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Technical analysis of the first biennial update report of Uruguay submitted on 7 December 2015

Summary report by the team of technical experts

Summary

According to decision 2/CP.17, paragraph 41(a), Parties not included in Annex I to the Convention (non-Annex I Parties), consistent with their capabilities and the level of support provided for reporting, were to submit their first biennial update report (BUR) by December 2014. The least developed country Parties and small island developing States may submit BURs at their discretion. Further, according to paragraph 58(a) of the same decision, the first round of international consultation and analysis (ICA) will be conducted for non-Annex I Parties commencing within six months of the submission of the Party's first BUR. The process of ICA consists of two steps: the technical analysis of the submitted BUR, followed by a workshop for the facilitative sharing of views under the Subsidiary Body for Implementation. This summary report presents the results of the technical analysis of the first BUR of Uruguay conducted by a team of technical experts in accordance with the modalities and procedures contained in the annex to decision 20/CP.19.

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I. Introduction and process overview

A. Introduction

1. According to decision 2/CP.17, paragraph 41(a), Parties not included in Annex I to the Convention (non-Annex I Parties), consistent with their capabilities and the level of support provided for reporting, were to submit their first biennial update report (BUR) by December 2014. The least developed country Parties and small island developing States may submit BURs at their discretion. Further, according to paragraph 58(a) of the same decision, the first round of international consultation and analysis (ICA) is to be conducted for non-Annex I Parties commencing within six months of the submission of the Party's first BUR. The process of ICA consists of two steps: the technical analysis of the submitted BUR, resulting in a summary report for each BUR analysed, followed by a workshop for the facilitative sharing of views under the Subsidiary Body for Implementation.
2. This summary report presents the results of the technical analysis of the first BUR of Uruguay undertaken by a team of technical experts (TTE) in accordance with the provisions on the composition, modalities and procedures of the TTE under ICA contained in the annex to decision 20/CP.19.

B. Process overview

3. Uruguay submitted its first BUR on 7 December 2015.
4. The technical analysis of the BUR took place from 29 February to 4 March 2016 in Bonn, Germany, and was undertaken by the following TTE, drawn from the UNFCCC roster of experts on the basis of the criteria defined in decision 20/CP.19, annex, paragraphs 2–6: Mr. Eduardo Calvo Buendia (Peru), Ms. Rocio Danica Condor (Italy), Mr. Cristobal Felix Diaz Morejon (Cuba), Ms. Jenny Mager (Chile), Mr. Juan Luis Martin Ortega (Spain) and Ms. Lilian Portillo (former member of the Consultative Group of Experts on the Preparation of National Communications from Parties not included in Annex I to the Convention from Paraguay). Mr. Martin Ortega and Ms. Portillo were the co-leads. Ms. Alma Jean (secretariat) provided administrative support to the TTE.
5. During the technical analysis, in addition to the written exchange, through the secretariat, to provide technical clarifications on the information reported in the BUR, the TTE and Uruguay also engaged in discussion via teleconferencing, primarily to reach an understanding on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of the BUR, the TTE prepared and shared a draft summary report with Uruguay on 30 May 2016 for its review and comment. Uruguay, in turn, provided its feedback on the draft summary report on 24 August 2016.
6. The TTE responded to and incorporated the Party's comments referred to in paragraph 5 above and finalized the summary report in consultation with Uruguay on 7 October 2016.

II. Technical analysis of the information reported in the biennial update report

A. Scope of the technical analysis

7. The scope of the technical analysis is outlined in decision 20/CP.19, annex, paragraph 15, according to which the technical analysis aims to, without engaging in a discussion on the appropriateness of these actions, increase transparency of mitigation actions and their effects, and shall entail the following:

(a) The identification of the extent to which the elements of information listed in paragraph 3(a) of the ICA modalities and guidelines (decision 2/CP.17, annex IV) have been included in the BUR of the Party concerned (see chapter II.B below);

(b) A technical analysis of the information reported in the BUR, specified in the “UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention” (hereinafter referred to as the UNFCCC reporting guidelines on BURs) contained in annex III to decision 2/CP.17, and any additional technical information provided by the Party concerned (see chapter II.C below);

(c) The identification, in consultation with the Party concerned, of capacity-building needs related to the facilitation of reporting in accordance with the UNFCCC reporting guidelines on BURs and to participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention (see chapter II.D below).

8. The remainder of this chapter presents the results of each of the three parts of the technical analysis of Uruguay’s BUR outlined in paragraph 7 above.

B. Overview of the elements of information reported

9. The elements of information referred to in paragraph 7(a) above include: the national greenhouse gas (GHG) inventory report; information on mitigation actions, including a description of such actions, an analysis of their impacts and the associated methodologies and assumptions, and the progress made in their implementation; information on domestic measurement, reporting and verification, and information on support received.

10. Further, according to decision 20/CP.19, annex, paragraph 15(a), in undertaking the technical analysis of the submitted BUR, the TTE is to identify the extent to which the elements of information listed in paragraph 9 above have been included in the BUR of the Party concerned. The results of that analysis are presented in tables 1, 2 and 3 below.

1. National greenhouse gas inventory

11. The parts of the UNFCCC reporting guidelines on BURs on reporting information on GHG emissions by sources and removals by sinks in BURs are contained in decision 2/CP.17, paragraph 41(g), and paragraphs 3–10 of the UNFCCC reporting guidelines on BURs. Further, as per paragraph 3 of those guidelines, non-Annex I Parties are to submit updates of their national GHG inventories in accordance with paragraphs 8–24 of the “Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention” contained in the annex to decision 17/CP.8. The scope of such updates should be consistent with the non-Annex I Party’s capacity and time constraints

and the availability of its data, as well as the level of support provided by developed country Parties for biennial update reporting.

12. Table 1 presents the results of the identification of the extent to which the elements of information on GHGs are included in the first BUR of Uruguay in accordance with the relevant parts of the UNFCCC reporting guidelines on BURs.

Table 1

Identification of the extent to which the elements of information on greenhouse gases are included in the first biennial update report of Uruguay

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, paragraph 41(g)	The first BUR shall cover, at a minimum, the inventory for the calendar year no more than four years prior to the date of the submission, or more recent years if information is available	Partly	The BUR was submitted in 2015, but the GHG inventory covers the calendar year 2010
Decision 2/CP.17, annex III, paragraph 5	The updates of the sections on the national inventories of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol should contain updated data on activity levels based on the best information available using the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF; any change to the emission factor may be made in the subsequent full national communication	Yes	
Decision 2/CP.17, annex III, paragraph 9	The inventory section of the BUR should consist of a national inventory report as a summary or as an update of the information contained in decision 17/CP.8, annex, chapter III (National greenhouse gas inventories), including: (a) Table 1 (National greenhouse gas inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol and greenhouse gas precursors) (b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF ₆)	Yes Partly	Uruguay did not report table 2 in its BUR, but provide comparable data for HFCs and SF ₆
Decision 2/CP.17, annex III, paragraph 6	Non-Annex I Parties are encouraged to include, as appropriate and to the extent that capacities permit, in the		

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
	inventory section of the BUR:		
	(a) Tables included in annex 3A.2 to chapter 3 of the IPCC good practice guidance for LULUCF	Partly	Uruguay provided estimates only for category 5A; however, estimations were performed by applying the Revised 1996 IPCC Guidelines
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines	Yes	
Decision 2/CP.17, annex III, paragraph 7	Each non-Annex I Party is encouraged to provide a consistent time series back to the years reported in the previous national communications	Partly	Non-CO ₂ emissions from the energy sector were not recalculated
Decision 2/CP.17, annex III, paragraph 8	Non-Annex I Parties that have previously reported on their national GHG inventories contained in their national communications are encouraged to submit summary information tables of inventories for previous submission years (e.g. for 1994 and 2000)	Partly	The Party did not include summary information tables of previous submissions in its BUR
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex	Yes	
Decision 17/CP.8, annex, paragraph 13	Non-Annex I Parties are encouraged to describe procedures and arrangements undertaken to collect and archive data for the preparation of national GHG inventories, as well as efforts to make this a continuous process, including information on the role of the institutions involved	Yes	
Decision 17/CP.8, annex, paragraph 14	Each non-Annex I Party shall, as appropriate and to the extent possible, provide in its national inventory, on a gas-by-gas basis and in units of mass, estimates of anthropogenic emissions of the following gases by sources and removals by sinks:		
	(a) CO ₂	Yes	
	(b) CH ₄	Yes	
	(c) N ₂ O	Yes	
Decision 17/CP.8, annex, paragraph 15	Non-Annex I Parties are encouraged, as appropriate, to provide	Yes	HFCs and SF ₆ emissions were

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
	information on anthropogenic emissions by sources of HFCs, PFCs and SF ₆		reported; PFCs were reported as "NO"
Decision 17/CP.8, annex, paragraph 19	Non-Annex I Parties should, to the extent possible, and if disaggregated data are available, report emissions from international aviation and marine bunker fuels separately in their inventories: (a) International aviation (b) Marine bunker fuels	Yes Yes	
Decision 17/CP.8, annex, paragraph 16	Non-Annex I Parties are encouraged, as appropriate, to report on anthropogenic emission by sources of other GHGs, such as: (a) CO (b) NO _x (c) NMVOCs	Yes Yes Yes	
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as SO _x , included in the Revised 1996 IPCC Guidelines may be included at the discretion of the Parties	Yes	
Decision 17/CP.8, annex, paragraph 21	Non-Annex I Parties are encouraged to provide information on methodologies used in the estimation of anthropogenic emissions by sources and removals by sinks of GHGs not controlled by the Montreal Protocol, including a brief explanation of the sources of emission factors and activity data. If non-Annex I Parties estimate anthropogenic emissions and removals from country-specific sources and/or sinks that are not part of the Revised 1996 IPCC Guidelines, they should explicitly describe the source and/or sink categories, methodologies, emission factors and activity data used in their estimation of emissions, as appropriate. Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building: (a) Information on methodologies used in the estimation of anthropogenic emissions by sources	Yes	

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No/NA</i>	<i>Comments on the extent of the information provided</i>
	and removals by sinks of GHGs not controlled by the Montreal Protocol		
	(b) Explanation of the sources of emission factors	Yes	
	(c) Explanation of the sources of activity data	Yes	
	(d) If non-Annex I Parties estimate anthropogenic emissions and removals from country-specific sources and/or sinks that are not part of the Revised 1996 IPCC Guidelines, they should explicitly describe:		
	(i) Source and/or sink categories	Yes	
	(ii) Methodologies	Yes	
	(iii) Emission factors	Yes	
	(iv) Activity data	Yes	
	(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building	Yes	
Decision 17/CP.8, annex, paragraph 24	Non-Annex I Parties are encouraged to provide information on the level of uncertainty associated with inventory data and their underlying assumptions, and to describe the methodologies used, if any, for estimating these uncertainties:		
	(a) Level of uncertainty associated with inventory data	Yes	
	(b) Underlying assumptions	Yes	
	(c) Methodologies used, if any, for estimating these uncertainties	Yes	

Abbreviations: BUR = biennial update report, GHG = greenhouse gas, IPCC = Intergovernmental Panel on Climate Change, IPCC good practice guidance = *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, IPCC good practice guidance for LULUCF = *Good Practice Guidance for Land Use, Land-Use Change and Forestry*, LULUCF = land use, land-use change and forestry, NA = not applicable, NMVOC = non-methane volatile organic compound, NO = not occurring, Revised 1996 IPCC Guidelines = *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*.

2. Mitigation actions and their effects

13. The parts of the UNFCCC reporting guidelines on BURs on the reporting of information on mitigation actions in BURs are contained in paragraphs 11–13 of the UNFCCC reporting guidelines on BURs.

14. Uruguay did report on mitigation actions in its first BUR. Some of the information on mitigation actions reported is provided in tabular format.

15. Table 2 presents the results of the identification of the extent to which the elements of information on mitigation actions are included in the first BUR of Uruguay in accordance with the relevant parts of the UNFCCC reporting guidelines on BURs.

Table 2

Identification of the extent to which the elements of information on mitigation actions are included in the first biennial update report of Uruguay

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 12	For each mitigation action or groups of mitigation actions including, as appropriate, those listed in document FCCC/AWGLCA/2011/INF.1, developing country Parties shall provide the following information to the extent possible:		
	(a) Name and description of the mitigation action, including information on the nature of the action, coverage (i.e. sectors and gases), quantitative goals and progress indicators	Partly	Chapter 3 of the BUR does not contain any information regarding the emission reduction actions achieved by the policies listed. With regard to NAMAs, the table provided in the BUR (chapter 3.3, second table), does not include information on quantitative goals and progress indicators for all reported NAMAs
	(b) Information on:		
	(i) Methodologies	No	
	(ii) Assumptions	No	
	(c) Information on:		
	(i) Objectives of the action	Yes	
	(ii) Steps taken or envisaged to achieve that action	Partly	Information on steps taken or envisaged to achieve the actions listed is provided only for some of the actions
	(d) Information on the progress of implementation of the mitigation actions and the underlying steps taken or envisaged, and the results achieved, such as estimated outcomes (metrics)		

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/ Partly/No</i>	<i>Comments on the extent of the information provided</i>
	depending on type of action) and estimated emission reductions, to the extent possible:		
	(i) Progress of implementation of the mitigation actions	Yes	
	(ii) Progress of implementation of underlying steps taken or envisaged	Partly	Information on the underlying steps taken or envisaged is provided only for some of the actions
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible	Partly	Information is provided on results achieved for most actions, but information is not reported on estimated emission reductions
	(e) Information on international market mechanisms	Yes	
Decision 2/CP.17, annex III, paragraph 13	Parties should provide information on the description of domestic measurement, reporting and verification arrangements	Yes	

Abbreviations: BUR = biennial update report, NAMA = nationally appropriate mitigation action.

3. Finance, technology and capacity-building needs and support received

16. The parts of the UNFCCC reporting guidelines on BURs on the reporting of information on finance, technology and capacity-building needs and support received in BURs are contained in paragraphs 14–16 of the UNFCCC reporting guidelines on BURs.

17. Table 3 presents the results of the identification of the extent to which the elements of information on finance, technology and capacity-building needs and support received are included in the BUR of Uruguay in accordance with the relevant parts of the UNFCCC reporting guidelines on BURs.

Table 3

Identification of the extent to which the elements of information on finance, technology and capacity-building needs and support received are included in the first biennial update report of Uruguay

<i>Decision</i>	<i>Provision of the reporting requirements</i>	<i>Yes/ Partly/No</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on constraints and gaps, and related financial, technical and capacity-building needs:		
	(a) Constraints and gaps	Partly	The BUR includes information on constraints and gaps but only related to the implementation of

<i>Decision</i>	<i>Provision of the reporting requirements</i>	<i>Yes/ Partly/No</i>	<i>Comments on the extent of the information provided</i>
	(b) Related financial, technical and capacity-building needs	Partly	mitigation actions The BUR includes information on technology, finance and capacity-building needs, but only related to the implementation of mitigation actions
Decision 2/CP.17, annex III, paragraph 15	Non-Annex I Parties should also provide updated information on financial resources, technology transfer, capacity-building and technical support received from the Global Environment Facility, Annex II Parties and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current biennial update report	Yes	
Decision 2/CP.17, annex III, paragraph 16	With regard to the development and transfer of technology, non-Annex I Parties should provide information on technology needs, which must be nationally determined, and technology support received:		
	(a) Technology needs, which must be nationally determined	Partly	An ongoing technology needs assessment is mentioned in the BUR. However, no further information on this assessment was provided
	(b) Technology support received	Yes	

Abbreviation: BUR = biennial update report.

C. Technical analysis of the information reported

18. The technical analysis referred to in paragraph 7(b) above aims to increase the transparency of mitigation actions and their effects, without engaging in discussion on the appropriateness of those actions. Accordingly, the technical analysis focused on the transparency of the information reported in the BUR.

19. For information reported on national GHG inventories, the technical analysis also focused on the consistency of the methods used for preparing those inventories with the appropriate methods developed by the Intergovernmental Panel on Climate Change (IPCC) and referred to in the UNFCCC reporting guidelines on BURs.

20. The results of the technical analysis are presented in the remainder of this chapter.

1. Information on national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis

21. As per the scope defined in paragraph 2 of the UNFCCC reporting guidelines on BURs, Uruguay provides an update to the information contained in the most recently submitted national communication, including, among other things, information on national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis. For their national communications, non-Annex I Parties report on their national circumstances following the reporting guidance contained in decision 17/CP.8, annex, paragraphs 3–5.

22. In accordance with decision 17/CP.8, annex, paragraph 3, Uruguay, in its BUR, reported the following information on its national circumstances: features of geography, socioeconomic characterization, weather and extreme events and sectoral characterization, which may affect the Party's ability to deal with mitigating and adapting to climate change, as well as information regarding needs on actions to mitigate climate change (see chapter II.C.4 below for more details).

23. The information reported on key development variables such as population, gross domestic product growth and sectoral economy features adequately supports the understanding and analysis of the information contained in subsequent chapters of the BUR.

24. Uruguay described in its BUR the institutional arrangements relevant to the preparation of national communications and BURs on a continuous basis. The description covers key aspects of the institutional arrangements, such as: legal status, roles and responsibilities of the overall coordination and the involvement and roles of other institutions.

25. During the technical analysis, Uruguay clarified that the country has very strong and fluid institutional arrangements related to climate change. As stated in the BUR, policies are driven by the National System to Respond to Climate Change (NSRCC), which includes all relevant ministries, local government and other institutions with responsibilities related to climate change. The NSRCC oversees the coordination and the arrangement of the policies, programmes and plans to deal with climate change. The NSRCC has specific thematic groups to deal with different working areas, such as international negotiation, mitigation, adaptation and financing national GHG inventories. In this regard, the BUR was prepared and validated within the NSRCC. The same approach applies to other documents and decisions related to climate change at the national, sectoral and local levels.

26. In chapter 3.4 of the BUR, Uruguay describes the different national systems in place in the country and states that they are being adapted to establish an integrated national system for measurement, reporting and verification. During the technical analysis, Uruguay clarified its commitment to elaborating and developing a national inventory system and other components of measurement, reporting and verification in the next BUR. The TTE commends the Party for its effort in developing its measurement, reporting and verification system and noted that the transparency of information on the institutional arrangements could be further enhanced by including the potential changes in the institutional arrangements that might arise from the integration of the new components and the establishment of a single national system for measurement, reporting and verification.

2. National greenhouse gas emissions by sources and removals by sinks

27. As indicated in table 1 above, [Party] reported in its BUR, in accordance with paragraphs 3–10 of the UNFCCC reporting guidelines on BURs and paragraphs 8–24 of the “Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention” contained in the annex to decision 17/CP.8.

28. Uruguay reported in its BUR information on its national GHG inventories covering GHG emissions and removals for 2010 using the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the Revised 1996 IPCC Guidelines) and the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* (hereinafter referred to as the IPCC good practice guidance). Uruguay is also moving towards the implementation of the *IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry* (hereinafter referred to as the IPCC good practice guidance for LULUCF). The use of emission factors from the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines) for some categories of the national GHG inventory is also reported in the BUR.

29. In the BUR, Uruguay did not provide summary information tables from previously submitted national communications. However, information on GHG emissions for 1990, 1994, 1998, 2000, 2002, 2004, 2006 and 2008 is provided in the technical annex to the BUR. The TTE notes that the transparency of reporting could be further enhanced if this information were to be included in the BUR submission.

30. In its description of the institutional arrangements to prepare the national GHG inventory, Uruguay stated that, in 2010, it established an inter-institutional national inventory system incorporating the *Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, Ministerio de Ganadería, Agricultura y Pesca* and *Ministerio de Industria, Energía y Minería*. During the technical analysis, Uruguay clarified that the development of the inter-institutional national inventory system will enable the Party to implement its plan to systematize and archive the work done under the national GHG inventory. Uruguay provided detailed information on the archiving system and a table listing the institutions involved and their roles. The TTE notes that the transparency of reporting could be enhanced if this information were to be included in the next BUR submission. Uruguay indicated that there is a need to enhance the capacity to develop the most appropriate approach to designing and implementing the national inventory system, including the development of a quality assurance/quality control (QA/QC) plan.

31. Detailed information on the tier method applied to the subcategories of the national GHG inventory is reported in the annex to the BUR. The TTE commends Uruguay for providing this detailed information.

32. In chapter 2.2 of its BUR, Uruguay reported table 1 (*Panorama general de emisiones*) and the sectoral worksheets from the Revised 1996 IPCC Guidelines. However, Uruguay did not provide table 2, as encouraged by decision 2/CP.17, annex III, paragraph 9. Data were reported for hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF₆) but not for perfluorocarbons (PFCs), which were reported as “NO” (not occurring) in the country in 2010. The TTE notes that the transparency of reporting could be further enhanced by including table 2 in the BUR.

33. In accordance with decision 2/CP.17, annex III, paragraph 7, Uruguay reported on its time series. During the technical analysis, Uruguay informed the TTE that it ensured the consistency of the time series by recalculating carbon dioxide (CO₂) emissions from the energy sector. However, non-CO₂ emissions were not recalculated. Uruguay stated that further information on this issue will be provided in the fourth national communication.

34. Uruguay reported on its key category/uncertainty analysis and qualitative uncertainty analysis, but also provided quantitative uncertainty analysis for some sectors. The TTE commends the Party for its effort in providing this information.

35. For the energy sector, Uruguay provided detailed reports, by type of fuel. The Party used default emission factors and the tier 2 method whenever possible. Regarding mobile combustion emissions, Uruguay used *Anuario Estadístico de Transporte*, but there is no

mention of tiers or the models applied. The TTE notes the importance of this sector and that including such data in the BUR would further improve the transparency of reporting.

36. For the industrial processes and product use (IPPU) sector, Uruguay reported four sources of CO₂ emissions, including cement production, which accounts for more than 90 per cent of the CO₂ emissions from the IPPU sector. The IPPU sector represents about 1 per cent of the total GHG emissions for 2010. Emissions of HFCs and SF₆ were not reported in chapter 2.2.1 of the BUR. During the technical analysis, Uruguay clarified that chapter 2.2.1 includes only the gases that represent the majority of GHG emissions, and therefore HFCs and SF₆ were not included for the IPPU sector. Uruguay also specified that information on these emissions in the IPPU sector is provided in the technical annex to the BUR.

37. GHG emissions for the solvent use sector were not reported in the BUR. Uruguay reported that the absence of these emission estimates was due to the lack of identified activities in this sector.

38. For the agriculture sector, Uruguay applied the methods contained in the Revised 1996 IPCC Guidelines and some parameters from the 2006 IPCC Guidelines for its 2010 estimates. Methane (CH₄) from enteric fermentation for dairy and non-dairy cattle was reported as a key category. During the technical analysis, Uruguay provided a table with information on the tier methods, activity data (AD) and emission factors by source category: enteric fermentation (4A), manure management (4B), rice cultivation (4C), agricultural soils (4D), prescribed burning of savannahs (4E) and field burning of agricultural residues (4F). Uruguay used a tier 2 approach to estimate emission factors for CH₄ emissions from 4A (dairy and non-dairy cattle) and 4B (non-dairy cattle). Country-specific nitrogen excretion rates were also estimated for dairy and non-dairy cattle.

39. The information reported in the BUR indicates that, for 2010, Uruguay used AD collected from agricultural statistics from the *Ministerio de Ganadería, Agricultura y Pesca, Dirección de Investigaciones y Estadísticas Agropecuarias* and *Dirección de Contralor de Semovientes*, for the 4A source category. Statistics from *Dirección de Suelos y Fertilizantes* were used for the 4D source category. During the technical analysis, Uruguay provided the TTE with a table with details of AD sources by category. The TTE notes that the inclusion of this information could enhance the transparency of reporting in the BUR.

40. Uruguay reported that it did not estimate GHG emissions from nitrogen fixation by legumes under the 4D source category. During the technical analysis, Uruguay clarified that there is a considerable area cultivated with legumes (mainly soy); however, national research studies consider emissions negligible. Furthermore, Uruguay stated that nitrogen fixation by legumes is no longer accounted for in the 2006 IPCC Guidelines. Uruguay indicated that there is no savannah in the country; however, emissions from burning of biomass from *pajonales* were included under this category. Uruguay further indicated that that the reporting of GHG emissions in category 4E will be improved in the future.

41. In accordance with decision 2/CP.17, annex III, paragraph 6, Uruguay reported, for the LULUCF sector, information for the tables included in annex 3.A.2 to chapter 3 of the IPCC good practice guidance for LULUCF. Uruguay only reported estimates for changes in forest and other woody biomass stocks (category 5A). Uruguay reported in its BUR (table 2.2) that categories forest and grassland conversion (5B) and abandonment of managed lands (5C) are not occurring, and that category CO₂ emissions and removals from soil (5D) is not estimated. During the technical analysis, Uruguay clarified that it used methods from the Revised 1996 IPCC Guidelines for estimating emissions/removals from the LULUCF sector. Uruguay also clarified that, owing to the expansion of soy cultivation, emissions from the conversion of grassland to agricultural land (biomass pool) should be included in

the estimations. The TTE noted that the inclusion of this information would increase the transparency of the information reported in the BUR.

42. During the technical analysis, Uruguay informed the TTE that national efforts are under way to collect data in order to prepare estimates for all the LULUCF source and sink categories. Uruguay has also indicated that there is a need for training and capacity-building to consistently represent land use and land-use change in the six categories defined by the IPCC for the national GHG inventory and for research on soil organic carbon in land converted to croplands and croplands converted to grasslands.

43. Uruguay has reported on the use of AD for category 5A from statistics available from the *Ministerio de Ganadería, Agricultura y Pesca, Dirección Forestal* and *Ministerio de Industria, Energía y Minería, Dirección Nacional de Energía*. During the technical analysis, Uruguay provided information on the country-specific average of the annual increment and wood density for planted and native forests. The main source of AD is the *Ministerio de Ganadería, Agricultura y Pesca, Dirección Forestal*. The Party also clarified that, until now, the national forest inventory did not gather information that is useful for the preparation of the GHG inventory (e.g. on the different carbon pools). Uruguay further explained that the areas of plantations (afforestation) have increased since 1988 as a result of economic incentives (plantations for industry) and that net deforestation in Uruguay does not occur. The TTE notes that the inclusion of all this information could enhance the transparency of the information reported in the BUR.

44. As with the IPPU sector regarding CO₂ emissions, emissions from the waste sector are similarly marginal in the Uruguay inventory, but the GHGs concerned are CH₄ and nitrous oxide, which represented 6.5 per cent and 0.24 per cent, respectively, of the total GHG emissions in 2010.

3. Mitigation actions and their effects, including associated methodologies and assumptions

45. As indicated in table 2 above, Uruguay reported in its BUR, in accordance with paragraphs 11–13 of the UNFCCC reporting guidelines on BURs, information on mitigation actions and their effects. The TTE acknowledges that the information reported in the BUR is comprehensive, providing a national context on mitigation policies. Uruguay's BUR frames mitigation planning and actions within the main policies of key sectors with significant GHG emissions.

46. For the energy sector, information is reported in the BUR on the *Política Energetica* and its most significant goals related to the increased use of renewable energy in the energy matrix, which increased to over 90 per cent in 2014. The estimated emission reductions resulting from this policy are 88 per cent below the 2005–2009 level by 2017. Information on the methodologies and assumptions used to estimate this emission reduction is not reported in the BUR. The TTE notes that the transparency of the information reported could be enhanced if this were to be included in the BUR.

47. For the agriculture sector, the strategy for reducing emissions considers: promoting improvements in productivity; increasing the efficiency of intensive farming; and improving the diets of livestock. The estimated outcome of the agriculture mitigation approach is to reduce unconditionally the CH₄ emission intensity by 33 per cent below the 1990 level, and by 46 per cent below the 1990 level if the country receives international support. Further information on how Uruguay sets these targets is not reported in the BUR. The TTE notes that the transparency of the information reported could be enhanced if this information were to be included in the BUR.

48. In chapter 3.2 of the BUR, Uruguay reported that surface covered by commercial plantations (wood and cellulose production) has increased by 430 per cent in the past

20 years. As a result of this forest management and the protection of native species, Uruguay expects the LULUCF sector to be a net sink of emissions in the next few years.

49. Uruguay provides, in tabular format, information on the name, description and progress/achievements of mitigation actions implemented or under implementation within the country; however, specific quantitative information on reductions in GHG emissions is not provided. The details of these mitigation actions can be found in chapter 3.2 of the BUR. Overall, Uruguay's BUR is comprehensive with regard to descriptions of the implemented mitigation actions, providing information on actions that address the following: sustainable diversification of the energy matrix; promotion of energy efficiency; improvement of agricultural production; forestry; waste management and treatment; and a model of sustainable and efficient transport.

50. The TTE commends Uruguay for the efforts made to provide information on the mitigation actions implemented and noted that the transparency could be enhanced if information related to GHG emission reductions, methodologies, assumptions and progress indicators were to be provided for all the actions listed, in accordance with paragraph 12 of the UNFCCC reporting guidelines on BURs. During the technical analysis, Uruguay clarified that the country has been implementing a structural transformation, aiming to decarbonize the economy.

51. Apart from the information reported on implemented mitigation actions, the BUR highlights and provides details on seven nationally appropriate mitigation actions (NAMAs) registered in the UNFCCC NAMA registry, and also two additional NAMAs. These will contribute to a reduction in emissions within the country. Uruguay's NAMAs cover the energy, waste, forestry and agriculture sectors. The BUR provides the following information in tabular format: name of the action, description, objectives, sector, quantitative goals and results. Uruguay has carried out pioneering work on NAMAs, starting with the registration of six NAMAs in 2012 seeking support for implementation and preparation, while three of them were for recognition.

52. Further, information on the processes systematically carried out regarding the identification, collection, monitoring and verification of NAMAs is not provided in the BUR. The TTE noted that the transparency of the Party's BUR could be improved by including this information in the BUR. Quantitative information on NAMAs, as well as the methodologies used to estimate their impacts on GHG emissions is not reported for all the actions. During the technical analysis, Uruguay clarified that details on these NAMAs can be found directly in the NAMA registry; however, information was not reported in the BUR. The TTE notes that including this information in the BUR could enhance the transparency of the information reported.

53. The BUR does not report all the information in accordance with paragraph 12 of the UNFCCC reporting guidelines on BURs for all the actions reported in the BUR, in particular, on goals and on the progress of implementation (e.g. progress indicators to record the results achieved of the emission reductions) of each action. The TTE noted that the transparency of the BUR could be enhanced if such information were to be included. During the technical analysis, Uruguay clarified that the progress of some of the actions implemented and under implementation (in particular in the energy sector) is permanently monitored through the national energy balance, and that this information is systematized and publicly available. Further, the Party clarified that all its mitigation actions are part of an ongoing structural change. Emission reductions will be reported in future national GHG inventories of the Party, where the structural transformation will be reflected.

54. Uruguay transparently describes its participation in the clean development mechanism (CDM) and reports statistics related to its participation in international carbon markets (under the CDM). These statistics indicate that the country has 26 projects in the

CDM registry; 1 of these corresponds to a programme of activities, but most focus on the energy sector.

4. Constraints and gaps, and related technology, financial, technical and capacity-building needs, including a description of support needed and received

55. As indicated in table 3 above, [Party] reported in its BUR, in accordance with paragraphs 14–16 of the UNFCCC reporting guidelines on BURs, information on finance, technology and capacity-building needs and support received.”

56. Uruguay provides in chapter 4 of its BUR information on constraints, gaps and needs. This is the main chapter of the BUR, where Uruguay provides information on support received and support needed.

57. Regarding the support needed, the BUR contains information on the mitigation actions for which the Party needs support. Uruguay provides detailed information on each mitigation action and includes details of the associated needs by type of support, in a tabular format. The TTE commends the Party for its efforts and notes that Uruguay could enhance the transparency of its reporting in the BUR by including information on the identification of gaps and needs for aspects covered by the scope of the BUR (e.g. gaps in compiling the inventory, in the preparation of the BUR and in estimating the emission reductions of mitigation actions). The TTE noted that the aforementioned support needed on the design and implementation of a methodology for identifying constraints, gaps and needs could help the Party to improve its reporting in this regard.

58. Regarding the support received, Uruguay provides information in chapter 4.2 of the BUR and reports the relevant projects that have received international support. The TTE acknowledges that Uruguay has made a significant effort to gather information on the different projects supported. The TTE notes that the transparency of information reported could be enhanced by providing the amounts of the funding received as well as the specific technology or capacity-building that comes from each donor/fund.

59. Uruguay acknowledges in its BUR that the Party experienced a challenge in applying the provisions of the UNFCCC reporting guidelines on BURs to several sectors, in particular for identifying the country weaknesses. Further, during the technical analysis week, Uruguay indicated that a methodology for identifying constraints, gaps and needs could assist in overcoming this challenge and highlighted the need for designing and implementing this methodology.

60. Uruguay reports, in its BUR, that a technology needs assessment (TNA) exercise is ongoing in the country. During the technical analysis, Uruguay clarified that as a result of the TNA, the technology needs of the country have been identified. Uruguay also clarified that due to funding constraints, the country is focused on tackling only very few technology needs.

61. The TTE commends Uruguay for the efforts made to perform the TNA process and notes that inclusion of more detailed information (for instance, the methodology, steps taken, progress and results) in the submission of its next BUR will further enhance the transparency of the information reported.

5. Domestic measurement, reporting and verification

62. As indicated in table 2 above, [Party] reported in its BUR, in accordance with paragraph 13 of the UNFCCC reporting guidelines on BURs, information on the description of domestic measurement, reporting and verification arrangements.

63. The main instruments described in the BUR, which will be integrated in the national system for measurement, reporting and verification are: a national framework mechanism

for monitoring public policy; the national GHG inventory; the national system for agricultural information; the national forest inventory; the national energy balance; and indicators on energy efficiency. This information is complemented with information on the entities and the institutional arrangements of the country for issues relating to climate change (chapter 1.2 of the BUR), where information is provided on climate change laws, institutional arrangements and entities responsible.

64. During the technical analysis, Uruguay clarified its commitment to elaborating and developing the national inventory system and other components of the measurement, reporting and verification system in its subsequent BURs. The TTE commends the Party for its efforts made and in the progress achieved to establish a single national measurement, reporting and verification system, and encourages the country to provide detailed information on the structure, components and linkages in the BUR submission with a view to further enhancing the transparency of the reported information.

D. Identification of capacity-building needs

65. In consultation with Uruguay, the TTE identified the following capacity-building needs related to the facilitation of the preparation of subsequent BURs and participation in ICA:

- (a) Enhancing the capacity to develop the most appropriate approach to designing and implementing the national GHG inventory system including a QA/QC plan;
- (b) Representing land use and land-use change in the six categories defined by the IPCC and research on soil organic carbon dynamics in land converted to croplands and croplands converted to grasslands;
- (c) Enhancing the national capacity to transform the integration of the established measurement, reporting and verification tools into an integrated national measurement, reporting and verification system, as well as to develop further tools as needed;
- (d) Designing and implementing a methodology for identifying gaps, constraints and needs.

III. Conclusions

66. The TTE concludes that:

- (a) Most of the elements of information listed in paragraph 3(a) of the ICA modalities and guidelines have been included in the first BUR of Uruguay;
- (b) Overall, the Party presents a comprehensive description of the institutional arrangements in place or planned, and improvements undertaken to ensure the sustainability of the BUR preparation process on a continuous basis;
- (c) Uruguay reports, in its BUR, information on its national GHG inventories covering GHG emissions and removals for the year 2010 using the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF; however, the 2006 IPCC Guidelines are used for certain emission factors. Uruguay provides information regarding the tiers applied. In the annex to the BUR, Uruguay has reported table 1 and the sectoral worksheets from the Revised 1996 IPCC Guidelines. Uruguay has reported GHG emissions for 2010, and states that recalculations of previous submissions will be included in the fourth national communication. With regard to the completeness of the inventory, Uruguay did not provide estimates for some categories

in the LULUCF sector (namely 5B, 5C, 5D and 5E), owing to a lack of information and capacity-building needs. Uruguay provides key category/uncertainty analysis and qualitative uncertainty analysis, but has also provided a quantitative uncertainty analysis for some sectors;

(d) Uruguay reports some of the information on mitigation actions required by paragraphs 11–13 of the UNFCCC reporting guidelines on BURs. The objectives and descriptions are clearly explained for most of the mitigation actions. However, information on coverage, quantitative goals and progress indicators is not consistently provided for all the actions listed. During the technical analysis, the Party clarified that some of the actions did not have quantitative goals and progress indicators. Uruguay does not provide information on the methodologies and assumptions used to estimate emission reductions. During the technical analysis, Uruguay clarified that all its mitigation actions are part of its structural change, moving towards to a low-carbon economy, and that all its efforts and the results will be assessed through its future GHG inventories; however, the country is making progress on the emission reduction estimations of the mitigation actions and other progress indicators;

(e) Uruguay includes information on institutional arrangements for the design and national approval of NAMAs and projects under the CDM. Uruguay indicated that seven official NAMAs are registered in the UNFCCC registry, and provides information on the description and objective of each action, but does not provide specific information about the institutions, entities, arrangements and systems involved in the domestic measurement, reporting and verification of NAMAs. During the technical analysis, Uruguay explained that further information on NAMAs can be found in the UNFCCC registry, but this information was not provided during the technical analysis;

(f) The information reported on constraints, gaps and related needs addresses only the areas related to mitigation actions. Information on the support received for developing relevant climate change projects is also provided. The design and implementation of a methodology for identifying gaps, constraints and needs for all aspects covered by the scope of the BUR is one of the main challenges for Uruguay. The TTE notes that the transparency of the information reported in the BUR on technologies (the TNA) and financial support received could be enhanced by providing more detailed information.

67. The TTE, in consultation with Uruguay, identified four¹ capacity-building needs related to the facilitation of reporting in accordance with the UNFCCC reporting guidelines on BURs and to participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention. Uruguay prioritized these as the capacity-building needs.

¹ This refers to the number of capacity-building needs listed in chapter II.D.

Annex

Documents and information used during the technical analysis

Reference documents

“Composition, modalities and procedures of the team of technical experts for undertaking the technical analysis of biennial update reports from Parties not included in Annex I to the Convention”. Annex to decision 20/CP.19. Available at <<http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=12>>.

“Modalities and guidelines for international consultation and analysis”. Annex IV to decision 2/CP.17. Available at <<http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>>.

“UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention”. Annex III to decision 2/CP.17. Available at <<http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>>.

“Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention”. Annex to decision 17/CP.8. Available at <<http://unfccc.int/resource/docs/cop8/07a02.pdf#page=2>>.

First biennial update report of Uruguay. Available at <<http://unfccc.int/8722.php>>.

Third national communication of Uruguay. Available at <http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php>.
