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Technical analysis of the second biennial update report of Costa Rica submitted on 23 December 2019

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, consistently with their capabilities and the level of support provided for reporting, were to submit their first biennial update report by December 2014. Further, paragraph 41(f) of that decision states that Parties not included in Annex I to the Convention shall submit a biennial update report 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 biennial update reports at their discretion. This summary report presents the results of the technical analysis of the second biennial update report of Costa Rica, 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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Abbreviations and acronyms

AD	activity data
AFOLU	agriculture, forestry and other land use
BUR	biennial update report
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
EEA	European Environment Agency
EF	emission factor
EMEP	European Monitoring and Evaluation Programme
GEF	Global Environment Facility
GHG	greenhouse gas
HFC	hydrofluorocarbon
HWP	harvested wood products
ICA	international consultation and analysis
IPCC	Intergovernmental Panel on Climate Change
IPCC good practice guidance	<i>Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories</i>
IPCC good practice guidance for LULUCF	<i>Good Practice Guidance for Land Use, Land-Use Change and Forestry</i>
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
NA	not applicable
NAMA	nationally appropriate mitigation action
NC	national communication
NDC	nationally determined contribution
NIR	national inventory report
NO	not occurring
non-Annex I Party	Party not included in Annex I to the Convention
N ₂ O	nitrous oxide
PFC	perfluorocarbon
QA/QC	quality assurance/quality control
Revised 1996 IPCC Guidelines	<i>Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories</i>
SF ₆	sulfur hexafluoride
SINAMECC	National Climate Change Metrics System of Costa Rica
TTE	team of technical experts
UNFCCC guidelines for the preparation of NCs from non-Annex I Parties	“Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention”
UNFCCC reporting guidelines on BURs	“UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention”
2006 IPCC Guidelines	<i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>

I. Introduction and process overview

A. Introduction

1. The process of ICA consists of two steps: a technical analysis of the submitted BUR and a facilitative sharing of views under the Subsidiary Body for Implementation, resulting in a summary report and a record, respectively.
2. According to decision 2/CP.17, paragraph 41(a), non-Annex I Parties, consistently with their capabilities and the level of support provided for reporting, were to submit their first BUR by December 2014. In addition, 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 NC in the year in which the NC is submitted or as a stand-alone update report. The least developed countries and small island developing States may submit BURs at their discretion.
3. Further, according to paragraph 58(a) of the same decision, the first round of ICA is to commence for non-Annex I Parties within six months of the submission of the Parties' first BUR. The frequency of developing country Parties' participation in subsequent rounds of ICA, depending 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 Costa Rica has been subject to technical analysis by two LULUCF experts as part of the technical analysis of the Party's BUR.
5. Costa Rica submitted its first BUR on 9 December 2015, which was analysed by a TTE in the fourth round of technical analysis of BURs from non-Annex I Parties, conducted from 29 February to 4 March 2016. After the publication of its summary report, Costa Rica participated in the second workshop for the facilitative sharing of views, convened in Marrakech on 10 November 2016.
6. This summary report presents the results of the technical analysis of the second BUR of Costa Rica, 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 Costa Rica in the context of results-based payments in accordance with paragraphs 7–8 of decision 14/CP.19, referred to in paragraph 4 above, is contained in document FCCC/SBI/ICA/2019/TATR.1/CRI.

B. Process overview

7. In accordance with the mandate referred to in paragraph 2 above, Costa Rica submitted its second BUR on 23 December 2019 as a stand-alone update report. The submission was made four years after the submission of the previous BUR.
8. During the technical analysis, the Party clarified that its second BUR could not be submitted two years after its first owing to the time taken by the GEF to approve the project proposal for its preparation.
9. A desk analysis of Costa Rica's BUR was conducted from 9 to 13 March 2020¹ 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: Kwame Agyei

¹ Owing to the circumstances related to the coronavirus disease 2019, the technical analysis of the BUR submitted by Costa Rica had to be conducted remotely.

(Ghana), Laura María Aranguren Niño (Colombia), Kenel Delusca (member of the Consultative Group of Experts from Haiti), Jenny Mager Santos (Chile), Jorge Eduardo Morfin Ríos (Mexico), Elisabeth Pagnac-Farbiaz (France), Lilian Portillo (former member of the Consultative Group of Experts from Paraguay), Marcelo Rocha (Brazil), Atsushi Sato (Japan), Ines Sousa Mourao (Cabo Verde) and Sina Wartmann (Germany). Mr. Rocha and Ms. Wartmann were the co-leads. The technical analysis was coordinated by Karen Ortega and Roman Payo (secretariat).

10. 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 Costa Rica engaged in consultation² on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of Costa Rica's second BUR, the TTE prepared and shared a draft summary report with Costa Rica on 17 June 2020 for its review and comment. Costa Rica, in turn, provided its feedback on the draft summary report on 24 September 2020.

11. The TTE responded to and incorporated Costa Rica's comments referred to in paragraph 10 above and finalized the summary report in consultation with the Party on 16 October 2020.

II. Technical analysis of the biennial update report

A. Scope of the technical analysis

12. 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 chap. II.B below);

(b) A technical analysis of the information reported in the BUR, specified in the UNFCCC reporting guidelines on BURs (decision 2/CP.17, annex III), and any additional technical information provided by the Party concerned (see chap. 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 chap. II.D below).

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

B. Extent of the information reported

14. The elements of information referred to in paragraph 12(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 information on progress in their implementation; information on domestic MRV; and information on support needed and received.

15. 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 14 above have been included in the BUR of the Party concerned. The TTE considers that the reported information is mostly consistent with the

² The consultation was conducted via teleconferencing.

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

16. The TTE noted improvements in the reporting in the Party's second BUR compared with that in the previous BUR analysed. Information on national circumstances, mitigation actions and their effects, and needs and support reported in the Party's second BUR demonstrates that it has taken into consideration the areas for enhancing transparency noted by the previous TTE in the summary report on the technical analysis of the Party's first BUR.

C. Technical analysis of the information reported

17. The technical analysis referred to in paragraph 12(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 focus of the technical analysis was on the transparency of the information reported in the BUR.

18. 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 IPCC and referred to in the UNFCCC reporting guidelines on BURs.

19. 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

20. 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 NC, including information on national circumstances and institutional arrangements relevant to the preparation of NCs on a continuous basis. In their NCs, non-Annex I Parties report on their national circumstances following the reporting guidance contained in decision 17/CP.8, annex, paragraphs 3–5, and they could report similar information in their BUR, which is an update of their most recently submitted NC.

21. In its second BUR, Costa Rica provided an update on its national circumstances, including information on its administrative political structure, climate and hydrographic profiles, demography, access by its citizens to public services and economic profile at the national and sectoral level.

22. In addition, Costa Rica provided a summary of relevant information regarding its national circumstances in tabular and graphical format (including tables and figures on its population, demographic profile, efforts made with respect to Sustainable Development Goal indicators, and preschool, primary and secondary education).

23. Costa Rica mostly transparently reported in its second BUR an update on its institutional arrangements relevant to the preparation of its BURs on a continuous basis. The Ministry of Environment and Energy was identified as the governmental body responsible for approving the BURs, a role it has delegated to its Climate Change Directorate. The description covers key aspects of the institutional arrangements, including the legal status of the ratification of the Convention in 1992, the roll-out of the Carbon Neutrality Country Programme in 2007, the ratification of the Paris Agreement in 2016, and Costa Rica's NDC, wherein its target is to limit net annual emissions to 9,374.00 Gg CO₂ eq by 2030 (see para. 63 below). This target equates to a reduction in GHG emissions of 44 per cent compared with the 'business as usual' scenario and 25 per cent compared with the 2012 level, and means that Costa Rica will need to reduce its emissions by 170.50 Gg CO₂ eq per year until 2030. The National Meteorological Institute is in charge of drafting the BURs, except for the chapters on mitigation actions and their effects and on finance, technology and capacity-building needs and support received, which are drafted by the Climate Change Directorate. Coordination between the Directorate and Institute in preparing the BURs is facilitated by the Secretariat of Sectoral Planning for the Environment, Energy, Seas and Land-use Management. The Party reported on public consultation and other forms of stakeholder engagement, highlighting engagement of women. It also reported on the roles of institutions,

experts and data providers, as well as on information and data exchange, in preparing BURs on a continuous basis. The TTE acknowledges planned improvements to the information to be reported in the next BUR, as well as plans for establishing a registry for mitigation actions, strengthening institutional arrangements for data exchange and enhancing QA/QC processes for preparing BURs.

24. However, it was not clear from the description whether the institutional arrangements also apply to the preparation of NCs. During the technical analysis, the Party confirmed that the institutional arrangements reported in its second BUR apply to the preparation of both NCs and BURs on an ongoing basis.

25. In paragraph 23 of the summary report on the technical analysis of the Party's first BUR, the previous TTE noted areas where the transparency of the reporting on national circumstances and cross-cutting issues relevant to the preparation of BURs on a continuous basis could be further enhanced, namely by including a more detailed description of the institutional arrangements, as well as information on how the arrangements enable the preparation of BURs on a continuous basis, the support needed to ensure continuity, the mechanisms for information and data exchange, QA/QC procedures, and public consultation and other forms of stakeholder engagement. The current TTE noted the improvements referred to in paragraph 24 above and commends the Party for enhancing the transparency of its reporting.

26. Costa Rica reported in its second BUR an update on its domestic MRV arrangements. The description covers key aspects of SINAMECC, the centralized domestic MRV system for mitigation actions, including the recent progress in designing, consolidating and launching it. SINAMECC was specifically designed to facilitate Costa Rica's compliance with the enhanced transparency framework under Article 13 of the Paris Agreement and to improve data-based decision-making in order to meet the challenges of the climate crisis. The design philosophy was impact-oriented, and the system is based on open-source software so that it can be shared with other countries and thereby help build an international community of practice for MRV. This community can work together to maintain and improve the system, saving resources and improving South-South cooperation. One of the key characteristics of SINAMECC is that it brings together mitigation, adaptation and support under a single system for MRV and ensuring transparency. It is intended to interact with other national systems that monitor climate change parameters, such as the National Land Cover and Ecosystem Monitoring System and the National Territorial Information System.

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

27. As indicated in table I.1, Costa Rica reported information on its GHG inventory in its BUR mostly in accordance with paragraphs 3–10 of the UNFCCC reporting guidelines on BURs and paragraphs 8–24 of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties, contained in the annex to decision 17/CP.8.

28. Costa Rica submitted its second BUR in 2019 and the GHG inventory reported is for 2015. The GHG inventory is consistent with the requirements for the reporting time frame.

29. Costa Rica referenced its NIR in its BUR and submitted the NIR as an additional document during the technical analysis on 5 March 2020 (and via the UNFCCC submission portal on 11 March 2020). The TTE noted that the Party submitting the NIR at the same time as the BUR could facilitate a better understanding by the TTE of the information reported.

30. GHG emissions and removals for the BUR covering the 2015 inventory were estimated using mostly tier 1 and 2 methodologies from the 2006 IPCC Guidelines, although emissions from international aviation were estimated using tier 3 methodology. The TTE commends Costa Rica for using the 2006 IPCC Guidelines.

31. Information on the sources of AD and EFs used was reported to a limited extent in the BUR, but the NIR presents this information transparently. The sources of AD include Costa Rica's energy balance, national statistics and plant-specific information. EFs from the 2006 IPCC Guidelines for the tier 1 approach were developed by the Party specifically for the purpose of GHG inventory reporting; for example, country-specific CO₂ EFs for diesel and

gasoline were developed on the basis of the average carbon contents measured for these fuels in Costa Rica.

32. For certain categories, the actual AD and some EFs were not reported, for example for diesel and gasoline consumption in road transportation. During the technical analysis, Costa Rica explained that some AD are publicly available and can be included in the next BUR, but that other AD (e.g. for mineral and metal production in the IPPU sector) cannot be reported for confidentiality reasons.

33. Information on the Party's total GHG emissions by gas for 2015 is outlined in table 1 in Gg CO₂ eq. It shows an increase in emissions of 34.1 per cent between 2005 and 2015.

Table 1
Greenhouse gas emissions by gas of Costa Rica for 2015

<i>Gas</i>	<i>GHG emissions (Gg CO₂ eq) including land and HWP^a</i>	<i>% change 2005–2015</i>	<i>GHG emissions (Gg CO₂ eq) excluding land and HWP^a</i>
CO ₂	5 083.24	NA	7 979.27
CH ₄	4 075.98	NA	4 029.90
N ₂ O	1 116.00	NA	1 116.00
HFCs	604.52	NA	604.20
PFCs	NO	NA	NO
SF ₆	1.94	NA	1.94
Total	10 881.68	34.1	13 731.30

^a 2006 IPCC Guidelines AFOLU categories 3.B (land) and 3.D (HWP (3.D.1) and other emissions (3.D.2)).

34. Information on indirect emissions was reported, including 62.50 Gg nitrogen oxides, 486.94 Gg carbon monoxide and 106.55 Gg non-methane volatile organic compounds. Costa Rica also reported black carbon emissions of 2,437.38 t in 2015 from the energy, AFOLU and waste sectors.

35. Information on AD and their sources, EFs and the methodologies used for estimating indirect emissions and black carbon was not reported in the BUR. During the technical analysis, the Party clarified that methodologies from the *EMEP/EEA air pollutant emission inventory guidebook 2019* had been used to estimate those emissions.

36. Costa Rica applied notation keys in tables where numerical data were not provided. The use of notation keys was mostly consistent with the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties.

37. Several of the cells in summary tables A–B of annex A to the BUR were left empty. During the technical analysis, the Party clarified that this was an error and the relevant information had been provided in the NIR.

38. Costa Rica reported comparable information addressing the sectoral reporting tables annexed to the Revised 1996 IPCC Guidelines.

39. The Party did not report comparable information addressing the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF. During the technical analysis, the Party clarified that this information is available and will be included in its next BUR.

40. The shares of emissions that different sectors contributed to the total GHG emissions excluding land, HWP and other emissions (categories 3.B, 3.D.1 and 3.D.2, respectively), as calculated by the TTE using information from the BUR, in 2015 are reflected in table 2.

Table 2
Shares of greenhouse gas emissions by sector of Costa Rica for 2015

<i>Sector</i>	<i>GHG emissions (Gg CO₂ eq)</i>	<i>% share^a</i>	<i>% change 2005–2015</i>
Energy	7 297.36	53.1	23.3
Industrial processes and product use	1 320.30	5.2	110.2

<i>Sector</i>	<i>GHG emissions (Gg CO₂ eq)</i>	<i>% share^a</i>	<i>% change 2005–2015</i>
AFOLU	179.41	NA	–27.6
Livestock (category 3.A)	1 876.27	13.7	NA
Land (category 3.B)	–2 427.58	NA	NA
Aggregate sources and non-CO ₂ emissions sources on land (category 3.C)	1 152.72	8.4	NA
HWP and other (category 3.D)	–422.39	NA	NA
Waste	2 084.61	15.2	57.8

^a Share of total without 2006 IPCC Guidelines AFOLU categories 3.B (land) and 3.D (HWP (3.D.1) and other emissions (3.D.2)).

41. Costa Rica 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 over a 100-year time-horizon of GHGs.

42. For the energy sector, information was clearly reported on AD sources, EFs and methodologies. Key categories include CO₂ emissions from road transportation (1.A.3.b), CO₂ emissions from electricity generation (1.A.1.a.i) and CO₂ emissions from residential (1.A.4.b). Costa Rica reported in its BUR that it used default EFs to estimate emissions for all categories in the energy sector, except for geothermal power generation (1.B.3 – other emissions from energy production), for which a country-specific EF was used, and international aviation, for which the tier 3 approach was used.

43. During the technical analysis, the Party clarified that for diesel, gasoline and liquefied petroleum gas used in Costa Rica, it used a country-specific EF calculated on the basis of the carbon content of the fuels. Net calorific values for the fuels were taken from the 2006 IPCC Guidelines. The TTE noted that clearly reporting in the BUR that a mix of country-specific and default EFs was used could enhance the transparency of the information reported. The actual AD for the energy sector were not presented in the BUR. During the technical analysis, Costa Rica clarified that AD for the energy sector are publicly available.

44. For the industrial processes and product use sector, information was reported on methodologies and AD sources. Tier 1 methods were used to estimate emissions for all categories except cement and lime production, for which the tier 2 approach was used. Plant-specific AD were used for all reported categories under mineral and chemical industry. Key categories were CO₂ emissions from cement production (2.A.1) and HFC emissions from product uses as substitutes for ozone-depleting substances (2.F).

45. Costa Rica reported estimates for lubricant use (2.D.1), paraffin wax use (2.D.2), sodium carbonate use (under 2.A.4 other process uses of carbonates) and acetylene use (under 2.B.5 carbide production) for the first time. The TTE commends Costa Rica for including estimates for these categories.

46. However, the AD for those categories were not presented in the BUR. During the technical analysis, the Party clarified that AD related to mineral and chemical industry could not be included in the NIR for confidentiality reasons. Aggregation of AD by category was not possible owing to the small number of sites in the country producing lubricant and paraffin wax, sodium carbonate and acetylene. However, Costa Rica indicated that the AD for other categories, including non-energy products from fuels and solvent use (2.D), product uses as substitutes for ozone-depleting substances (2.F) and electrical equipment (2.G.1), were not confidential.

47. For livestock (category 3.A) and aggregate sources and non-CO₂ emissions sources on land (category 3.C) under the AFOLU sector in the 2006 IPCC Guidelines, information was clearly reported on AD sources, EFs and methodologies. N₂O emissions from emissions sources on land (3.C) and CH₄ emissions from enteric fermentation (3.A.1) were identified as key categories. Tier 2 methods were used for estimating emissions for enteric fermentation and a number of other categories. Costa Rica included AD on livestock population in the BUR.

48. For land (category 3.B), Costa Rica estimated CO₂ emissions for forest land, cropland, grassland and wetlands using the tier 2 approach. As the Party reported information for 2005, 2010 and 2012 aggregated at the sectoral level, it was not possible to determine the fluctuation over time in emissions from land.

49. Costa Rica reported on HWP (category 3.D.1) for the first time in its second BUR. In 2015, this category represented a sink of 422.39 Gg CO₂. The TTE commends Costa Rica for including information on HWP. The Party did not report CO₂ emissions from settlements (category 3.B.5). During the technical analysis, the Party clarified that assessments were under way with a view to developing country-specific EFs to enable the inclusion of this category in the GHG inventory for future BURs.

50. For the waste sector, information was clearly reported on AD and their sources, EFs and methodologies. For solid waste disposal (category 4.A), Costa Rica reported AD (e.g. amount of solid waste landfilled) and landfilled waste composition (e.g. the shares of paper, textiles, wood, food waste, plastics and gardening waste).

51. For wastewater treatment and discharge (category 4.D), no AD were reported, which the Party clarified during the technical analysis was for confidentiality reasons, as wastewater treatment is carried out by private companies.

52. The second BUR provides an update to some of the GHG inventories reported in previous NCs and BURs. The information reported provides an update of the Party's NC2, NC3 and first BUR, which reported emissions and removals for 2005, 2010 and 2012. The update was carried out for 2005, 2010 and 2012 using methodologies contained in the 2006 IPCC Guidelines and including the new categories reported in the 2015 GHG inventory (see paras. 30 and 49 above). The previous national inventory was prepared using a combination of the 2006 IPCC Guidelines for estimating emissions of direct GHGs, and the Revised 1996 IPCC Guidelines for indirect GHGs. The information for 2005, 2010 and 2012 was reported in the Party's second BUR in summary tables at the sectoral level.

53. Updated GHG inventory information for 1990, 1996 and 2000 as included in Costa Rica's NC1 and NC2 was not reported in its BUR. During the technical analysis, the Party clarified that the complex recalculations required following the addition of new sources to the GHG inventory (see para. 49 above) had not yet been carried out for all previously reported GHG inventory years. The Party indicated that a complete time series starting from 1990 will be submitted as part of its NC4.

54. Costa Rica described in its BUR the institutional framework for the preparation of its 2015 GHG inventory. The Party reported that the Ministry of Environment and Energy is the governmental body responsible for the national climate change policy and GHG inventory. The GHG inventory is compiled by the National Meteorological Institute. The Party also transparently described the roles of stakeholders and the various steps involved in the compilation of the GHG inventory, including documentation and archiving methods.

55. Costa Rica clearly reported that a key category analysis was performed for the level of and trend in its emissions. The Party identified 18 categories as key, including CO₂ from road transportation, CO₂ from forest land converted to cropland and grassland, CO₂ from cropland remaining cropland, CO₂ from grassland remaining grassland, and CH₄ from enteric fermentation.

56. The BUR provides brief information on QA/QC measures, indicating that the QA/QC approaches suggested in the 2006 IPCC Guidelines were followed. In its NIR, Costa Rica provided additional information on QA/QC measures, such as the cross-checking of data between calculation sheets and report tables, as well as with alternative data sets, and the validation of data by sectoral experts. The NIR indicates that no QA was conducted by an independent entity.

57. Costa Rica reported information on CO₂ fuel combustion using both the sectoral and the reference approach. The information reported indicates that combustion emissions under the sectoral and reference approach were estimated at 6,993.88 and 6,864.40 Gg CO₂, respectively (see NIR table 2.6). The difference in estimates between the two approaches was reported as 1.8 per cent in both the BUR and the NIR.

58. Information was clearly reported on international aviation and marine bunker fuels, for which GHG emissions in 2015 amounted to 577.56 and 27.01 Gg CO₂ eq, respectively.

59. Costa Rica reported information on the uncertainty assessment of its national GHG inventory. The uncertainty analysis was based on the tier 1 approach and covers all source categories and all direct GHGs. The results obtained, as reported in the BUR, reveal that the level uncertainty for emissions is 27.4 per cent (6.4 per cent excluding land) and the trend uncertainty is 29.2 per cent (6.3 per cent excluding land).

60. Costa Rica did not report the assumptions used for the uncertainty assessment. During the technical analysis, the Party clarified that this information is available and will be reported in its next BUR.

61. The TTE noted that the transparency of the information reported on GHG inventories could be enhanced by addressing the areas noted in paragraphs 29, 32, 43, 45, 51 and 60 above, which could facilitate a better understanding of the information reported on GHG inventories.

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

62. As indicated in table I.2, Costa Rica reported in its BUR, mostly in accordance with paragraphs 11–13 of the UNFCCC reporting guidelines on BURs, information on mitigation actions and their effects, to the extent possible.

63. The information reported provides a clear and comprehensive overview of the Party's mitigation actions and their effects. In its BUR, the Party reported information on its national context and framed its national mitigation planning and actions in the context of the National Climate Change Strategy and its NDC. The National Climate Change Strategy is to be implemented through an action plan with six components, including mitigation. The mitigation objective is to contribute to GHG emission reduction in the prioritized sectors of energy, transport, agriculture and livestock. In its NDC, Costa Rica established a target of limiting net annual emissions to 9,374.00 Gg CO₂ eq by 2030, and proposed that net annual emissions should be limited to 1.73 t CO₂ eq per capita by 2030. The national commitment equates to a reduction in GHG emissions of 44 per cent compared with the 'business as usual' scenario and 25 per cent compared with the 2012 level (meaning that Costa Rica will need to reduce its emissions by 170.50 Gg CO₂ eq per year until 2030). Costa Rica reported that climate change actions, including mitigation actions, have been integrated into its development plans. Most of the mitigation actions are in the transport, energy generation and AFOLU sectors, but there are also cross-cutting initiatives, such as the Carbon Neutrality Country Programme for organizations and municipalities.

64. Costa Rica reported GHG emission projections: under the baseline scenario, emissions are projected to increase by 55.5 per cent between 2015 and 2050; while emissions are projected to decrease by 50.8 per cent between 2015 and 2050 under the 'with measures' scenario. The TTE commends the Party for reporting this information and providing detailed information on its national management of climate change.

65. The Party reported a summary of its mitigation actions in tabular format in accordance with decision 2/CP.17, annex III, paragraph 11.

66. Consistently with decision 2/CP.17, annex III, paragraph 12(a), Costa Rica clearly reported the names of mitigation actions and groups of actions, coverage (sector and gases) and progress indicators. A clear description of mitigation actions, as well as information on quantitative goals, was provided in the BUR. The BUR also indicated the status of most mitigation actions as under implementation, under development or under preparation.

67. The mitigation actions focused on the energy sector and include the ongoing implementation of the National Energy Plan 2015–2030 and the national plan for generation expansion. The Party clearly reported information on the objectives of the actions, progress of implementation and underlying steps taken or envisaged to achieve the objectives of actions. For some of the actions, such as the Carbon Neutrality Country Programme, the Party reported results achieved in terms of emission reductions, the sum of which was 244,402 t CO₂ eq between 2011 and 2018. The Party also reported its main planned

mitigation actions in the transport sector for promoting a modal shift to bus and train transportation and modernizing the country's vehicle fleet. Further, it reported that the estimated decrease in emissions from the transport sector due to the measures included in the National Climate Change Strategy Action Plan is 1,948.90 Gg CO₂ eq by 2021. During the technical analysis, the Party indicated that the actions for promoting the modal shift are under evaluation. For the AFOLU sector, Costa Rica provided information on its strategy for reducing emissions from deforestation and forest degradation and on its Fund for Sustainable Biodiversity.

68. In addition to national sectoral mitigation actions, Costa Rica included in its BUR information on NAMAs for the AFOLU sector. For example, the NAMA Café, established to encourage socially and environmentally friendly coffee production and processing, helped to reduce emissions from this activity by 38,624 t CO₂ eq in 2018; while a NAMA for livestock seeks to reduce emissions from the livestock sector through use of better practices and new technologies.

69. Costa Rica reported detailed information on each of its mitigation actions. For example, the Party reported detailed information on all steps taken to implement the Carbon Neutrality Country Programme. Nevertheless, information on methodologies and assumptions, as well as on steps taken or envisaged to achieve the objectives of actions, was not provided at the same level of detail for all mitigation actions reported. During the technical analysis, the Party clarified that it will try to report at the same level of detail for all mitigation actions in its next BUR.

70. Costa Rica provided information on its involvement in international market mechanisms as a Party to the Kyoto Protocol. The Party documented 14 clean development mechanism projects approved by its designated national authority, covering the number of projects, the sectors covered and the quantity of certified emission reductions issued so far. The Party reported that a project due to be implemented in the country under Japan's Joint Crediting Mechanism is in the process of being validated.

71. Costa Rica reported information on its domestic MRV arrangements in accordance with decision 2/CP.17, annex III, paragraph 13. The information reported indicates that the Party is in the process of developing and implementing a centralized domestic MRV system for mitigation actions. The system (SINAMECC) will consist of three modules, one each for monitoring mitigation, adaptation and support (see para. 26 above). Costa Rica will use the information gathered through SINAMECC for compiling its next BUR.

72. The TTE noted that the transparency of the information reported on mitigation actions could be enhanced by addressing the areas noted in paragraph 69 above, which could facilitate a better understanding of the information reported on mitigation actions.

73. In paragraphs 42 and 44 of the summary report on the technical analysis of the Party's first BUR, the previous TTE noted areas where the transparency of the reporting on mitigation actions could be enhanced. The current TTE noted the improvements referred to in paragraphs 67–69 above and commends the Party for enhancing the transparency of its reporting.

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

74. As indicated in table I.3, Costa Rica 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.

75. Costa Rica clearly reported information on constraints and gaps, and related financial, technical and capacity-building needs in accordance with decision 2/CP.17, annex III, paragraph 14. In its BUR, Costa Rica identified barriers to mitigation action, such as limited public financial resources for climate change projects, lack of knowledge of new technologies for infrastructure projects, weak coordination between the technical and political level, and lack of long-term planning. The main barriers reported in the area of adaptation are lack of political commitment to increasing the budget for adaptation measures prioritized in the

national adaptation policy for 2018–2030, limited national and municipal budgets for adaptation projects, and limited staff specialized in adaptation.

76. For national reporting, some of the reported barriers are the need for international cooperation, limited access to financial mechanisms for supporting research projects related to EFs, the reluctance of stakeholders to invest in research on EFs, limited access to training for government officials due to linguistic and financial constraints, the high number of tasks assigned to the team of experts in charge of preparing climate change reports, the considerable time taken to gather information for preparing reports and limited institutional coordination. Finally, reported barriers to participating in climate change negotiations include lack of financial resources for maintaining the team of negotiators, lack of resources for capacity-building in relation to climate change negotiations, and limited communication among the Party's various negotiators at the sessions of the UNFCCC, the Convention on Biological Diversity and the United Nations Convention to Combat Desertification.

77. Costa Rica reported comprehensive information in its BUR on needs related to mitigation, adaptation, national reporting and international negotiations. The Party reported that its financial, technical and capacity-building needs related to mitigation are primarily in the areas of preparing technical and pre-feasibility studies for technology, infrastructure and transport projects; establishing technology transfer processes; strengthening the technical capacity of staff in relation to technology, infrastructure and transport; developing regulations and inter-institutional coordination in the transport sector; strengthening technology transfer for integrated waste management; and overcoming financial barriers and strengthening inter-institutional cooperation and coordination to enable the comprehensive implementation of the national Law on Integrated Management of Solid Waste.

78. For adaptation, the financial, technical and capacity-building needs are in the areas of financing adaptation; strengthening implementation and assessment of adaptation measures in communities, urban areas and vulnerable ecosystems; strengthening technical capacity and maintaining the staff responsible for designing and implementing prioritized adaptation measures; supporting inter-institutional coordination and intergovernmental cooperation on adaptation; developing and strengthening results-based finance for conservation; sustainably managing and recovering natural resources; expanding the participation and co-responsibility of the private sector and society at large; and communicating climate risks and impacts.

79. In relation to national reporting, the needs identified are in the areas of strengthening national human capacity for preparing reports; improving review, consultation and assessment processes; improving communication channels and awareness among stakeholders; and acquiring technology for strengthening and consolidating SINAMECC. Finally, the needs related to international climate change negotiations include maintaining negotiators and strengthening their technical capacity to promote coordination between the Party's negotiation teams for the Convention on Biological Diversity and the United Nations Convention to Combat Desertification.

80. Costa Rica did not clearly report information on financial needs related to mitigation, adaptation, national reporting or international climate change negotiations in its BUR. During the technical analysis, the Party clarified that quantitative data on financial needs were insufficient at the time of compiling the second BUR but should be supplemented thanks to ongoing studies related to the NDC investment plan, the Green Climate Fund country programme for Costa Rica and a cost analysis for the Carbon Neutrality Country Programme.

81. Costa Rica reported information on financial resources and technical support received in accordance with decision 2/CP.17, annex III, paragraph 15. In its BUR, Costa Rica reported that it received USD 140,685,235 from international sources (56 per cent from multilateral funds, 39 per cent from bilateral support and 5 per cent from financial entities) for 123 actions in 2014–2018. The information reported indicates that the Party received support for mitigation (USD 53,442,974), adaptation (USD 45,375,392) and actions with mitigation and adaptation components (USD 41,866,868). The GEF provided USD 22,812,020 for mitigation, adaptation and actions that combine mitigation and adaptation, including USD 352,000 for preparing the second BUR.

82. Costa Rica did not report information on technology transfer or capacity-building support received in the BUR. During the technical analysis, the Party clarified that this

particular form of support was difficult to identify in the context of broader projects owing to lack of adequate markers and relevant registries.

83. Costa Rica reported information on nationally determined technology needs with regard to the development and transfer of technology in accordance with decision 2/CP.17, annex III, paragraph 16. In its BUR, Costa Rica reported that the technology needs assessment was conducted in 2011. The TTE noted that the assessment has not been updated since then. During the technical analysis, the Party clarified that it does not plan to update the technology needs assessment in the near future, although technology needs were reported for some mitigation actions, and explained that classifying and compiling such needs in the context of broader projects was challenging.

84. The TTE noted that the transparency of the information reported on needs and support received could be further enhanced by addressing the areas noted in paragraphs 78, 80 and 81 above, which could facilitate a better understanding of the information reported on needs and support received.

85. In paragraphs 46–48 of the summary report on the technical analysis of Costa Rica's first BUR, the previous TTE noted areas where the transparency of the reporting on needs and support received could be further enhanced, namely by identifying support needed to ensure the preparation of BURs on a continuous basis, and reporting on technology needs and technological support needed and received. The current TTE noted the improvements referred to in paragraphs 75, 76 and 79 above and commends the Party for enhancing the transparency of its reporting.

D. Identification of capacity-building needs

86. In consultation with Costa Rica, the TTE identified the following needs for capacity-building that could facilitate the preparation of subsequent BURs and participation in ICA:

- (a) In relation to national circumstances and institutional arrangements:
 - (i) Coordinating stakeholders at the national and local level;
 - (ii) Defining roles and responsibilities in preparing NCs and BURs;
 - (iii) Maintaining a continuous reporting cycle and improving data quality;
 - (iv) Enhancing technical knowledge in relation to preparing NCs and BURs;
- (b) In relation to mitigation action:
 - (i) Strengthening capacity and tools for estimating the emission reduction potential of mitigation actions at cantonal level;
 - (ii) Building capacity for using the SINAMECC platform as the national MRV system;
 - (iii) Collecting information on methodologies and assumptions in a consistent manner and reporting all actions in the BUR at a similar level of detail;
- (c) In relation to needs and support received:
 - (i) Developing registries for classifying and compiling technology needs for projects;
 - (ii) Establishing adequate markers and registries for identifying projects benefiting from technology transfer and capacity-building support;
 - (iii) Quantifying financial needs on the basis of national studies.

87. The TTE noted that, in addition to those identified during the technical analysis, Costa Rica reported several capacity-building needs in its BUR (in chap. 5.2.1 on needs classified by area of action, and chap. 5.2.2 on needs classified by type of resource needed), in the areas of mitigation, adaptation, reporting under the Convention and the Paris Agreement, and multilateral climate change negotiations.

88. In paragraph 50 of the summary report on the technical analysis of Costa Rica's first BUR, the previous TTE, in consultation with Costa Rica, identified capacity-building needs, some of which have since been addressed. The main improvements have been in more clearly differentiating the status of implementation of mitigation actions, providing additional information on the status and progress of implementation of each mitigation action, and reporting the support needed to ensure the preparation of BURs on a continuous basis (including financial, technical and capacity-building needs). The TTE commends Costa Rica for its efforts in addressing its capacity-building needs.

III. Conclusions

89. The TTE conducted a technical analysis of the information reported in the second BUR of Costa Rica in accordance with the UNFCCC reporting guidelines on BURs and concludes that the information reported is mostly consistent. It provides an overview of national circumstances and institutional arrangements relevant to the preparation of NCs and BURs 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, including associated methodologies and assumptions; 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 NCs; domestic MRV of mitigation, adaptation and support; and GHG emission projections, including a baseline scenario and a 'with measures' mitigation scenario. During the technical analysis, Costa Rica submitted its NIR as an additional document, which provided additional information on the national GHG inventory. The TTE concluded that the information analysed is mostly transparent.

90. Costa Rica reported an update on the institutional arrangements relevant to the preparation of its BURs, including on the legal status of the ratification of the Convention in 1992, the roll-out of the Carbon Neutrality Country Programme in 2007, the ratification of the Paris Agreement in 2016, its NDC and several national and sectoral policies, plans and strategies for climate action in the areas of mitigation and adaptation. The Ministry of Environment and Energy was identified as the governmental body responsible for approving the BURs, a role it has delegated to its Climate Change Directorate. Costa Rica has taken significant steps to establish institutional arrangements that allow for the sustainable preparation of its BURs, including procedures for information and data exchange, QA/QC, and public consultation and other forms of stakeholder engagement.

91. In its second BUR, submitted in 2019, Costa Rica reported information on its national GHG inventory for 2015. This included GHG emissions and removals of CO₂, CH₄, N₂O, HFCs and SF₆ (PFC emissions do not occur in the country) for all relevant sources and sinks as well as the precursor gases. The inventory was developed on the basis of the 2006 IPCC Guidelines. The total GHG emissions for 2015 were reported as 13,731.30 Gg CO₂ eq (excluding land and HWP) and 10,881.68 Gg CO₂ eq (including land and HWP). Among the 18 key categories identified were CO₂ emissions from road transportation, CO₂ emissions from forest land converted to cropland and to grassland, CO₂ emissions from cropland remaining cropland, CO₂ emissions from grassland remaining grassland, and CH₄ emissions from enteric fermentation.

92. Costa Rica reported information on mitigation actions and their effects in both tabular and narrative format, including the NDC target for net emissions for 2030 (9,374.00 Gg CO₂ eq), an ambitious reduction target compared with the total 10,881.68 Gg CO₂ eq net emissions in 2015; the National Climate Change Strategy Action Plan; and the Carbon Neutrality Country Programme. Costa Rica reported actions that are planned, implemented, ongoing or completed in the energy (including electricity generation and transport), AFOLU and waste sectors. The Party reported the progress of implementation of its mitigation actions and the results achieved. The highest estimated outcome was reported for actions in the transport sector (modal shift to trains and buses, and fleet modernization) of 1,948.90 Gg CO₂ eq by 2021. Costa Rica also reported information on international market mechanisms and MRV arrangements, including SINAMECC, which brings together mitigation, adaptation and support under a single national system for MRV and ensuring transparency

and which was built with open-source software with the goal of sharing it with other countries. For some mitigation actions, estimates of emission reductions and detailed information on methodologies and assumptions were not provided owing to difficulties in obtaining the necessary data, as clarified by the Party during the technical analysis.

93. Costa Rica reported information on key constraints, gaps and related needs in relation to mitigation, adaptation, national reporting and climate change negotiations. Information was reported on financial and technical support received, including USD 140,685,235 from international sources for 123 actions in 2014–2018. The Party also reported that it received USD 22,812,020 from the GEF for mitigation actions, adaptation actions and actions with both mitigation and adaptation components, including USD 352,000 for preparing its second BUR. The Party did not report information on technology transfer or capacity-building support received owing to lack of adequate markers and relevant registries. Up-to-date information on technology needs was not reported owing to difficulties in classifying and compiling these particular needs in the context of broader projects, as clarified by the Party during the technical analysis.

94. The TTE, in consultation with Costa Rica, identified the capacity-building needs listed in chapter II.D above that aim to facilitate reporting in accordance with the UNFCCC reporting guidelines on BURs and participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention. Costa Rica prioritized all the capacity-building needs.

Annex I

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

Table I.1

Identification of the extent to which the elements of information on greenhouse gases are included in the second biennial update report of Costa Rica

<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, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years.	Yes	Costa Rica submitted its second BUR in December 2019; the GHG inventory reported is for 2015.
Decision 2/CP.17, annex III, paragraph 4	Non-Annex I Parties should use the methodologies established in the latest UNFCCC guidelines for the preparation of NCs from non-Annex I Parties approved by the Conference of the Parties or those determined by any future decision of the Conference of the Parties on this matter.	Yes	Costa Rica used the 2006 IPCC Guidelines.
Decision 2/CP.17, annex III, paragraph 5	The updates of the section on 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 EF may be made in the subsequent full NC.	Partly	Costa Rica did not report AD for all categories, including for some key categories, despite some of this information being publicly available (e.g. for diesel and gasoline consumption in road transportation).
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) The tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF;	No	Comparable information was not reported.
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines.	Yes	Comparable information was reported.
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 its previous NCs.	Partly	GHG inventory estimates were reported for 2005, 2010, 2012 and 2015. The NC1 and NC2 also contained GHG inventory estimates for 1990, 1996 and 2000.
Decision 2/CP.17, annex III, paragraph 8	Non-Annex I Parties that have previously reported on their national GHG inventories contained in their NCs are encouraged to submit summary information tables of inventories for previous submission years (e.g. for 1994 and 2000).	Partly	Estimates in CO ₂ eq aggregated at the sectoral level were reported for 2005, 2010 and 2012, but not for 1990, 1996 or 2000.
	The inventory section of the BUR should consist of an NIR as a summary or as an update of the information contained in decision 17/CP.8,	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>
Decision 2/CP.17, annex III, paragraph 9	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);	Yes	Comparable information was reported in summary table A in annex A to the BUR.
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF ₆).	Yes	Comparable information was reported in summary table A in annex A to the 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	The Party submitted a technical annex to its BUR on the results of reducing emissions from deforestation and forest degradation for 2014–2015.
Decision 17/CP.8, annex, paragraph 12	Non-Annex I Parties are also encouraged, to the extent possible, to undertake any key source analysis as indicated in the IPCC good practice guidance to assist in developing inventories that better reflect their national circumstances.	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:		
	(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 information on anthropogenic emissions by sources of:	Yes	
	(a) HFCs;	Yes	
	(b) PFCs;	Yes	PFC emissions do not occur in Costa Rica.
	(c) SF ₆ .	Yes	
Decision 17/CP.8, annex, paragraph 16	Non-Annex I Parties are encouraged, as appropriate, to report on anthropogenic emissions by sources of other GHGs, such as:		
	(a) Carbon monoxide;	Yes	
	(b) Nitrogen oxides;	Yes	
	(c) Non-methane volatile organic compounds.	Yes	
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as sulfur oxides, and included in the Revised 1996 IPCC Guidelines may be included at the discretion of Parties.	Yes	The Party reported on other gases, such as sulfur dioxide.

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Comments on the extent of the information provided</i>	
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 global warming potential values 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 EFs and AD. 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, EFs and AD 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 and removals by sinks of GHGs not controlled by the Montreal Protocol;	Yes	Tier 2 methodology was used for specific categories in all sectors and tier 3 methodology for international aviation.
	(b) Explanation of the sources of EFs;	Yes	Costa Rica used a combination of default EFs from the 2006 IPCC Guidelines and country-specific EFs.
	(c) Explanation of the sources of AD;	Yes	Costa Rica used national and plant-specific AD.
	(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:	Partly	Costa Rica reported estimates for black carbon but did not provide information on methodologies, EFs or AD.
	(i) Source and/or sink categories;		
	(ii) Methodologies;		
	(iii) EFs;		
	(iv) AD;		

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Comments on the extent of the information provided</i>	
	(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 that is as complete as possible. Where numerical data are not provided, Parties should use the notation keys as indicated.	Yes	The Party used notation keys.
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;	No	Costa Rica did not report the assumptions used for the uncertainty assessment.
	(c) Methodologies used, if any, for estimating these uncertainties.	Yes	

Note: 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, paras. 3–10 and 41(g). Further, as per para. 3 of those guidelines, non-Annex I Parties are to submit updates of their national GHG inventories in accordance with paras. 8–24 of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties, 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.

Table I.2

Identification of the extent to which the elements of information on mitigation actions are included in the second biennial update report of Costa Rica

<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 11	Non-Annex I Parties should provide information, in tabular format, on actions to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all GHGs 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>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no</i>	<i>Comments on the extent of the information provided</i>
	(i) Methodologies;	Partly	Information was presented for most actions, but not for certain actions in the energy sector.
	(ii) Assumptions;	Partly	Information on assumptions was not reported for most of the mitigation actions.
	(c) Information on:		
	(i) Objectives of the action;	Yes	
	(ii) Steps taken or envisaged to achieve that action;	Yes	
	(d) Information on:		
	(i) Progress of implementation of the mitigation actions;	Partly	Costa Rica reported mitigation actions but for some of them it did not indicate their status of implementation.
	(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;	Partly	The Party did not report on emission reductions for some cross-cutting mitigation actions.
	(e) Information on international market mechanisms.	Yes	
Decision 2/CP.17, annex III, paragraph 13	Parties should provide information on domestic MRV arrangements.	Yes	

Note: The parts of the UNFCCC reporting guidelines on BURs on the reporting of information on mitigation actions in BURs are contained in decision 2/CP.17, annex III, paras. 11–13.

Table I.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 Costa Rica

<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:		
	(a) Constraints and gaps;	Yes	
	(b) Related financial, technical and capacity-building needs.	Partly	The Party indicated that it has financial needs but did not quantify them.
Decision 2/CP.17, annex III, paragraph 15	Non-Annex I Parties should provide:		
	(a) Information on financial resources received, technology transfer and capacity-building received;	Partly	Information on financial resources received was reported. Technology transfer and capacity-building support received were not reported.
	(b) Information on technical support received from the GEF, 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 BUR.	Yes	

<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 16	With regard to the development and transfer of technology, non-Annex I Parties should provide information on:		
	(a) Nationally determined technology needs;	Yes	
	(b) Technology support received.	Yes	

Note: 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 decision 2/CP.17, annex III, paras. 14–16.

Annex II

Reference documents

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