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Report on the technical expert review of the first biennial transparency report of Costa Rica*

Summary

This report presents the results of the technical expert review of the first biennial transparency report of Costa Rica, conducted by a technical expert review team in accordance with the modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement. The review took place from 20 to 24 October 2025 in San José.

* In the symbol for this document, 2024 refers to the year in which the biennial transparency report was submitted, not to the year of publication.

Abbreviations and acronyms

2006 IPCC Guidelines	*2006 IPCC Guidelines for National Greenhouse Gas Inventories*
2019 Refinement to the 2006 IPCC Guidelines	*2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*
A6.4ER	emission reduction under Article 6, paragraph 4, of the Paris Agreement
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BTR	biennial transparency report
CER	certified emission reduction
CH_4	methane
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CRT	common reporting table
CTF	common tabular format
ETF	enhanced transparency framework under the Paris Agreement
GDP	gross domestic product
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
ITMO	internationally transferred mitigation outcome
LULUCF	land use, land-use change and forestry
MPGs	modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement
MRV	measurement, reporting and verification
N_2O	nitrous oxide
NA	not applicable
NAP	national adaptation plan
NDC	nationally determined contribution
NE	not estimated
NID	national inventory document
NIR	national inventory report
PaMs	policies and measures
PNACC	National Policy for Adaptation to Climate Change of Costa Rica 2018–2030
PNGR	National Risk Management Policy of Costa Rica 2016–2030
QA/QC	quality assurance/quality control
REDD+	reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks (decision 1/CP.16, para. 70)
SF_6	sulfur hexafluoride
TERT	technical expert review team
UNDRR	United Nations Office for Disaster Risk Reduction
Wetlands Supplement	*2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*
WM	‘with measures’
WOM	‘without measures’

I. Introduction and summary

A. Introduction

1. This report covers the technical expert review of the BTR1 of Costa Rica. The review was organized by the secretariat and conducted by the TERT in accordance with the MPGs,[1] particularly chapter VII thereof. Costa Rica, on a voluntary basis, requested the secretariat to organize a review of the information reported pursuant to chapter IV of the MPGs as part of the technical expert review.[2] The outcome of the voluntary review is presented in annex I.

2. A draft version of this report was transmitted to the Government of Costa Rica, which provided comments that were taken into account, as appropriate, in this final version of the report.[3]

3. The review was conducted as an in-country review from 20 to 24 October 2025 in San José by the following team of nominated experts from the UNFCCC roster of experts: Menouer Boughedaoui (Algeria), Ekaterine Mikadze (Georgia), Macarena Moreira Muzio (Argentina), Aglaia (Glasha) Obrekht (Canada), Alexander Valencia (Colombia), Ricardo Vieira Araujo (Brazil) and Dan Zwartz (Australia). Menouer Boughedaoui and Aglaia (Glasha) Obrekht were the lead reviewers. The review was coordinated by Ruta Bubniene and Maria Paloma Noriega Jalil (secretariat).

4. Developing country Parties seeking to obtain and receive payments for results-based REDD+ actions can submit relevant information and data in a technical annex to the BTR.[4] The submission of the technical annex is voluntary and in the context of results-based payments.[5] The technical annex submitted by Costa Rica was subject to technical analysis by two LULUCF experts concurrently with the technical expert review.[6] The results of the technical analysis are captured in a separate technical report.[7]

B. Scope

5. The TERT conducted a technical expert review of the information reported in the BTR1 of Costa Rica as per the scope of the review defined in paragraph 146 of the MPGs and decision 9/CMA.4, consisting of:

(a) Review of the consistency of the information submitted by the Party under Article 13, paragraphs 7 and 9, of the Paris Agreement with the MPGs taking into account the flexibility accorded to the Party under Article 13, paragraph 2, of the Paris Agreement (see chap. II.A below);

(b) Consideration of the Party's implementation and achievement of its NDC under Article 4 of the Paris Agreement (see chap. II.B below);

(c) Identification of areas of improvement[8] for the Party related to implementation of Article 13 of the Paris Agreement (see chap. II.D below);

(d) Assistance in identifying capacity-building needs (see chap. II.E below);

(e) Voluntary review of the information reported by the Party pursuant to chapter IV of the MPGs (see annex I).

[1] Decision 18/CMA.1, annex.
[2] See decision 9/CMA.4, para. 1.
[3] As per para. 162(e) of the MPGs. The Party applied flexibility in the light of its capacities with respect to the time frame for providing comments on the draft report as per the provision in para. 162(f) of the MPGs.
[4] See decisions 14/CP.19, para. 7; 1/CP.24, para. 45; and 18/CMA.1, para. 14.
[5] Decision 14/CP.19, para. 8.
[6] See decisions 14/CP.19, paras. 10–14; 1/CP.24, para. 46; and 18/CMA.1, para. 14.
[7] See document FCCC/ETF/TATR.1/2025/CRI, to be made available upon publication at https://redd.unfccc.int/submissions.html?country=CRI.
[8] As referred to in paras. 7, 8, 146(d) and 162(d) of the MPGs.

C. Summary

6. Costa Rica submitted its BTR1 on 31 December 2024, before the deadline of 31 December 2024 mandated in decision 18/CMA.1. Costa Rica submitted its NID as a stand-alone document on 19 March 2025, after the deadline of 31 December 2024. Costa Rica submitted its CRTs on 29 September 2025, after the deadline of 31 December 2024, and during the review elaborated its related capacity-building needs. The TERT noted the delay in the submissions.

7. A list of the areas of improvement identified on the basis of the review of the consistency of the reported information with the MPGs can be found in the assessment tables.[9]

8. The Party applied flexibility as provided for those developing country Parties that need it in the light of their capacities pursuant to Article 13, paragraph 2, of the Paris Agreement in relation to the NIR of anthropogenic GHG emissions by sources and removals by sinks.[10] Information on where the flexibility was applied is included in chapter II.A.1 below.

D. Information provided by the Party pursuant to paragraphs 143–145 of the modalities, procedures and guidelines

9. The TERT noted that Costa Rica's BTR1 does not include a section on support needed or received for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building, and that the Party did not provide CTF tables III.12–III.13, which are used for reporting this information, with its submission. However, BTR sections 5.3 ("Support needed") and 5.4 ("Support received") categorize projects by capacity-building, technology development and transfer, and "MRV of the Climate Agenda".

10. During the review, the Party clarified that projects categorized as MRV of the Climate Agenda are intended to represent the support needed or received for implementing Article 13 of the Paris Agreement and transparency-related activities. In BTR table 5.8, Costa Rica reported the aggregate investment needed for MRV of the Climate Agenda (USD 804,332,126 for 2014–2024), and, in BTR table 5.19, it reported the aggregate investment received for MRV of the Climate Agenda (USD 201,546,295 for 2014–2023). Table 1 summarizes the information that Costa Rica reported on support needed and received. The TERT noted that the above-mentioned information reported by the Party is not subject to review as per the scope of the review defined in paragraph 146 of the MPGs.

Table 1
Summary of support needed and received by Costa Rica for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building
(USD million)

Status of support	*Amount*
Support needed from 2014 to 2024	804.3
Support received from 2014 to 2023	201.5

Sources: Costa Rica's BTR1 and information provided by the Party during the review.

[9] Contained in document FCCC/ETF/TERR.1/2024/CRI/Add.1, available at https://unfccc.int/first-biennial-transparency-reports.

[10] The developing country Party applied flexibility in the light of its capacities with respect to the provision in para. 58 of the MPGs.

II. Technical expert review[11]

A. Review of the consistency of the submitted information with the modalities, procedures and guidelines[12]

1. National inventory report[13]

11. The TERT assessed the information reported in the BTR1 of Costa Rica and identified areas of improvement relating to consistency with the MPGs, which are described in tables 2–7 of the assessment tables referred to in paragraph 7 above and summarized in table 2.

[11] As per para. 187 of the MPGs.
[12] As per para. 146(a) of the MPGs.
[13] As per para. 150(a) of the MPGs.

Table 2
Information reported in Costa Rica's national inventory report and review of consistency with the modalities, procedures and guidelines

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
Submission type (para. 12 of the MPGs)	Has the NIR been submitted as a stand-alone document?	Yes	No areas of improvement were identified
Time series (paras. 57–58 of the MPGs)	What years have been reported and is the time series in accordance with the MPGs?[b]	1990–2021, in accordance with the MPGs	2.G.9, 3.E.5, 3.E.7
Metrics (para. 37 of the MPGs)	Has the Party used the 100-year GWP values from the AR5?	Yes	No areas of improvement were identified
	Has the Party used other metrics?	No	No areas of improvement were identified
Gases (paras. 47–49 and 51 of the MPGs)	Which gases have been reported?	CO_2, CH_4, N_2O, HFCs, SF_6[c]	No areas of improvement were identified
Indirect emissions (para. 52 of the MPGs)	Has the Party reported indirect CO_2 emissions and national totals with and without indirect CO_2?	No	No areas of improvement were identified
	Has the Party reported indirect N_2O emissions from sources other than those in the agriculture and LULUCF sectors as a memo item?	No	No areas of improvement were identified
National circumstances and institutional arrangements (paras. 18–19 of the MPGs)	Has the Party reported information on the functions related to inventory planning, preparation and management?	Partly	2.G.1
Methodologies, parameters and data (paras. 20–24 of the MPGs)	Has the Party used the 2006 IPCC Guidelines?	Yes	4.I.2, 4.I.5, 6.L.6, 7.W.3, 7.W.4, 7.W.5, 7.W.8, 7.W.9, 7.W.10, 7.W.11
	Has the Party used other IPCC methodological guidance?	Yes, the Wetlands Supplement and the 2019 Refinement to the 2006 IPCC Guidelines	No areas of improvement were identified
Key category analysis (paras. 25 and 41–42 of the MPGs)	Has the Party reported a key category analysis?	Yes, a key category analysis was performed using approach 1 and a 95 per cent threshold for level and trend assessment for the starting year (1990) and the latest reporting year (2021) and with LULUCF	2.G.3
Time-series consistency and recalculations (paras. 26–28 and 43 of the MPGs)	Has the Party reported a consistent time series?	Partly	3.E.8, 7.W.6

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
	Has the Party provided justification and explanatory information for recalculations?	Partly	5.A.1
Uncertainty assessment (paras. 29 and 44 of the MPGs)	Has the Party reported the results of the uncertainty analysis and the methods used, underlying assumptions and trends?	Yes, including level and trend uncertainty, reported using approach 1 for the starting year (2017) and the latest reporting year (2021)	2.G.7
QA/QC plan and procedures (paras. 34–36 and 46 of the MPGs)	Has the Party elaborated information on an inventory QA/QC plan, including information on the inventory agency responsible for implementing QA/QC, and current and future QA/QC procedures?	Partly	2.G.2, 3.E.4, 4.I.4, 5.A.4
Assessment of completeness (paras. 30–33, 38, 45, 47 and 50 of the MPGs)	Have any areas of improvement for lack of completeness been identified for the following sectors?	Yes	2.G.5, 2.G.6, 2.G.8
	Energy	Yes	3.E.3, 3.E.10
	IPPU	No	NA
	Agriculture	Yes	5.A.6, 5.A.7, 5.A.9
	LULUCF	Yes	6.L.1, 6.L.4, 6.L.6
	Waste	Yes	7.W.7, 7.W.9
Threshold for reporting significant categories (para. 32 of the MPGs)	For categories reported as “NE” owing to insignificance, has information been reported showing that the likely level of emissions is below the threshold of significance?	No	6.L.4
Methodologies, emission factors, parameters and activity data (paras. 39–40 and 53–56 of the MPGs)	Has information been reported on categories, gases, methodologies (including the rationale for selecting them), emission factors and activity data at a disaggregated level for the following sectors?	Partly	
	Energy	Partly	3.E.2, 3.E.6
	Has information been reported on international aviation and marine bunker fuel emissions as two separate entries and such emissions distinctly reported from national totals?	Yes	NA

Element	*Information to be reported*	*Response and summary as relevant*	*ID#(s) for the area(s) of improvement identified*[a]
	Has information been reported indicating how feedstocks and non-energy use of fuels have been accounted for in the inventory, under the energy or IPPU sector?	Partly	NA
	IPPU	Partly	4.I.1, 4.I.3
	Agriculture	Partly	5.A.2, 5.A.3, 5.A.8
	LULUCF	Partly	6.L.2, 6.L.3, 6.L.5, 6.L.7, 6.L.8, 6.L.9
	Did the Party provide information on the approach taken to address emissions and subsequent removals from natural disturbances on managed land in a manner consistent with IPCC guidance, and indicate whether the estimates are included in national totals?	Yes	6.L.3
	Waste	Partly	7.W.1, 7.W.2

[a] See document FCCC/ETF/TERR.1/2024/CRI/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.
[b] The developing country Party applied flexibility in the light of its capacities with respect to this provision.
[c] Emissions of perfluorocarbons and nitrogen trifluoride do not occur in the country.

2. Information necessary to track progress in implementing and achieving the nationally determined contribution[14]

12. The TERT assessed the information reported in the BTR1 of Costa Rica and identified areas of improvement relating to consistency with the MPGs, which are described in tables 8–11 and 13 of the assessment tables referred to in paragraph 7 above and summarized in table 3.

Table 3
Information reported in Costa Rica's submission

Topic	*ID#(s) for the area(s) of improvement identified*[a]
National circumstances and institutional arrangements (paras. 59–63 of the MPGs)	8.1, 8.2, 8.3, 8.4
Description of the NDC under Article 4 of the Paris Agreement, including updates (para. 64 of the MPGs)	9.1
Information necessary to track progress in implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 65–79 of the MPGs)	10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7
Mitigation PaMs, actions and plans related to implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 80–90 of the MPGs)	11.1, 11.2, 11.4, 11.5
Summary of GHG emissions and removals (para. 91 of the MPGs)	No areas of improvement were identified
Projections of GHG emissions and removals (paras. 92–102 of the MPGs)	13.1, 13.3, 13.4, 13.5, 13.6

[a] See document FCCC/ETF/TERR.1/2024/CRI/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

3. Financial, technology development and transfer, and capacity-building support provided[15]

13. According to paragraph 118 of the MPGs, developed country Parties shall provide information pursuant to Article 13, paragraph 9, of the Paris Agreement in accordance with chapter V of the MPGs. Other Parties that provide support should also provide such information and, in doing so, are encouraged to use the same MPGs contained in that chapter.

14. Pursuant to Article 13, paragraph 9, of the Paris Agreement, developed country Parties shall and other Parties that provide support should provide information on financial, technology development and transfer, and capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement.

15. Costa Rica did not consider itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement. Accordingly, the Party did not provide information on financial, technology development and transfer, or capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement in its BTR1.

[14] As per para. 150(b) of the MPGs.
[15] As per para. 150(c) of the MPGs.

B. Consideration of the Party's implementation and achievement of its nationally determined contribution[16]

16. In considering Costa Rica's progress in implementing and achieving its NDC, the TERT noted that the NDC[17] comprises two unconditional mitigation targets. The first target sets absolute maximum net national emissions in 2030, and the second sets an absolute maximum net emission budget for 2021–2030, including all emissions under all sectors covered by the national GHG inventory.

17. The indicators that Costa Rica selected to track progress in implementing and achieving its NDC are described in table 4.

Table 4
Description of the indicator(s) selected by Costa Rica to track progress in implementing and achieving its nationally determined contribution

NDC target	*Indicator*	*Description*
Absolute maximum net national emissions of 9.11 Mt CO_2 eq in 2030	Total net national CO_2 eq emissions in 2030	Absolute economy-wide national emission cap in 2030, including all emissions under all sectors covered by the national GHG inventory
Absolute maximum net emission budget of 106.53 Mt CO_2 eq for 2021–2030	Total net national CO_2 eq emissions for 2021–2030	Absolute economy-wide national emission cap for 2021–2030, including all emissions under all sectors covered by the national GHG inventory

Source: Costa Rica's BTR1.

18. The TERT noted that the contribution of LULUCF to achieving the NDC is included in the Party's target-year level and that Costa Rica does not plan to use ITMOs, A6.4ERs or CERs from cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement or the mechanism established by Article 6, paragraph 4, of the Paris Agreement towards the achievement of its NDC.

19. Table 5 summarizes information on progress in implementing the NDC based on the indicator total net national CO_2 eq emissions in 2030 taking into account the type of Costa Rica's first NDC target, including quantitative values for the implementation period, including the most recent year available, and projected emissions for the target year, and information on the contribution of LULUCF towards the implementation and achievement of the NDC, as applicable.

Table 5
Summary of information on Costa Rica's progress in implementing and achieving its nationally determined contribution
(kt CO_2 eq)

	Total net GHG emissions excluding LULUCF	*Contribution of LULUCF, as applicable*	*ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable*	*Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable*
2021	16 155.40	3 523.17	NA	12 632.50
Fixed-level target	NA	NA	NA	9 110.00

Sources: Costa Rica's BTR1 and information provided by the Party during the review.

20. According to the most recent information on total net national CO_2 eq emissions excluding LULUCF provided in BTR section 2.6, in 2021 Costa Rica's total net national CO_2 eq emissions excluding LULUCF were 16,155.40 kt CO_2 eq. The TERT noted that, in 2021, the contribution of LULUCF was 3,523.17 kt CO_2 eq removals, resulting in the adjusted indicator being equal to 12,632.50 kt CO_2 eq. The adjusted indicator is 38.7 per cent above

[16] As per para. 146(b) of the MPGs.

[17] The consideration of the Party's implementation and achievement of its NDC is in the context of the NDC submitted by Costa Rica on 29 December 2020.

the emission level corresponding to the fixed target level in 2030. However, the TERT noted that the GHG emissions for the most recent year (2021) were calculated using GWP values from the AR5, whereas the target year (2030) emissions were projected using GWP values from the AR2, and, as such, a comparison between them may not be appropriate.

21. Table 6 summarizes information on progress in implementing the NDC based on the indicator total net national CO_2 eq emissions for 2021–2030 taking into account the type of Costa Rica's second NDC target, including quantitative values for the implementation period, including the most recent year available, and information on the contribution of LULUCF towards the implementation and achievement of the NDC, as applicable.

Table 6
Summary of information on Costa Rica's progress in implementing and achieving its nationally determined contribution

	Total net GHG emissions excluding LULUCF (kt CO_2 eq)	*Contribution of LULUCF, as applicable (kt CO_2 eq)*	*ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable (kt CO_2 eq)*	*Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable (kt CO_2 eq)*	*Share of the emission budget (%)*
2021	16 155.40	3 523.17	NA	12 632.50	11.9
Cumulative 2021–2030 emission budget				106 530.00	100

Source: Costa Rica's BTR1.

22. According to the most recent information on total net GHG emissions excluding LULUCF provided in BTR section 2.6, in 2021 Costa Rica's total emissions and removals were 16,155.40 kt CO_2 eq. The TERT noted that this is equivalent to 11.9 per cent of the emission budget of 106,530.00 kt CO_2 eq for the implementation period (2021–2030). The TERT also noted that a comparison of the target level emissions and net GHG emissions in 2021 may not be appropriate owing to a methodological inconsistency in their estimation.

23. Costa Rica reported information on the actions and PaMs that support the implementation and achievement of its NDC. However, the TERT noted that the BTR does not include information on the impact of those PaMs on the progress of NDC implementation and that the influence of the PaMs is unable to be determined in the trend of national GHG emissions, particularly as the Party did not provide data on the expected or achieved emission reductions for each reported policy or measure. Table 7 provides a summary of the reported information on the key PaMs of Costa Rica.

Table 7
Summary of information on key policies and measures reported by Costa Rica

Sector	*Key PaMs[a, b]*
Policy framework and cross-sectoral measures	Implementation of the Costa Rican Offset Mechanism (successor to the Domestic Carbon Market)
Energy	
Energy supply and renewables	Achievement of 100 per cent renewable electricity generation by 2030
	Strategy for the development and promotion of green hydrogen by 2022
Transport	Introduction of electric passenger trains in the San José Greater Metropolitan Area
	Renewal of public bus concessions with decarbonization criteria
	Introduction of electric freight trains for Limón Province
	Achievement of at least 8 per cent of the public transport fleet as zero emission by 2030
	Improvement of infrastructure to increase non-motorized trips by 5 per cent by 2030

Sector	*Key PaMs*[a, b]
	Introduction of standards to migrate towards a zero emission motorcycle fleet and the stabilization of motorcycle fleet growth
	Achievement of 8 per cent of the light vehicle fleet as electric by 2030
	Establishment of sustainable logistics models in the country's main ports, urban areas and logistical centres
	Reduction of 20 per cent in black carbon emissions by 2030 compared with the 2018 level
IPPU	Implementation of the Kigali Amendment to the Montreal Protocol to phase down the production and consumption of HFCs and promote low-GWP refrigerants
Agriculture	Application of low-GHG-emission production systems to coffee value chains by 2030
	Application of low-GHG-emission production systems to livestock value chains by 2030
	Implementation of low-emission production systems for 70 per cent of the livestock herd and 60 per cent of the area dedicated to livestock production by 2030
	Reduction in the total pasture area at an annual rate of 1 per cent and increase in the area of well-managed pasture at a rate of 1–2 per cent per year by 2030
LULUCF	Increase in national forest cover to 60 per cent by 2030 and maintenance thereafter
	Maintenance of a zero deforestation rate in mature forest by 2030
	Increase in silvopastoral and agroforestry systems of 69,500 ha by 2030
	Intervention in 1 million ha of areas with forest cover to avoid degradation by 2030
	Protection and conservation of 100 per cent of coastal wetlands by 2030 and increase in the area of registered wetlands and estuaries by at least 10 per cent by 2030
Waste	Treatment of at least 50 per cent of wastewater in areas of high population density by 2030

Source: Costa Rica's BTR1.

[a] Names of PaMs reproduced as reported in Costa Rica's BTR1.

[b] The total 23 PaMs listed in this table include 2 PaMs concerning low-GHG-emission production systems: a coffee-related policy and a livestock-related policy. Later in this report, these two policies are treated as a single measure, resulting in 22 instead of 23 PaMs.

24. The TERT noted that expected GHG emission reductions were specified for only two PaMs: the strategy for green hydrogen development and promotion (estimated expected annual reduction in emissions of up to 225,000 t CO_2 eq) and the introduction of electric passenger trains (estimated expected cumulative reduction in emissions of 7.6 Mt CO_2 over the useful life of the trains). However, for both PaMs, the underlying methodologies and assumptions used for estimating the emission reductions were not described.

25. The TERT also noted that owing to missing or unclear information regarding the status of implementation for each policy or measure, it was not possible to fully assess the impact of these actions on historical GHG emission trends. However, it can be assumed that strategic PaMs have started to contribute to GHG emission reductions.

26. During the review, the Party provided draft CTF tables containing projection data for the WM and WOM scenarios that allowed an estimation of the aggregated impacts of PaMs in 2030 under the WM scenario, which are a decrease in emissions of 5,130.62 kt CO_2 eq including LULUCF and an increase in emissions of 3,076.03 kt CO_2 eq excluding LULUCF. The mitigation measures included in the WM projections represent a reduction in emissions of 31 per cent including LULUCF and 16 per cent excluding LULUCF compared with projections under the WOM scenario. Further analysis of the projected emission reductions

(excluding LULUCF) shows that the sectoral contributions to the total emission reductions from all PaMs are as follows: energy, 40 per cent; IPPU, 36 per cent; waste, 15 per cent; and agriculture, 9 per cent.

27. Overall, for the time series 1990–2021, total national GHG emissions including LULUCF markedly decrease, primarily driven by a decline in emissions from the LULUCF sector. However, when analysing emissions excluding LULUCF, a significant increase in emissions of 78 per cent is seen for 1990–2021. This growth is predominantly attributed to the energy sector (177 per cent increase), followed by the IPPU sector (253 per cent increase) and the waste sector (107 per cent increase). The main drivers of this increase are GDP and population growth.

28. PaMs in the energy sector focus on increasing the share of electricity from renewable sources. Costa Rica reported strong progress in this regard, with more than 99 per cent of its electricity generated from a diverse mix of sources in 2021, including hydro, wind, geothermal, solar and biomass. This share increased by approximately 1 per cent in 2015–2021 (from 99.1 to 99.9 per cent), an effort supported by the national policy framework, specifically the VII National Energy Plan 2015–2030. According to the final mitigation scenario report by Sancho (2026) provided by the Party during the review week, electricity demand has shown a sustained increase, reaching 11,523 GWh in 2021. Analysis indicates this pattern of demand to be highly correlated with GDP growth. Conversely, emissions under category 1.A.1 energy industries show a marked decrease of 86.1 per cent for 1990–2021, which is primarily attributed to the increase in policies promoting the use of renewable energy sources within the country.

29. Emissions from transport increased significantly, by 247.0 per cent, over 1990–2021. By 2021, the emissions had reached a 75 per cent share of total emissions from the energy sector. Transport is the sector with the highest number of reported PaMs – 9 out of a total of 22. Based on the final mitigation scenario report by Sancho (2026), energy consumption in the transport sector is directly associated with the growth of the vehicular fleet (which includes private passenger, public and freight transport). Economic growth, as expressed by GDP, is identified as the primary driver of growth in transport emissions.

30. In the IPPU sector, a significant increase in emissions is observed from 2014 onward for category 2.F product uses as substitutes for ozone-depleting substances. Emissions for this category reached a 55 per cent share of total IPPU sector emissions in 2021. Costa Rica has implemented a mitigation measure addressing the Kigali Amendment to the Montreal Protocol with the aim of progressively reducing the use of HFCs and promoting the use of low-GWP refrigerants.

31. According to the final mitigation scenario report by Sancho (2026), a significant shift in waste generation occurred after 2010, when the Law on Integral Management of Waste (Law 8839) entered into force. The Law mandated municipalities to address waste management. As a result, along with increased private sector collection services, waste generation patterns have become more closely aligned with economic and demographic drivers (i.e. GDP and population growth).

32. Regarding the agriculture sector, enteric fermentation represents almost 70 per cent of the sector's total emissions. According to the final mitigation scenario report by Sancho (2026), emissions for this sector are closely correlated with GDP and population growth. Two mitigation measures focus on livestock value chains; they are designed to implement low GHG emission production systems while simultaneously incorporating adaptation and resilience measures at both the farm and the processing stage.

33. The LULUCF sector exhibits the greatest variability in the national inventory: emissions decreased over 1990–2021 by 889 per cent. In 2021, the sector's emissions and removals resulted in a net CO_2 sink, absorbing 3,523 Gg CO_2 eq, or approximately 21.8 per cent of the total national GHG emissions, in that year. This trend is primarily attributed to the national forestry policies implemented since the entry into force of the Forestry Law (Law 7575) in 1996. The Law prohibits the conversion of forest land to other land uses and established the Payment for Environmental Services Program as a mechanism for forest protection, regeneration and reforestation. LULUCF is the sector with the second highest number of reported PaMs – 5 out of a total of 22. Costa Rica's mitigation strategy for the

sector is focused on increasing and sustaining forest cover and strengthening related incentives, including transitioning from the Payment for Environmental Services Program to the more comprehensive Payment for Ecosystem Services Program, which recognizes the contribution of ecosystems and the beneficial impact of conservation efforts on biodiversity and climate change action.

34. The TERT notes that the Party might consider strengthening the implementation of existing mitigation actions and planning for additional mitigation actions to address these trends.

35. Costa Rica reported projections for 2025–2050 under the WM scenario.[18] The WM scenario reported by the Party includes PaMs implemented and adopted in 2024, but also PaMs being planned. In addition to the WM scenario, Costa Rica reported the WOM scenario. The projected emission levels are presented in table 8. The TERT noted that information on GHG emission projections was not used in considering Costa Rica's progress in implementing its NDC.

Table 8
Summary of greenhouse gas emission projections for Costa Rica

	GHG emissions (kt CO_2 eq/year)	*Change in relation to 2020 level (%)*	*Change in relation to 2021 level (%)*
Inventory data 2020	11 215.00		
Inventory data 2021	12 632.50	12.6	
WOM projections for 2030	16 603.94	48.1	31.4
WM projections for 2030	11 473.32	2.3	–9.2
WOM projections for 2050	26 081.63	132.6	106.5
WM projections for 2050	16 648.24	48.4	31.8

Sources: Costa Rica's BTR1 and draft CTF tables 6–9 provided by Costa Rica during the review.
Note: The projections are for GHG emissions with LULUCF and excluding indirect CO_2 emissions.

36. The TERT assessed Costa Rica's progress towards its target for 2030. The TERT considers that, on the basis of a comparison of information on total net national CO_2 eq emissions in the most recent reported year (i.e. 2021) with the emission level corresponding to the target in 2030, and taking into account information on mitigation actions and relevant national circumstances, Costa Rica is making progress towards achieving its NDC target by implementing mitigation actions but may face challenges keeping on track to achieving it.

37. The TERT notes that 3,522.50 kt CO_2 eq need to be reduced to reach the target level in 2030 compared with the level in the most recent reported year (2021). The TERT also notes that there are not yet enough data to sufficiently assess the Party's progress in implementing the emission budget target under the NDC, as it is early in the implementation period (2021–2030). The TERT further notes that regular monitoring of emissions and the results of mitigation actions allows adjustments to be made as needed towards achieving the reduction of 3,522.50 kt CO_2 eq.

C. Consideration of the Party's support provided[19]

38. Costa Rica did not consider itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and did not report information in its BTR1 on support provided (see para. 15 above).

[18] Note that, as per para. 93 of the MPGs, projections shall not be used to assess progress towards the implementation and achievement of an NDC under Article 4 of the Paris Agreement unless the Party has identified a reported projection as its baseline.

[19] As per para. 146(c) of the MPGs.

D. Identification of areas of improvement[20]

39. During the technical expert review, the TERT identified areas of improvement in relation to Costa Rica's implementation of Article 13 of the Paris Agreement, which are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 7 above.

E. Assistance in identifying capacity-building needs[21]

40. The TERT, in consultation with Costa Rica, identified the following prioritized need for capacity-building to facilitate the Party's reporting in its BTR relating to the flexibility applied by it as per the MPGs:[22] strengthening capacity for collecting national statistical data to enable sustainable reporting, with the latest reporting year being two years prior to the submission of the NIR rather than the three years set out in the flexibility provision in paragraph 58 of the MPGs.

41. Furthermore, in order to facilitate continuous improvement in reporting, the following additional capacity-building needs were identified during the review:

(a) Reinforcing the internal technical capacity of institutions to empower them to prepare the BTR or NID internally, in particular to develop emission projections, report adaptation information and prepare inventories for the LULUCF and waste sectors, as well as training national experts in the use of the ETF reporting tools to enable compilation of consistent GHG inventories and timely submission of NIRs and CTF tables;

(b) Strengthening communication strategies for raising awareness of the public about climate action and strengthening engagement strategies that support stakeholder engagement in implementing and achieving the NDC (relevant to para. 62 of the MPGs) and stakeholder involvement in tracking progress in implementing and achieving the NDC (relevant to para. 61 of the MPGs);

(c) Developing and implementing QA/QC and archiving systems that ensure the quality of data and information reported in BTRs and NIDs, as well as their retention and ability to be retrieved, and providing institutional staff with training on QA/QC and archiving;

(d) Strengthening the understanding of experts on the reporting requirements set out in the MPGs and training them in applying the methodologies prescribed in the 2006 IPCC Guidelines and the 2019 Refinement to the 2006 IPCC Guidelines;

(e) Strengthening the technical capacity of national institutions such that the sustainability of systems for the monitoring, reporting and archiving of data and information on climate change is ensured;

(f) Strengthening the implementation of the GHG inventory cycle (inventory planning, preparation and management), including QA/QC, to ensure timely and accurate GHG inventory compilation (including the NID and CRTs);

(g) Developing tools and models for assessing the expected and achieved emission reductions of mitigation actions, including training experts to apply these tools and models.

III. Conclusions and recommendations

42. The TERT conducted a technical expert review of the information reported in the BTR1, NID and CRTs of Costa Rica in accordance with the MPGs.

[20] As per para. 146(d) of the MPGs.

[21] As per para. 146(e) of the MPGs.

[22] For a complete list of the capacity-building needs identified by the TERT in consultation with the Party, see table 15 in document FCCC/ETF/TERR.1/2024/CRI/Add.1.

43. The areas of improvement identified by the TERT on the basis of the review of the consistency of the information reported by Costa Rica with the MPGs are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 7 above.

44. The TERT considers that, on the basis of a comparison of information on total net national GHG emissions including LULUCF for the most recent reported year (i.e. 2021) with the emission level corresponding to the target in 2030, and taking into account information on mitigation actions and national circumstances, Costa Rica is making progress towards its NDC targets by implementing mitigation actions but may face challenges keeping on track to achieving them. The TERT also notes that there are not yet enough data to sufficiently assess the Party's progress in implementing the emission budget target under the NDC, as it is still early in the implementation period (2021–2030).

45. The TERT notes that, although explicit quantitative information on the impact of individual PaMs on the implementation and achievement of the NDC was not provided, and the aggregate impact of PaMs is not yet clearly reflected in the overall national GHG emission trends, it can be assumed that strategic PaMs have started to contribute to GHG emission reductions. This preliminary impact is most evident in the LULUCF and energy sectors, particularly in the reduced level of deforestation and the increased level of renewable energy generation respectively. The TERT acknowledges the potential initial contributions to GHG emission reductions of actions in the transport sector, recognizing the sector's importance to Costa Rica's GHG profile.

46. Costa Rica did not consider itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and, in accordance with the MPGs, did not report information on financial, technology development and transfer, or capacity-building support provided under Articles 9–11 of the Paris Agreement in its BTR1.[23]

47. Regarding the implementation of Article 13 of the Paris Agreement and transparency-related activities, Costa Rica reported capacity-building projects tagged as MRV of the Climate Agenda that include the support needed or received for implementing Article 13 of the Paris Agreement and transparency-related activities. The amount of support needed in 2014–2024 totalled USD 804,332,126, whereas support received in 2014–2023 through various channels totalled USD 201,546,295.

48. In consultation with Costa Rica, the TERT identified reporting-related needs for capacity-building support relating to the flexibility applied by the Party as per the MPGs that could facilitate the Party's preparation of subsequent BTRs. For Costa Rica, the main reporting-related needs for capacity-building support are improving data collection and resolving data gaps to ensure the time-series consistency of the GHG inventory, particularly for the IPPU and waste sectors.

[23] As per para. 118 of the MPGs.

Annex I

Outcome of the review conducted on a voluntary basis of the information reported by the Party in its first biennial transparency report pursuant to chapter IV of the modalities, procedures and guidelines

I. Summary of reported information

1. In its BTR1 Costa Rica provided information related to climate change impacts and adaptation under Article 7 of the Paris Agreement pursuant to chapter IV of the MPGs and, as per paragraph 1 of decision 9/CMA.4, on a voluntary basis, requested the secretariat to organize a review of that information as part of the technical expert review pursuant to chapter VII of the MPGs.

2. In accordance with chapter IV of the MPGs, Costa Rica provided information on its climate change impacts; risks and vulnerabilities; adaptation priorities and barriers to implementing adaptation action; and cooperation, good practices, experience and lessons learned in relation to climate change impacts and adaptation, which is summarized in table I.1.

Table I.1
Summary of information on vulnerability and adaptation to climate change reported by the Party

Priority adaptation sector or area	*Vulnerability and adaptation measures reported*	*Challenges and constraints*	*Cooperation, good practices, experience and lessons learned*
Agriculture, livestock and fisheries	Vulnerability: severe impacts arise from climate variability, including droughts, excessive rainfall, floods, pests, diseases, soil degradation and crop stress, which reduce yields in coffee, rice, sugar cane, bananas and pineapples; and livestock farms and fisheries are highly exposed to heat stress, water scarcity, pasture loss, ocean acidification and species migration, threatening productivity and food security Adaptation measures: practices for sustainable, resilient and low-emission agriculture and livestock farming that strengthen the adaptive capacity of agricultural producers; a predictive system for monitoring agricultural pests and diseases attributable to the effects of climate change; and regional working groups established to build capacity of stakeholders in fishing and aquaculture activities	Outdated practices, limited technology, high production costs, unstable markets and dependence on monocultures and agrochemicals reduce the resilience and competitiveness of the agriculture sector; and social inequalities, such as limited access to land, finance and technical assistance, for women and ageing producers	The Marine and Coastal Biodiversity and Adaptation to Climate Change Programme of the German Agency for International Cooperation, which pioneered conducting climate change vulnerability analyses in marine coastal environments and the objective of which was to address the causes of marine and coastal biodiversity loss and deterioration; and the Adapta2+ programme, the aim of which is to validate good agricultural practices and nature-based solutions
Ecosystems and biodiversity[a]	Vulnerability: biodiversity is threatened by deforestation, agricultural and urban	Natural resource dependence, poverty, weak territorial planning and	Costa Rica has participated in South–South and triangular

Priority adaptation sector or area	*Vulnerability and adaptation measures reported*	*Challenges and constraints*	*Cooperation, good practices, experience and lessons learned*
	expansion, habitat fragmentation, pollution and unsustainable use of ecosystems; and climate change drives species displacement, ecosystem degradation, genetic loss and spread of invasive species, as well as leading to a higher risk of extinction for species Adaptation measures: nature-based solutions, ecosystem-based adaptation, community-based adaptation practices, creation of biological corridors, conservation and restoration (e.g. the Conserving Biodiversity through Sustainable Management in Production Landscapes in Costa Rica project of the United Nations Development Programme and Global Environment Facility)	persistent gender and social inequalities (especially for women and vulnerable communities) limit adaptation options and deepen exclusion	cooperation mechanisms for biodiversity and forest conservation projects related to climate change (e.g. for its Payment for Environmental Services Program)
Energy	Vulnerability: heavy reliance on hydroelectric power and deficient distribution systems, with reduced water availability and water supply needed for industry, commerce, services and tourism Adaptation measures: incorporation of solar energy into the electricity grid in the Chorotega Region to increase resilience by diversifying the energy mix	Rising energy demand, increasing energy production costs and weak territorial planning reduce the attractiveness of energy infrastructure projects for foreign investment; and gender inequalities, lack of inclusive policies and limited access to land, financing and technical support by women deepen social disparities	Costa Rica's NAP includes a commitment to develop integrated, intersectoral planning for the electrification of energy demand. Such planning considers the needs of various sectors and leverages the diversity of renewable energy sources available in different regions. The goal of the NAP is to ensure energy sustainability and resilience in the face of climate change impacts, such as droughts that could affect hydropower generation
Health[a]	Vulnerability: high exposure to climate variability, leading to rising cases of vector-borne respiratory, gastrointestinal and parasitic diseases, as well as skin cancer and heat stress; extreme weather events damage health infrastructure, disrupt vital services and reduce food security, and have caused a significant number of human deaths; and increased atmospheric pollutants and climate variability exacerbate	Deficient water, sanitation and waste management systems, poor urban planning, poverty (especially in rural and Indigenous communities), gender inequalities, lack of inclusive policies, limited early warning and surveillance systems, limited financing and limited technical assistance	Costa Rica's NAP (for 2022–2026) includes the development of early warning systems for droughts and floods, which are linked to outbreaks of diseases such as dengue, cases of diarrhoea and respiratory illnesses The health sector is encouraged to integrate climate information

Priority adaptation sector or area	*Vulnerability and adaptation measures reported*	*Challenges and constraints*	*Cooperation, good practices, experience and lessons learned*
	chronic respiratory diseases, especially in children and older adults Adaptation measure: analysis of risks associated with climate change incorporated into pre-investment studies for infrastructure projects of the Costa Rican Social Security Fund		into disease surveillance and response systems
Infrastructure and human settlements[a]	Vulnerability: high exposure to floods, landslides and extreme weather, while limited climate adaptation measures leave public infrastructure highly fragile Adaptation measures: creation of an agency to oversee the design and implementation of adaptation measures for the public works and transport sectors; implementation of assessments for flood management and control; use of budgets to ensure resilience to climate change; design and construction of community infrastructure projects and projects in Indigenous territories based on risk assessments, including of climate-related hazards; implementation of vulnerability and risk assessments related to climate-related hazards for critical public infrastructure (such as roads, airports, ports, railways and river works); and incorporation of climate change consideration into regulations and land-use planning instruments	Outdated design and poor construction and maintenance of infrastructure in risk-prone areas; deficient water, energy, transport and sanitation systems; weak territorial planning; lack of gender-inclusive policies; unequal access to housing, land and financing (particularly by women); large number of informal settlements; and repeated infrastructure damage raising production costs, disrupting the mobility of goods, people and tourists, and reducing the competitiveness of businesses	The methodology for climate risk assessment of Costa Rica's public infrastructure developed through joint work of the Directorate of Climate Change of the Ministry of Environment and Energy, the National Meteorological Institute, the Ministry of Public Works and Transportation, and the Federated College of Engineers and Architects of Costa Rica
Tourism	Vulnerability: high dependence on vulnerable natural and cultural attractions, with coastal destinations especially exposed to climate change impacts such as droughts, floods, landslides and sea level rise; and outdated infrastructure, weak water and sanitation systems, and lack of climate change adaptation strategies further heightening risks Adaptation measures: strengthening of standards and technical guidelines for building the resilience of productive sectors; integration of climate	Damaged infrastructure and increased costs for its repair, social inequalities (particularly affecting women, youth and Indigenous communities) and limited access to financing, training and opportunities	The Certification for Sustainable Tourism administered by the Costa Rican Tourism Institute, under which tourism companies are evaluated on their organizational management and on the social, economic, cultural and environmental impacts of their operations, with the evaluation including climate change adaptation criteria

Priority adaptation sector or area	*Vulnerability and adaptation measures reported*	*Challenges and constraints*	*Cooperation, good practices, experience and lessons learned*
	risk management into tourism planning and operations; and linkage of tourism adaptation to biodiversity and ecosystem management		
Water[a]	Vulnerability: water resources are under pressure from deforestation, agricultural expansion, overextraction and pollution, and extreme weather events such as droughts, floods and landslides reduce water availability and quality, damage infrastructure and degrade freshwater ecosystems Adaptation measures: watershed protection and restoration of degraded ecosystems to strengthen water collection and supply systems and thus increase water security; automated monitoring network to record variations in groundwater level; and instauration of officially designated aquifer recharge areas	Poverty, weak territorial planning, persistent gender and social inequalities (particularly affecting women, youth and Indigenous Peoples) and limited resilience-building	The Climate-Resilient Territories ('Plan-A') project supported by the Green Climate Fund. The aim of this project was to integrate adaptation into regional and municipal planning, with a strong focus on improving water management and reducing hydrological vulnerability

[a] Thematic target under the United Arab Emirates Framework for Global Climate Resilience.

3. Costa Rica provided a description of its adaptation strategies, policies, plans and goals; the actions it has taken to integrate adaptation into national policies and strategies; its progress in implementing adaptation action, and information on its monitoring and evaluation of adaptation actions and processes, which is summarized within the context of the iterative adaptation cycle in table I.2.

Table I.2
Summary of information on the iterative adaptation cycle

Dimensions	*Information on the progress reported*
Impact, vulnerability and risk assessment	Impact, vulnerability and risk assessment: Costa Rica has carried out sectoral-level vulnerability assessments for the past 15 years. In 2018, six priority sectors were established under PNACC: water resources, biodiversity, agriculture and fisheries, infrastructure, health and tourism. In 2022, Costa Rica submitted its first NAP (for 2022–2026), which provides details of vulnerabilities and observed impacts in those sectors. Multi-hazard early warning systems: Costa Rica has institutions capable of implementing coordinated early warning systems, and current efforts in implementing early warning systems are fragmented. Sector-specific early warning systems exist, namely, the BANACLIMA programme of the National Banana Corporation, a network of 10 automatic weather stations for banana producers; the Costa Rican Coffee Institute's berry disease and climate alerts for coffee producers; and a mobile application for fishers. Costa Rica is also developing early warning systems for droughts and for floods in river basins such as Sarapiquí and Frío.
Planning	Costa Rica has a number of national and subnational adaptation plans, strategies and policies, including its National Climate Change Strategy 2009, NDC (submitted in 2015 and updated in 2020), PNACC, NAP (for 2022–2026), PNGR, National Biodiversity Strategy and Action Plan 2016–2025, six regional climate change adaptation action plans (for Brunca, Central Valley, Central Pacific, Chorotega, North Huetar and Caribbean Huertar) (implemented in 2022–2026) and municipal and cantonal adaptation plans.

Dimensions	*Information on the progress reported*
	PNACC and the NAP are aligned with the National Strategic Plan 2050 and the National Development and Public Investment Plan (2023–2026) to ensure that adaptation is reflected in long-term and medium-term development priorities. Costa Rica reported information on the way in which these plans were designed in a participatory manner, including by conducting consultations with a broad range of stakeholders. Gender equality, local participation and transparency were integrated into the development of the National Action Plan on Gender Equality in Climate Action, which was developed through a participatory process involving stakeholders such as women's organizations and LGBTIQ+ groups, as well as Indigenous Peoples, and it identifies and addresses gender gaps in climate action, with a focus on six strategic sectors.
Implementation	Costa Rica reported on its progress in implementing adaptation actions. A national registry of adaptation actions carried out in 2015–2020 by the Directorate of Climate Change of the Ministry of Environment and Energy contains 184 actions, which have a strong emphasis on research, education, training on climate change impacts and adaptation, and planning and governance in the area of climate and development. The Party provided information on how some of these actions have decreased vulnerability to climate change, for example, by protecting ecosystems that act as buffers to extreme weather events.
Monitoring, evaluation and learning	Costa Rica has implemented a monitoring and reporting framework for its NAP (for 2022–2026), which includes collecting, reporting, storing, processing, visualizing and analysing information on the country's adaptation goals. The framework aligns with the six pillars of PNACC. Monitoring of the NAP focuses on output or activity indicators, which measure the amount of goods and services generated and the degree of progress at the level of inputs, activities and outputs. The Party will carry out an impact assessment of its NAP once the implementation period concludes in 2026. The National Climate Change Metrics System, established as the official platform for the collection and management of climate change data and information produced by public institutions, private sector entities, academic institutions and civil society organizations, forms part of the institutional arrangements for monitoring and evaluation. Costa Rica plans to implement a digital monitoring platform for climate action. Costa Rica reported that it needs to make further efforts to assess the long-term impacts of adaptation projects. Costa Rica reported that the sustainability of its monitoring and evaluation system is weakened by insufficient ownership of data by stakeholders and institutions, ineffective coordination and communication mechanisms, and the absence of investment in adaptation in institutional budgets.

4. Costa Rica provided information on averting, minimizing and addressing loss and damage related to climate change impacts, as summarized in table I.3.

Table I.3
Summary of information related to averting, minimizing and addressing loss and damage

Dimensions	*Information reported*
Observed and potential climate change impacts	Extreme events: Costa Rica's annual expected losses from multiple hazards (floods, cyclonic winds, storm surges, tsunamis, earthquakes) at USD 280 million per year. Using historical data compiled by the National Commission for Risk Prevention and Emergency Response and international assessments, Costa Rica reported that losses from extreme events have sharply increased (by 266 per cent), from USD 308 million in 2011–2015 to USD 820 million in 2016–2020, mainly due to Hurricane Otto (2016) and Tropical Hurricane Nate (2017). If risks continue accumulating, projected losses could reach USD 7 billion by 2030 and USD 30 billion by 2050. Observed impacts on people, infrastructure, agriculture and tourism have mainly resulted from extreme rain, tropical storms, hurricanes, floods and droughts. Costa Rica relies on international scientific assessments (UNDRR *Global Assessment Report on Disaster Risk Reduction*) and national monitoring data to observe historical losses, while probabilistic risk models and scenario-based projections underpin its estimates of future economic impacts. Slow onset events: Costa Rica has identified sea level rise, rising temperatures, droughts and water scarcity, ocean acidification, loss of biodiversity and rainfall variability as some of the observed slow onset events affecting the country in relation to climate change.

Dimensions	*Information reported*
	Climate models scaled down for Costa Rica project further temperature increases, continuing rising sea level, and more severe and prolonged droughts in some areas, while other areas could experience more irregular rainfall. This will result in increased risks of flooding and saltwater intrusion into aquifers and impacts on people, water security, crops and ecosystems. Costa Rica uses IPCC data for observing regional trends and information from its National Meteorological Institute and regional initiatives for risk analysis and climate projections.
Activities	Costa Rica addresses climate-related loss and damage through risk management policies and plans, namely PNGR and the National Risk Management Plan 2021–2025, with a focus on protecting vulnerable populations. Under PNGR, national institutions have the responsibility to allocate resources to risk management and climate change adaptation and should include risk management in national and subnational development plans and investment plans (such as for public infrastructure).
Institutional arrangements	Costa Rica's implementation of the PNGR is coordinated by the National Commission for Risk Prevention and Emergency Response. Costa Rica has a National Risk Management System, which has three subsystems: risk reduction, preparedness and response to disasters, and recovery. The system has various coordination bodies for monitoring the PNGR at the sectoral, institutional and territorial level, as well as advisory bodies and a thematic network, including sectoral risk management committees; institutional committees for risk management; regional, municipal and community emergency committees; technical advisory committees; and thematic territorial networks. The coordination bodies bring together the Central Administration, the decentralized public administration of the State, local governments, private sector entities and civil society organizations, among other actors, to ensure that disaster response and recovery measures are implemented at all levels.

II. Areas of improvement identified during the technical expert review of the reporting in the Party's first biennial transparency report on climate change impacts and adaptation under Article 7 of the Paris Agreement pursuant to chapter IV of the modalities, procedures and guidelines

5. The TERT assessed the information reported on climate change impacts and adaptation under Article 7 of the Paris Agreement pursuant to chapter IV of the MPGs in the BTR1 of Costa Rica and identified areas of improvement relating to consistency with the MPGs, which are described in table I.4. All recommendations and encouragements contained in the table are for the next BTR, unless otherwise specified.

Table I.4
Areas of improvement of the reporting on climate change impacts and adaptation under Article 7 of the Paris Agreement

ID#	*Reporting requirement*	*Description of area of improvement with recommendation or encouragement*
I.4.1	Specified in paragraph 107 of the MPGs	Costa Rica did not report in its BTR on projected climate trends and hazards, observed and potential impacts of climate change, or the approaches, methodologies and tools, and associated uncertainties and challenges, related to reporting on the projected climate trends and hazards. During the review, Costa Rica explained that it does have capacity to report on the projected trends and hazards. The TERT encourages Costa Rica to provide information on (1) projected climate trends and hazards; (2) potential impacts of climate change, including sectoral, economic, social and/or environmental vulnerabilities; and (3) approaches, methodologies and tools, and associated uncertainties and challenges, in relation to (1) and (2).
I.4.2	Specified in paragraph 108(a) of the MPGs	Costa Rica did not report transparently in its BTR on domestic adaptation priorities and progress towards those priorities. The information was included in the chapter on tracking progress in implementing and achieving the NDC,

ID#	*Reporting requirement*	*Description of area of improvement with recommendation or encouragement*
		whereas it should be included in the chapter on information related to climate change impacts and adaptation under Article 7 of the Paris Agreement. During the review, Costa Rica explained that its approach was to report on progress regarding adaptation priorities and actions in a similar way as for reporting on progress of mitigation actions, as the NDC includes both mitigation and adaptation components. The TERT encourages Costa Rica to report on domestic adaptation priorities and progress towards those priorities under the relevant chapter of the BTR, in line with the reporting requirements under the MPGs.

III. Assistance in identifying capacity-building needs[1]

6. In order to facilitate continuous improvement of the reporting in the BTR on climate change impacts and adaptation under Article 7 of the Paris Agreement pursuant to chapter IV of the MPGs, the following capacity-building needs were identified during the review:

(a) Training for public institutions in applying new digital tools that will improve the monitoring and evaluation of adaptation actions;

(b) Support for establishing improved procedures for climate budget tagging by public institutions in order to track public expenditure on climate adaptation actions;

(c) Support for mainstreaming the consideration of gender and social inclusion in adaptation and other development policies to improve reporting on indicators for measuring the impact of adaptation actions;

(d) Ongoing training for public institutions and key stakeholders on the risks associated with climate change to ensure the sustainability of adaptation actions implemented.

[1] As per para. 146(e) of the MPGs.

Annex II

Documents and information used during the review

A. Reference documents

BTR1 of Costa Rica. Available at https://unfccc.int/first-biennial-transparency-reports.

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"Reviews on a voluntary basis of the information reported pursuant to decision 18/CMA.1, annex, chapter IV, and respective training courses needed". Decision 9/CMA.4. FCCC/PA/CMA/2022/10/Add.2. Available at https://unfccc.int/documents/626570.

B. Additional information provided by the Party

Responses to questions during the review were received from Nazareth Rojas Morales and Adriana Bonilla Vargas (Directorate of Climate Change, Ministry of Environment and Energy of Costa Rica) and Ana Rita Chacon Araya, Johnny Montenegro Ballestero, Kathia Larissa Aguilar Martín, Roberto Rodríguez Sánchez and Rolando Fernández Zamor (National Meteorological Institute), including additional material. The following references were provided by Costa Rica and may not conform to UNFCCC editorial style as some have been reproduced as received:

GIZ Proklima, April 2019, *Inventory of GHG from refrigeration and conditioning in Costa Rica (2012-2016) C4 project report* (Inventario de Gases de Efecto Invernadero de Refrigeración y Aire Acondicionado para Costa Rica (2012-2016).

Government of Costa Rica, *Law 8839 (Waste Management):* https://pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=68300&nValor3=83024&strTipM=TC.

Government of Costa Rica, *Law 7152 (National Meteorological Institute):* https://pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=68300&nValor3=83024&strTipM=TC.

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