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Technical analysis of the second biennial update report of Brazil submitted on 3 March 2017

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), consistently with their capabilities and the level of support provided for reporting, should submit their first biennial update report (BUR) by December 2014. Further, paragraph 41(f) of that decision states that non-Annex I Parties shall submit a BUR every two years, either as a summary of parts of their national communication in the year in which the national communication is submitted or as a stand-alone update report. As mandated, the least developed country Parties and small island developing States may submit BURs at their discretion. This summary report presents the results of the technical analysis of the second BUR of Brazil 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. The process of international consultation and analysis (ICA) consists of two steps: the technical analysis of the submitted biennial update report (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. According to decision 2/CP.17, paragraph 41(a), Parties not included in Annex I to the Convention (non-Annex I Parties), consistently with their capabilities and the level of support provided for reporting, should submit their first BUR by December 2014. Paragraph 41(f) of that decision states that non-Annex I Parties shall submit a BUR every two years, either as a summary of parts of their national communication in the year in which the national communication is submitted or as a stand-alone update report.

3. Further, according to paragraph 58(a) of the same decision, the first round of ICA will be conducted for non-Annex I Parties commencing within six months of the submission of the Parties' first BURs. The frequency of developing country Parties' participation in subsequent rounds of ICA, based on their respective capabilities and national circumstances, and the special flexibility for small island developing States and the least developed country Parties, will be determined by the frequency of the submission of BURs.

4. Decision 14/CP.19, paragraph 7, outlines that developing country Parties seeking to obtain and receive payments for results-based actions can submit relevant information and data through the BUR in the form of a technical annex as per decision 2/CP.17, annex III, paragraph 19. Decision 14/CP.19, paragraph 8, outlines that the submission of the technical annex is voluntary and in the context of results-based payments. As mandated by decision 14/CP.19, paragraphs 10–14, the technical annex submitted by Brazil has been subject to technical analysis by two land use, land-use change and forestry (LULUCF) experts as part of the technical analysis of the Party's BUR.

5. Brazil submitted its first BUR on 31 December 2014, which was analysed by a team of technical experts (TTE) in the first round of technical analysis of BURs from non-Annex I Parties, conducted on 18 May 2015. After the publication of its summary report, Brazil participated in the first workshop for the facilitative sharing of views, convened in Bonn, Germany, on 20 May 2016.

6. This summary report presents the results of the technical analysis of the second BUR of Brazil undertaken by a 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. The technical report capturing the results of the technical analysis of the technical annex voluntarily submitted by Brazil in the context of results-based payments in accordance with paragraphs 7 and 8 of decision 14/CP.19, referred to in paragraph 4 above, is contained in document FCCC/SBI/ICA/2017/TATR.2/BRA.

B. Process overview

7. Brazil submitted its second BUR on 3 March 2017, nearly two years and two months after the submission of its first BUR, because of delays in translation and designing the final document related to the negotiations at the United Nations Climate Change Conference in Marrakech (7–18 November 2016) and to the time of the year, as explained by the Party during the technical analysis. In its second BUR, Brazil referred to its third national communication for information on the greenhouse gas (GHG) inventory, including information on methodologies, activity data (AD), emission factors (EFs), assumptions and uncertainty of estimates adopted for the preparation of the second BUR.

8. The technical analysis of the BUR took place from 22 to 26 May 2017 in Bonn 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: Ms. María Fernanda Alcobé (Argentina), Mr. Nagmeldin Elhassan (Sudan), Ms. María José López (Belgium), Ms. Lilian

Portillo (former member of the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE) from Paraguay), Mr. Andrew Rakestraw (former member of the CGE from the United States of America), Mr. Orlando Rey (Cuba) and Mr. Harry Vreuls (Netherlands). Ms. Alcobé and Ms. López were the co-leads. The technical analysis was coordinated by Ms. Bhava Dhungana and Ms. Karen Ortega (secretariat).

9. 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 Brazil engaged in consultation[1] on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of Brazil's second BUR, the TTE prepared and shared a draft summary report with Brazil on 27 July 2017 for its review and comment. Brazil, in turn, provided its feedback on the draft summary report on 25 September 2017.

10. The TTE responded to and incorporated the Party's comments referred to in paragraph 9 above and finalized the summary report in consultation with Brazil on 26 November 2018.

II. Technical analysis of the biennial update report

A. Scope of the technical analysis

11. 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 the actions, increase the 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) (decision 2/CP.17, annex III), 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).

12. The remainder of this chapter presents the results of each of the three parts of the technical analysis of Brazil's BUR outlined in paragraph 11 above.

B. Overview of the elements of information reported

13. The elements of information referred to in paragraph 11(a) above include the national 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 (MRV); and information on support needed and received.

14. 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 13 above have been included in the BUR of the Party concerned. The TTE considers that the reported information is mostly consistent with the

[1] This consultation was conducted through videoconferencing.

UNFCCC reporting guidelines on BURs. Specific details on the reporting on each of the required elements are provided in annex I.

15. The TTE notes improvements in the reporting in the second BUR compared with the first BUR. Information on GHG inventories, mitigation actions and their effects, needs and support reported in the second BUR demonstrates that the Party has taken into consideration the areas for enhanced transparency noted by the TTE in the summary report on the technical analysis of its first BUR. These include a summary on methodological aspects related to the GHG inventory added to the second BUR and also all the information reported in the third national communication related to the GHG inventories as explained in paragraph 7 above; more detailed information on the specific objectives in relation to its mitigation actions; and a major improvement to the level of detail and disaggregation regarding information related to financial, technical and capacity-building needs, and support received.

C. Technical analysis of the information reported

16. The technical analysis referred to in paragraph 11(b) above aims to increase the transparency of mitigation actions and their effects, without engaging in a discussion on the appropriateness of those actions. Accordingly, the technical analysis focused on the transparency of the information reported in the BUR.

17. 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.

18. 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

19. As per the scope defined in paragraph 2 of the UNFCCC reporting guidelines on BURs, the BUR should provide 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. In 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.

20. In accordance with decision 17/CP.8, annex, paragraph 3, Brazil reported in its second BUR the following information on national circumstances: a country profile, including information on features of territory, population, climate, biodiversity, water resources, energy mix, and relevant socioeconomic indicators; and a characterization of the regulatory frameworks and instruments that are in place to implement the requirements of the UNFCCC in the country. The National Policy on Climate Change (PNMC) is recognized as the basis of the legal framework for climate change actions in Brazil, and its main features are summarized in the BUR.

21. In addition, as encouraged in decision 17/CP.8, annex, paragraph 4, Brazil provided a summary of relevant information regarding its national circumstances in tabular format, including socioeconomic and others key indicators and their sources. This information transparently describes the Party's national circumstances.

22. Brazil transparently described in its BUR the existing institutional arrangements relevant to the preparation of its national communications and BURs on a continuous basis.

23. The technical annex to the BUR pursuant to decision 14/CP.19 was elaborated separately through a working group of technical experts on REDD-plus,[2] created in February 2014 by the Ministry of Environment.

[2] In decision 1/CP.16, paragraph 70, the Conference of the Parties encouraged developing country

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

24. Table 1 in annex I presents the results of the identification of the extent to which the elements of information on the GHG inventory, contained in 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", are included in the second BUR of Brazil.

25. Brazil submitted its second BUR on 3 March 2017 and the GHG inventory reported is for the year 2012. As per decision 2/CP.17, paragraph 41(g), subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years consistent with the reporting time frame; however, in the case of the second BUR of Brazil, the calendar year reported in its GHG inventory is more than four years previous, because of the two-month delay in the submission. In its BUR, Brazil provided a consistent time series back to the years reported in the previous national communications. Brazil submitted summary information tables of inventories for previous submission years (1994, 2000 and 2010). Brazil reported that methodologies, AD, EFs and assumptions applied in the second BUR are the same as those stated in the third national communication, submitted in April 2016.

26. GHG emissions and removals for the 2012 inventory were estimated using the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the Revised 1996 IPCC Guidelines), the *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* (hereinafter referred to as the IPCC good practice guidance), the *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (hereinafter referred to as the IPCC good practice guidance for LULUCF) and the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines). The 2006 IPCC Guidelines were used for most categories in the industrial processes and product use (IPPU) sector and for some individual categories of the energy and waste sectors. For the agriculture and LULUCF sectors, values from the 2006 IPCC Guidelines were used for some individual categories, such as emissions of methane (CH_4) and nitrous oxide (N_2O) from incineration of agricultural waste, liming and biomass burning.

27. With regard to the methodologies used, information was reported, including the specific methodology and AD used for most of the categories and subcategories, in the third national communication for the year 2010. The values for AD or EFs used in 2011 and 2012 (latest years included in the BUR) were not reported in the BUR for any source category. During the technical analysis, Brazil clarified that the AD and EFs from the same source as those used for the third national communication were used for 2011 and 2012 and, in some cases, simple extrapolation was used to update data. Brazil also provided complementary information about methods and data sources reported in the national inventory. The TTE noted that the transparency of the information reported could be further enhanced by including in the BUR the values and sources of AD and EFs used for the latest years reported.

28. The GHG emissions reported included estimates of anthropogenic emissions of carbon dioxide (CO_2), CH_4 and N_2O: 698,935 kt CO_2, 16,808 kt CH_4 and 582.2 kt N_2O. Brazil also reported emissions of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6). In 2012, those emissions were 0.0000 kt for HFC-23, 0.1286 kt for HFC-32, 0.4795 kt HFC-125, 0.3015 kt for HFC-134a, 0.4767 kt for HFC-143a, 0.0000 kt for HFC-152a, 0.0655 kt for CF_4, 0.0050 kt for C_2F_6 and 0.0087 kt for SF_6.

29. Other emissions reported were 3,581.5 kt nitrogen oxides (NO_X), 33,332.1 kt carbon monoxide (CO) and 7,121.4 kt non-methane volatile organic compounds (NMVOCs). Brazil did not report on sulfur dioxide (SO_X) in the BUR; as clarified by Brazil during the technical analysis, the Party did not consider it appropriate to the country's needs to report on emissions of other gases not controlled by the Montreal Protocol, such as SO_X, included in the Revised 1996 IPCC Guidelines, which may be included at the discretion of Parties. Brazil applied notation keys where numerical data were not provided, particularly the notation key "NE"

Parties to contribute to mitigation actions in the forest sector by undertaking the following activities: reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks.

(not estimated) for emissions of NMVOCs for the agriculture and LULUCF sectors. However, the notation key was reported without providing explanations in the BUR. The TTE also noted that emissions of NMVOCs for the waste sector were not reported in numbers or by applying a notation key. During the technical analysis week Brazil explained that NMVOCs were not reported due to the absence of methodologies in the Revised 1996 IPCC Guidelines for these gases.

30. Brazil reported in the BUR a summary table of information on emissions at the sectoral level for 2012, and reported other data in the third national communication related to the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF, although it did not include the tables. During the technical analysis week, Brazil explained that the absence of the tables included in annex 3A.2 is because there are a larger number of categories considered in the national inventory and because of the need to increase the quantity of tables to comply with the format of the IPCC good practice guidance for LULUCF. The TTE noted that including tables 1 and 2 with estimated emissions and removals by sectoral category from the latest year reported in the BUR (e.g. 2012), as appropriate and to the extent that capacities permit, could help in improving the understanding of these matters.

31. GHG emissions in 2012 from the energy sector amounted to 395,214.0 kt CO_2, 597.4 kt CH_4 and 36.55 kt N_2O. The TTE noted that providing information on the reference approach[3] for the year 2012 could improve the understanding of the GHG inventory section.

32. Industrial process emissions in 2012 amounted to 88,182.0 kt CO_2, 43.3 kt CH_4 and 36.55 kt N_2O, although the source categories were not reported in the BUR.

33. For the agriculture sector, Brazil reported GHG emissions of 12,942.23 kt CH_4 and 491.1 kt N_2O, where the reporting included the subcategories enteric fermentation, manure management, rice cultivation, burning of crop residues and agricultural soils. The TTE commends Brazil for the improvement in its reporting on the agriculture sector, particularly the development of country-specific EFs for cattle. Some sources for AD and EFs were not reported in the BUR. During the technical analysis, Brazil provided additional information regarding the sources for AD and EFs.

34. For the LULUCF sector, Brazil reported GHG emissions and removals for 1990–2012, including the five pools for the six Brazilian biomes. The TTE commends Brazil for this effort. The TTE noted that in the third national inventory Brazil presented updated AD and EFs as a result of new national information gathered and a refined classification of land use/coverage. The TTE also noted that Brazil applied this national information allowing the use of more detailed methodologies from the 2006 IPCC Guidelines. The TTE commends Brazil for these improvements.

35. For the waste sector, Brazil reported emissions of 227.0 kt CO_2, 2,595.4 kt CH_4 and 7.5 kt N_2O in 2012. In the BUR, emissions from precursor gases and notation keys were not reported.

36. Brazil included in its BUR an update of its third national communication for the years 2011 and 2012, which addressed anthropogenic GHG emissions and removals for the period 1990–2010 and was prepared using the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF, as well as values from the 2006 IPCC Guidelines.

37. Brazil described in its BUR the role of the institutions involved in the preparation of its 2012 GHG inventory. The Ministry of Science, Technology, Innovations and Communications (MCTIC) is the main coordinator for the elaboration of Brazil's GHG inventory. MCTIC also developed the national emissions registry system (known as SIRENE), which aims to maintain continuity and accessibility of the results of the GHG inventories. During the technical analysis, Brazil explained the procedures and arrangements in place to collect and archive data. The TTE commends the Party for the implementation of this new system, but notes that this information had not been included in the BUR. The TTE

[3] Non-Annex I Parties should, to the extent possible, and if disaggregated data are available, estimate and report CO_2 fuel combustion emissions using both the sectoral and reference approaches and explain any large differences between the two approaches.

notes that including this information in the BUR could help to improve the transparency of the report.

38. Brazil did not report a key category analysis in its second BUR or in its third national communication. Those reports did not provide information on quality assurance/quality control measures for any sectors. During the technical analysis, Brazil explained that for quality control procedures it counts on the assistance of a team of experts who work closely with the institutions assigned for each sector and that the team performs the review of calculations, methodological suitability, results and data security, and frequently suggests innovations to the spreadsheets, to improve documentation. Regarding quality assurance measures, the Party stated that those are implemented through public consultation with specialists not previously involved in the work, and by the provision of the calculation memory and the sectoral reference reports for analysis and consideration, in terms of changes or corrections, whenever any inconsistency is identified. The consultation is public, via the Internet, and some specialists are invited to work on this. During the technical analysis, Brazil explained the prioritization of categories and described the measures taken to achieve quality assurance/quality control. The TTE notes that including this information in the BUR could help to improve the transparency of the report.

39. Brazil reported information on CO_2 fuel combustion using both the sectoral and reference approaches, along with an examination of any large differences for the period 1990–2010 in its third national communication; however, this information is not reported in the BUR for the year 2012.

40. Information was reported on international aviation and marine bunker fuels.

41. Brazil reported information on its use of global warming potential values consistent with those provided by the IPCC in its Second Assessment Report based on the effects of GHGs.

42. Brazil did not report information on the uncertainty assessment (level) for 2012 in its BUR. The uncertainty analysis was reported in the third national communication, which is referred to in the second BUR, and was made for the year 2010 using the Monte Carlo approach for the waste treatment sector and using the simplified approach of the IPCC good practice guidance for other sectors. Owing to the importance of CO_2, CH_4 and N_2O, the analysis covered only those three gases. The TTE noted that the transparency of the reporting would be enhanced if information on the uncertainty assessment for the 2012 inventory were reported in the BUR.

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

43. Table 2 in annex I presents the results of the identification of the extent to which the elements of information on mitigation actions, contained in paragraphs 11–13 of the UNFCCC reporting guidelines on BURs, are included in the second BUR of Brazil.

44. The information reported provides an overview of Brazil's mitigation actions and their effects. In its BUR, Brazil presents updated information on its nationally appropriate mitigation actions (NAMAs) communicated to the UNFCCC (see document FCCC/AWGLCA/2011/INF.1), in the context of Brazil's PNMC. The PNMC, enacted in 2009, is the legal framework for actions to address climate change in Brazil. It contains Brazil's national voluntary commitment of an expected emission reduction of between 36.1 and 38.9 per cent below the projected 'business as usual' level in 2020. It also contains Brazil's national plan on climate change, including sectoral action plans to implement its mitigation actions. The PNMC also establishes a governance structure to implement the PNMC.

45. Consistent with decision 2/CP.17, annex III, paragraph 11, Brazil presented eight mitigation actions in tabular format. They relate to the following sectors: agriculture, LULUCF, industrial processes and energy. Brazil's mitigation actions include:

(a) The National Plan for Low-Carbon Emissions in Agriculture (the ABC Plan), which aims to increase the area under sustainable agriculture production systems;

(b) The Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAm), which promotes the continuous and consistent reduction of deforestation in the Amazon region;

(c) The Action Plan for the Prevention and Control of Deforestation and Forest Fires in the Cerrado Biome (PPCerrado), which promotes the continuous reduction of the rate of deforestation and forest degradation, as well as the incidence of forest fires in the Cerrado biome;

(d) Sustainable charcoal for iron and steel production in the IPPU sector, which promotes the sustainable production of charcoal used as an input in the production of pig iron;

(e) Increase in the supply of energy by means of hydroelectric plants, which has the goal of increasing the share of hydroelectric power in the national energy mix;

(f) Use of alternative energy sources, which has as its main goal increasing the share of alternative sources in the national energy mix, such as wind power plants, small hydroelectric power stations and electricity generation from biomass to replace the implementation of thermoelectric plants;

(g) Increase in the use of biofuels, which involves the rise in the supply of anhydrous and hydrated ethanol, as well as biodiesel, to replace fossil fuels in the national energy mix;

(h) Implementation of energy efficiency, which has as its main goal reducing the consumption of fossil fuels and electric power through the increase of energy efficiency in different sectors of the economy.

46. Brazil provided transparent information on the main objectives of its mitigation actions, including information on the coverage (sectors and gases) and progress indicators. During the technical analysis, Brazil clarified the quantitative goals and the relationship between its 11 NAMAs (contained in document FCCC/AWGLCA/2011/INF.1) and the eight mitigation actions in its BUR.[4] The TTE notes that the transparency of the information reported would be enhanced if Brazil provided this information in its next BUR.

47. Regarding paragraph 12(b) of the UNFCCC reporting guidelines on BURs, during the technical analysis, Brazil provided information on methodologies and assumptions adopted for the preparation of the BUR, including the provision of additional data sources. The TTE notes that including this information in the BUR[5] could help to improve the understanding of this issue. The TTE also noted that Brazil includes detailed information on the specific objectives in relation to its mitigation actions, along with the steps taken or envisaged to achieve these actions. The TTE commends Brazil for this transparent reporting, in particular for including additional "specific objectives" related to PPCerrado, compared with its first BUR.

48. Brazil included qualitative and quantitative information on the progress of implementation of most of its mitigation actions. Brazil uses a wide range of metrics, including the number of megawatts of installed power capacity, hectares of protected areas, the establishment of satellite monitoring systems, and so on. The TTE commends Brazil for including additional quantitative information on progress achieved in relation to PPCerrado compared with that in Brazil's first BUR. The TTE noted that Brazil does not include

[4] The PPCDAm corresponds to paragraph 30(a) of document FCCC/AWGLCA/2011/INF.1; the PPCerrado corresponds to paragraph 30(b) of document FCCC/AWGLCA/2011/INF.1; the ABC Plan corresponds to paragraph 30(c–f) of document FCCC/AWGLCA/2011/INF.1; "Implementation of energy efficiency" corresponds to paragraph 30(g) of document FCCC/AWGLCA/2011/INF.1; "Increased use of biofuels" corresponds to paragraph 30(h) of document FCCC/AWGLCA/2011/INF.1; "Increase in the supply of energy by means of hydroelectric plants" corresponds to paragraph 30(i) of document FCCC/AWGLCA/2011/INF.1; "Use of alternative energy sources" corresponds to paragraph 30(j) of document FCCC/AWGLCA/2011/INF.1; and "Sustainable charcoal for iron and steel production" corresponds to paragraph 30(k) of document FCCC/AWGLCA/2011/INF.1.

[5] For each mitigation action or group of mitigation actions, including, as appropriate, those listed in document FCCC/AWGLCA/2011/INF.1, developing country Parties shall provide information on methodologies and assumptions to the extent possible.

quantitative information on the annual rate of deforestation for PPCDAm and PPCerrado. During the interaction with the TTE, Brazil explained that it measures achievements for PPCDAm using the Amazon Deforestation Monitoring Project, and that the reduction of deforestation is a consequence of a series of factors, including those reflected in the "specific objectives" and "progress achieved" sections of the second BUR for this mitigation action, and highlighted the challenges of disaggregating and attributing the specific impact of policies on the rate of deforestation.

49. The TTE further noted that Brazil does not provide quantified estimates of GHG emission reductions for its mitigation actions, including for those NAMAs contained in document FCCC/AWGLCA/2011/INF.1, which specify a "range of estimated reduction". During the technical analysis, Brazil clarified that it does not intend to present results from mitigation actions in tonnes of GHG emissions because of the difficulties in quantifying these impacts, and that the ranges of estimated reductions for actions contained in document FCCC/AWGLCA/2011/INF.1 are indicative. Brazil further clarified that information on quantitative goals of mitigation actions has been provided in the BUR, as appropriate, while other actions are qualitative in nature or use other indicators. The TTE notes that the transparency of the information on progress of implementation reported would be enhanced if Brazil were to provide quantitative information on the annual rate of deforestation and the estimated GHG emission reductions of its mitigation actions in its next BUR.[6]

50. Brazil provided information on its involvement in international market mechanisms as a Party to the Kyoto Protocol. As of December 2015, Brazil has documented 339 clean development mechanism (CDM) projects registered by the CDM Executive Board, equivalent to 4.4 per cent of the world's total. Most of the projects were of the following types: hydropower; biogas; wind power; landfill gas; and biomass energy. These projects would result in an estimated GHG emission reduction totalling 373,959,177 t CO_2 eq. The TTE commends Brazil for providing this information.

51. Brazil provided information on its planned domestic MRV arrangements related to mitigation actions. As reported in the BUR, Brazil is in the process of revising its Modular System for Monitoring Actions and GHG Emission Reductions (SMMARE). SMMARE will be revised in 2017 in the light of Brazil's nationally determined contribution, the Paris Agreement and lessons learned from implementing existing MRV arrangements.

4. Cross-cutting domestic measurement, reporting and verification

52. As indicated in table 2 in annex I, Brazil reported in its BUR, in accordance with paragraph 13 of the UNFCCC reporting guidelines on BURs, a description of its domestic MRV arrangements (namely SMMARE and MRV of actions, as well as SIRENE, which is categorized by the Party as an MRV system for emissions at an aggregated level). As domestic MRV arrangements are centred on mitigation, specific information was submitted in the BUR in the mitigation section. During the technical analysis, Brazil further explained that, although initially focused on mitigation, Brazil is considering expanding the scope of its MRV system to other relevant thematic areas. The TTE commends Brazil for these efforts.

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

53. As indicated in table 3 in annex I, Brazil reported in its BUR, mostly in accordance with paragraphs 14–16 of the UNFCCC reporting guidelines on BURs, information on finance, technology and capacity-building needs and support received. Brazil reported, in a tabular format, on technical, capacity-building and financial support needs.

54. In the BUR, the information on support needed and received was presented in an aggregated manner, without any distinction of the financial, technical, technology and capacity-building components. During the technical analysis, Brazil explained that it was not

[6] For each mitigation action or group of mitigation actions, including, as appropriate, those listed in document FCCC/AWGLCA/2011/INF.1, developing country Parties shall provide information on the results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible.

possible to report separately the finance streams used exclusively for technology transfer or for capacity-building. Further information therefore is not readily available and would demand a project-by-project assessment, which would not be feasible. Brazil added that there are no methodologies or specific guidance from the UNFCCC on how technology transfer and capacity-building should be reported. Brazil further explained that limitations and challenges in reporting disaggregated data on technology transfer and capacity-building are widespread and that flexibility is needed to take into account such challenges and limitations. The TTE recognizes these challenges and commends Brazil for the efforts made to provide very disaggregated information on financial resources received in the light of existing limitations.

55. On technology needs, Brazil explained that information was not reported in the BUR because an exhaustive and complete assessment would need international financial support, which was not provided.

56. On financial resources, technology transfer, capacity-building and technical support received, building upon the information presented in the first BUR, Brazil provides information in its second BUR on public resources committed to Brazilian entities through multilateral institutions and through bilateral channels by Parties included in Annex II to the Convention in the years 2014 and 2015, which was presented in a tabular format and in a disaggregated manner. As explained by Brazil during the technical analysis, given the difficulty of accessing project-level information on the disbursement of funds, it decided to use the date of the commitment of the resources as a reference for its inclusion in the list.

57. In terms of capacity-building needs, Brazil expressed during the technical analysis that "capacity" is not only related to technical capabilities, but also to the complexity of the nature and availability of the data, as well as the time demanded to produce results, which are directly linked to the level of financial support received. Brazil also stated that, rather than capacity-building, financial and technical support are more relevant in the context of a more comprehensive transparency tool to be applied.

58. Brazil recognizes that, in collecting the data, information from multilateral institutions proved to be much more transparent, accessible, complete and comparable than the information available from bilateral flows. Because of these constraints, the information on the bilateral channels only includes resources that were internalized through a public entity or implemented under the coordination of a public entity. For most bilateral resources, there was no readily available assessment of the climate-specific component. To avoid double counting, projects whose main objective was not mitigation or adaptation were considered to have less than 100 per cent of their foreign resources accounted for as climate finance. Likewise, for projects with a stated principal objective of both mitigation and biodiversity, as per the Organisation for Economic Co-operation and Development Rio markers attribution given by the donor, 50 per cent of the resources received were accounted for as the climate-specific component. The TTE commends Brazil for the substantial improvement of the information provided compared with the first BUR.

D. Identification of capacity-building needs

59. The TTE noted that, in its second BUR, Brazil did not identify any capacity-building needs related to the facilitation of the preparation of subsequent BURs and participation in ICA but informed the TTE that such preparation and participation depend on the financial support received.

60. During the technical analysis, the TTE considered that the preparation of subsequent BURs and participation in the ICA process could be facilitated by:

(a) Collecting project-level information on the disbursement of funds, and on collecting and assessing information from bilateral flows;

(b) Providing additional information on different databases and arrangements made in order to strengthen the reporting on institutional MRV arrangements;

(c) Quantifying the actual and expected impact of mitigation actions.

61. Brazil noted during the consultation with the TTE that capacity is not only related to technical capabilities, but also to the complexity of the nature and availability of the data, as well as the time demanded to produce results, which are directly linked to the level of financial and technological support received. In this regard, the Party highlighted the importance of addressing capacity-building together with technology and financial support.

62. The TTE noted that no capacity-building needs were identified by Brazil in its first BUR 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. During the technical analysis, the TTE in consultation with the Party considered that the preparation of subsequent BURs and participation in the ICA process could be facilitated by collecting project-level information on the disbursement of funds, and on collecting and assessing information from bilateral flows; providing additional information on different databases and arrangements to strengthen the reporting on institutional MRV arrangements; and quantifying the actual and expected impact of mitigation actions.

III. Conclusions

63. The TTE conducted a technical analysis of the information reported in the second BUR of Brazil in accordance with the UNFCCC reporting guidelines on BURs. The TTE concludes that the reported information is mostly consistent with the UNFCCC reporting guidelines on BURs and provides an overview of national circumstances and institutional arrangements relevant to the preparation of national communications on a continuous basis; the national inventory of anthropogenic emissions by sources and removal by sinks of all GHGs not controlled by the Montreal Protocol; mitigation actions and their effects; constraints and gaps, and related financial, technical and capacity-building needs, including a description of support needed and received; the level of support received to enable the preparation and submission of BURs; and domestic MRV. During the technical analysis, additional information was provided by Brazil on the areas mentioned above.

64. Brazil reported information on the institutional arrangements relevant to the preparation of BURs. The TTE commends Brazil for the progress made and noted that the plans to improve the overall MRV system of GHG emissions and reductions, as outlined in its BUR, would continue to contribute to achieving sustainable reporting.

65. In its second BUR, submitted on 3 March 2017, Brazil reported information on its national GHG inventory for the years 1994, 2000, 2010 and 2012. This included GHG emissions and removals of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6 for all relevant sources and sinks, as well as precursor gases such as NO_X, CO and NMVOCs. The inventory was developed based on the Revised 1996 IPCC Guidelines, although in some cases the IPCC good practice guidance and the IPCC good practice guidance for LULUCF as well as specific values from the 2006 IPCC Guidelines were applied for individual categories.

66. Brazil reported information on mitigation actions and their effects, in the context of its national voluntary commitment of an expected emission reduction of between 36.1 and 38.9 per cent below the projected 'business as usual' level in 2020. Brazil presents updated information on eight NAMAs communicated to the UNFCCC (see document FCCC/AWGLCA/2011/INF.1). The mitigation actions relate to the following sectors: agriculture, LULUCF, industrial processes and energy. Brazil includes detailed information on the objectives in relation to its mitigation actions, which include the following: increase the area under sustainable agricultural production systems; promote the continuous and consistent reduction of deforestation in the Amazon region (by reducing the annual rate of deforestation by 80 per cent by 2020); promote the continuous reduction of the rate of deforestation and forest degradation in the Cerrado biome; promote sustainable production of charcoal used in the production of pig iron; increase the share of hydroelectrical power in the national energy mix; increase the share of alternative sources of energy in the national mix; and increase the supply of ethanol and biodiesel. Brazil also includes detailed qualitative and quantitative information on the progress of implementation of its mitigation actions using a wide range of metrics, including the number of megawatts of installed power capacity,

hectares of protected areas, the establishment of satellite monitoring systems, and so on. Brazil does not provide quantified estimates of GHG emissions reduced for its mitigation actions, including for those NAMAs contained in document FCCC/AWGLCA/2011/INF.1, which specify a "range of estimated reduction".

67. Brazil reported information on key constraints, gaps and related needs. During the technical analysis, Brazil provided additional information on key challenges and needs, namely designing and implementing a systematic methodology for identifying constraints, gaps and needs. Information on support received and needed was reported. Brazil also reported the challenge of establishing a standardized and sustainable system for monitoring the financial support received in a disaggregated manner. Information on nationally determined technology needs was not reported in the BUR because an exhaustive and complete assessment would need international financial support, which was not provided.

68. The TTE noted that no capacity-building needs were identified by Brazil 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. Brazil noted during the consultation with the TTE that capacity is not only related to technical capabilities, but also to the complexity of the nature and availability of the data, as well as the time demanded to produce results, which are directly linked to the level of financial and technological support received. In this regard, the Party highlighted the importance of addressing capacity-building together with technology and financial support.

Annex I

Extent of the information reported by Brazil in its second biennial update report

Table 1
Identification of the extent to which the elements of information on greenhouse gases are included in the second biennial update report of Brazil

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No/NA*[a]	*Comments on the extent of the information provided*
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, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years	No	Brazil submitted its second BUR in March 2017 and the GHG inventory reported is for 2012, nearly two years and two months after the submission of its first BUR, because of delays in translation and designing the final document related to the negotiations at COP 22 in Marrakech (7–18 November 2016) and to the time of the year, as explained by the Party during the technical analysis
Decision 2/CP.17, annex III, paragraph 4	Non-Annex I Parties should use the methodologies established by the latest UNFCCC guidelines for the preparation of national communications from non-Annex I Parties approved by the COP or those determined by any future decision of the COP on this matter	Yes	Brazil used a combination of the Revised 1996 IPCC Guidelines, the IPCC good practice guidance, the IPCC good practice guidance for LULUCF and the 2006 IPCC Guidelines
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	No	The 2011 and 2012 updates of the GHG inventory did not contain updated data on activity levels
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 inventory section of the BUR:		
	(a) Tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF	No	These tables were not reported; however, Brazil reported other data related to the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF. As explained by Brazil during the technical analysis, a very large number of categories were considered in the national inventory, which would increase the quantity of tables needed to comply with the format of the IPCC good practice guidance for LULUCF

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No/NA*[a]	*Comments on the extent of the information provided*
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines	No	These tables were not reported for 2012. Brazil reported information in summary tables in chapter 2 of the BUR
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	Yes	
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)	Yes	This information is reported for the years 1994, 2000 and 2010
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)	Partly	The summary table (table VII) with sectoral totals was reported. However, it did not include the emissions and removals by subsector and/or category
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF_6)	Partly	The summary table (table VII) with sectoral totals was reported. However, it did not include the emissions and removals by subsector and/or category
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex	Yes	The Party submitted a REDD-plus[b] technical annex as an annex to its BUR
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	Partly	The Party has a system in place, but specific information on the procedures and arrangements undertaken to collect and archive data was not reported in the second BUR
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:		
	(a) CO_2	Yes	
	(b) CH_4	Yes	
	(c) N_2O	Yes	
Decision 17/CP.8, annex,	Non-Annex I Parties are encouraged, as appropriate, to provide information on anthropogenic emissions by sources of:		

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No/NA*[a]	*Comments on the extent of the information provided*
paragraph 15			
	(a) HFCs	Yes	
	(b) PFCs	Yes	
	(c) SF_6	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	Yes	
	(b) NO_X	Yes	
	(c) NMVOCs	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	No	As explained by Brazil during the technical analysis, the Party did not consider it appropriate to its needs to report on emissions of SO_X, which may be included at the discretion of Parties
Decision 17/CP.8, annex, paragraph 18	Non-Annex I Parties are encouraged, to the extent possible, and if disaggregated data are available, to estimate and report CO_2 fuel combustion emissions using both the sectoral and the reference approach, and to explain any large differences between the two approaches	Yes	
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	Yes	
	(b) Marine bunker fuels	Yes	
Decision 17/CP.8, annex, paragraph 20	Non-Annex I Parties wishing to report on aggregated GHG emissions and removals expressed in CO_2 eq should use the GWP provided by the IPCC in its Second Assessment Report based on the effects of GHGs over a 100-year time-horizon	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		

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No/NA*[a]	*Comments on the extent of the information provided*
	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 and removals by sinks of GHGs not controlled by the Montreal Protocol	Partly	Brazil used a combination of the Revised 1996 IPCC Guidelines and the 2006 IPCC Guidelines. Information on tiers applied for the different sectors was not reported and the level of description of methodologies varies among categories in the BUR. Further information was submitted during the technical analysis week
	(b) Explanation of the sources of emission factors	Partly	The sources of emission factors were not reported in the BUR for some categories. Further information was submitted during the technical analysis week
	(c) Explanation of the sources of activity data	Partly	The sources of activity data were not reported in the BUR for some categories. Further information was submitted during the technical analysis week
	(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:	NA	
	(i) Source and/or sink categories		
	(ii) Methodologies		
	(iii) Emission factors		
	(iv) Activity data		
	(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building	No	
Decision 17/CP.8, annex, paragraph 22	Each non-Annex I Party is encouraged to use tables 1 and 2 of the guidelines annexed to decision 17/CP.8 in reporting its national GHG inventory, taking into account the provisions established in paragraphs 14–17. In preparing those tables, Parties should strive to present information which is as complete as possible. Where numerical data are not provided, Parties should use the notation keys as indicated	Partly	Brazil used a table with sectoral totals, which included notation keys. However, it did not report tables 1 or 2, which are lists of the emissions and removals by subsector and/or category
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:		

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No/NA*[a]	*Comments on the extent of the information provided*
	(a) Level of uncertainty associated with inventory data	Partly	Levels of uncertainty for the years 2011 and 2012 were not reported
	(b) Underlying assumptions	Yes	
	(c) Methodologies used, if any, for estimating these uncertainties	Yes	

Note: The parts of the "UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention" 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. 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.

Abbreviations: 2006 IPCC Guidelines = *2006 IPCC Guidelines for National Greenhouse Gas Inventories*, BUR = biennial update report, COP = Conference of the Parties, GHG = greenhouse gas, GWP = global warming potential, 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, Revised 1996 IPCC Guidelines = *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*.

[a] This table presents the results of the identification of the extent to which the elements of information on GHGs are included in the second BUR of the Party concerned, as contained in paragraphs 3–10 of the "UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention" and paragraphs 8–24 of the "Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention". It does not take into account the legal nature of each reporting provision. Technical information that may be provided by the Party concerned during the technical analysis is analysed as per paragraph 15(b) of the annex to decision 20/CP.19.

[b] In decision 1/CP.16, paragraph 70, the COP encouraged developing country Parties to contribute to mitigation actions in the forest sector by undertaking the following activities: reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks.

Table 2
Identification of the extent to which the elements of information on mitigation actions are included in the second biennial update report of Brazil

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No*[a]	*Comments on the extent of the information provided*
Decision 2/CP.17, annex III, paragraph 11	Non-Annex I Parties should provide information, in a tabular format, on actions to mitigate climate change, by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol	Yes	
Decision 2/CP.17, annex III, paragraph 12	For each mitigation action or group 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	Yes	
	(b) Information on:		
	(i) Methodologies	Partly	Although Brazil provided information during the technical analysis on methodologies adopted for the preparation of the BUR, the BUR does not contain information on methodologies for all eight mitigation actions
	(ii) Assumptions	Partly	Although Brazil provided information during the technical analysis on assumptions adopted for the preparation of the BUR, the BUR does not contain information on assumptions for all eight mitigation actions
	(c) Information on:		
	(i) Objectives of the action	Yes	
	(ii) Steps taken or envisaged to achieve that action	Yes	The steps taken or envisaged are included in the mitigation section of the BUR under “specific objectives” for each mitigation action, as clarified by Brazil during the technical analysis
	(d) Information on the:		
	(i) Progress of implementation of the mitigation actions	Yes	
	(ii) Progress of implementation of the underlying steps taken or envisaged	Yes	
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible	Yes	The Party reported in its BUR the results achieved using different indicators, but not quantified GHG emission reductions. During the technical analysis, Brazil clarified that it does not intend to provide quantitative information on actual and expected GHG impacts because of the challenge of quantifying those impacts

Decision	*Provision of the reporting guidelines*	*Yes/ Partly/No*[a]	*Comments on the extent of the information provided*
	(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	Brazil reported on its domestic measurement, reporting and verification system for mitigation actions

Note: The parts of the "UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention" on the reporting of information on mitigation actions in BURs are contained in decision 2/CP.17, annex III, paragraphs 11–13.

Abbreviations: BUR = biennial update report, GHG = greenhouse gas.

[a] This table presents the results of the identification of the extent to which the elements of information on mitigation actions and their effects are included in the second BUR of the Party concerned as contained in paragraphs 11–13 of the "UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention". It does not take into account the legal nature of each reporting provision. Technical information that may be provided by the Party concerned during the technical analysis is analysed as per paragraph 15(b) of the annex to decision 20/CP.19.

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 second biennial update report of Brazil

Decision	*Provision of the reporting requirements*	*Yes/ Partly/No*	*Comments on the extent of the information provided*
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on:		
	(a) Constraints and gaps	Yes	
	(b) Related financial, technical and capacity-building needs	Yes	
Decision 2/CP.17, annex III, paragraph 15	Non-Annex I Parties should provide:		
	(a) Information on financial resources received	Yes	Brazil reported the information on support in an aggregated manner in the BUR
	(b) Information on technology transfer	Yes	
	(c) Information on capacity-building received	Yes	
	(d) Information on technical support received from the Global Environment Facility, Parties included in Annex II to the Convention 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:		
	(a) Technology needs, which are nationally determined	Partly	Owing to the lack of international financial support, Brazil was not able to conduct the technology needs assessment it had mentioned in its first BUR
	(b) Technology support received	Partly	Brazil reported in its BUR that technology support might be a component of one of several projects reported under financial support received

Note: The parts of the "UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention" on the reporting of information on finance, technology and capacity-building needs and support received in BURs are contained in decision 2/CP.17, annex III, paragraphs 14–16.

Abbreviation: BUR = biennial update report.

Annex II

Documents and information used during the technical analysis

Reference documents

Intergovernmental Panel on Climate Change. 1997. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. JL Houghton, LG Meira Filho, B Lim, et al. (eds.). Paris, France: Intergovernmental Panel on Climate Change/Organisation for Economic Co-operation and Development/International Energy Agency.
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Available at http://www.ipcc-nggip.iges.or.jp/public/2006gl.

"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 Brazil. Available at http://unfccc.int/8722.php.

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