tools. During these meetings, the institutions had the opportunity to discuss several issues in an open dialogue, improving their communication and strengthening their collaboration.

2.2 Familiarization with FAOSTAT Emissions database and its features

The FAOSTAT Emissions database provides a coherent and internationally neutral data platform, useful for member countries to identify critical statistical data inconsistencies and gaps. It consists of two domain groups, namely Emissions – Agriculture and Emissions – Land use, containing respectively the emissions from the reporting categories of the Agriculture and LULUCF sector.

The aim of the dedicated walkthrough session on the FAOSTAT Emissions database was to enable national experts to learn more about:

- ✓ FAOSTAT data collection;
- ✓ FAOSTAT as a source of activity data for estimating GHG emissions;
- ✓ features available for browsing and comparing data from different countries, among categories and domains;
- ✓ different options for downloading data and their metadata;
- ✓ methodologies used for estimating GHG emissions;
- ✓ GHG emissions projections.

FAO took this chance to inform the country about the collection, compilation and dissemination processes of statistics in FAO. Indeed, FAOSTAT contains data from official national statistics that Member countries communicate to FAO, typically via questionnaires. This process results in an internationally approved, comprehensive data platform covering key information on inputs, production, costs and trade, for a large range of agriculture and forestry products worldwide.

Country experts requested more specific information on the source and methodology for particular activity data, like the nutrient consumption data of synthetic fertilizers. Data are in FAOSTAT in the Fertilizers domain (for the years 2002 to present) and Fertilizers Archive domain (for the years 1961-2001) under the group domain Inputs. The experts were guided through the corresponding metadata and provided with detailed information on the methodologies.

More information was provided on the projections figures of emissions from some animal categories and crops for the year 2030 and 2050. The projections were computed with respect to a baseline, defined as the 2005-2007 average of the corresponding FAOSTAT activity data, and by applying percentage growth rates from FAO perspective

study. This information was considered very useful by the participants for their preparation of the first INDC of Uruguay.

During the live walkthrough session, the country had the opportunity to identify inconsistencies in some livestock data, namely the number of milking cows. It was clarified that in FAOSTAT this livestock category refers to the animals that have been milked during the year.

2.3 Familiarization with AFOLU Emissions Analysis Tools

A dedicated training session was provided on the Agriculture, Forestry, and Other Land Use (AFOLU) Emissions Analysis Tools to familiarize Uruguay's experts with these tools. The following suite of tools developed by FAO was demonstrated:

a) Regional Overview: it gives users an overview of emissions by region, along with the option to compare data among countries;
b) Quality Assurance, Quality Control (QA/QC) and Verification: it allows users to compare the data reported by country to the UNFCCC in National Communications with the FAOSTAT Emissions database;
c) Indicators: it allows users to analyze emissions indicators, expressed as carbon intensity per unit product of a given commodity, against productivity at country and regional level. Using information based on FAOSTAT data, this tool provides a detailed level of analysis, while facilitating country and regional-level comparisons;
d) Geo-referenced data: it allows users to access and examine global georeferenced data used to estimate emissions of specific agriculture and land use categories in the FAOSTAT Emissions database. The data are available for download at country level.

National experts recognized the potential of the QA-QC and Verification tool in accomplishing the suggested IPCC good practices on QA/QC in the development of national GHG inventory, and in facilitating the identification of data gaps. Through usage of the tool, experts noticed that Uruguay`s emissions time series in national communications is available only for the aggregated agriculture value (years 1990, 1994, 1998, 2000, 2002 and 2004), while data on disaggregated categories are publicly available only for 2004. They expressed their intention to expand the time series to all categories.

The geo-referenced data tool was of interest to the experts because they glimpsed a possible benefit in estimating emissions from small burned areas. They learned that the spatial resolution currently offered is 30 km, but that in the near future it will increase to 1km.

The country has offered to test these tools and to provide feedback, as well as to share their experience with other countries.

2.4 Dialogue on status of BUR and NCs

During the third session, Uruguay updated FAO staff on their progress in the national GHG Inventory process, especially regarding the BUR, and the related problems and gaps that they faced with BUR/NC in the AFOLU sector.

Uruguay informed FAO of the plan to complete its BUR in 2015 for the year 2010, which will include recalculated emission estimates of previous years following the introduction of an improved and more transparent methodology, including QA/QC

procedures. Inconsistencies with default emission factors and activity data, as well as errors in the previous calculations (on the numbers of key categories such as dairy and non-dairy cattle that were spotted in previous inventories) were noted in historical years and will be fixed.

A plan is also in place to submit the Intended Nationally Determined Contribution (INDC) and the 4th national communication.

3. Results and Next Steps

The activities carried out with Uruguay were extremely fruitful, and laid the foundation for potential subsequent collaboration with the country.

Uruguay is making use of the FAOSTAT Emissions database for the preparation of the BUR and the fourth National Communication, and will introduce the projections data of FAOSTAT in the on-going preparation of the first INDC of Uruguay.

Uruguay would like that their inventory submissions adhere to the principles of transparency, accuracy, consistency, comparability and completeness (TACCC). With this objective, Uruguay is planning to incorporate quality control (QC) measures of their GHG estimations to check accuracy on data acquisition and calculation through the issuance of manuals and protocols. In addition, the country is planning to develop a quality assurance (QA) system to review procedures conducted by external personnel not directly involved in the inventory compilation. In this context, Uruguay has shown interest in potential activities for the QA of the BUR for the agriculture and LULUCF sector, performed by FAO.

Furthermore, FAO benefits from country experts' feedback on the user-friendliness, completeness, clarity, and usefulness of the FAOSTAT Emissions database and the AFOLU Emissions Analysis tools, allowing it to improve the value of these products.

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