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Technical analysis of the first biennial update report of Saint Lucia submitted on 30 December 2021

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. 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 first biennial update report of Saint Lucia, conducted by a team of technical experts in accordance with the modalities and procedures contained in the annex to decision 20/CP.19.

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*
AD	activity data
AFOLU	agriculture, forestry and other land use
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BUR	biennial update report
CH_4	methane
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CORINAIR	Core Inventory of Air emissions (project)
EEA	European Environment Agency
EF	emission factor
EMEP	Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe
ETF	enhanced transparency framework (under the Paris Agreement)
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
HWP	harvested wood products
ICA	international consultation and analysis
IE	included elsewhere
IPCC	Intergovernmental Panel on Climate Change
IPCC good practice guidance	*Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*
IPCC good practice guidance for LULUCF	*Good Practice Guidance for Land Use, Land-Use Change and Forestry*
IPPU	industrial processes and product use
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
N_2O	nitrous oxide
NA	not applicable
NAP	national adaptation plan
NC	national communication
NDC	nationally determined contribution
NE	not estimated
NIR	national inventory report
NMVOC	non-methane volatile organic compound
NO	not occurring
non-Annex I Party	Party not included in Annex I to the Convention
PFC	perfluorocarbon
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)

Revised 1996 IPCC Guidelines	*Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*
SF_6	sulfur hexafluoride
SIDS	small island developing State(s)
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"

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. The least developed countries and SIDS may submit 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 SIDS and the least developed country Parties, will be determined by the frequency of the submission of BURs.

4. This summary report presents the results of the technical analysis of the first BUR of Saint Lucia, 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.

B. Process overview

5. In accordance with the mandate referred to in paragraph 2 above, Saint Lucia submitted its first BUR on 30 December 2021 as a stand-alone update report.

6. Saint Lucia, being a SIDS, was permitted to submit its first BUR at its discretion. However, during the technical analysis, the Party provided the reason for submitting its first BUR after December 2014. In 2014, Saint Lucia had just commenced preparation of its NC3, and would have found it difficult to prepare the two reports in parallel considering the limited human resources of the Department of Sustainable Development. The Climate Change Unit under this Department is very small, with only one officer responsible for reporting while also fulfilling other duties.

7. A desk analysis of Saint Lucia's BUR was conducted remotely from 4 to 8 April 2022 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: Zuelclady Maria Fernanda Araujo Gutiérrez (Mexico), Juliana Bempah Boateng (Ghana), Luis Caceres Silva (former member of the Consultative Group of Experts from Ecuador), Ngozi Eze (Nigeria), Nicolo Macaluso (Canada), Marcela Itzel Olguin-Alvarez (Mexico), Kimberly Todd (United States of America) and Alexander Valencia (Colombia). Nicolo Macaluso and Marcela Itzel Olguin-Alvarez were the co-leads. The technical analysis was coordinated by Gopal Joshi and Javier Hanna (secretariat).

8. During the technical analysis, in addition to the written exchange, in the virtual team room, to provide technical clarifications on the information reported in the BUR, the TTE and Saint Lucia engaged in consultation[1] on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of Saint Lucia's first BUR, the TTE prepared and shared a draft summary report with Saint Lucia on 14 July 2022 for its review and comment. Saint Lucia, in turn, provided its feedback on the draft summary report on 7 September 2022.

9. The TTE responded to and incorporated Saint Lucia's comments referred to in paragraph 8 above and finalized the summary report in consultation with the Party on 18 October 2022.

[1] The consultation was conducted via videoconferencing.

II. Technical analysis of the biennial update report

A. Scope of the technical analysis

10. 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).

11. The remainder of this chapter presents the results of each of the three parts of the technical analysis of Saint Lucia's BUR outlined in paragraph 10 above.

B. Extent of the information reported

12. The elements of information referred to in paragraph 10(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.

13. 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 12 above have been included in the BUR of the Party concerned. The TTE considers that the reported information is mostly consistent with the UNFCCC reporting guidelines on BURs. Specific details on the extent of the information reported for each of the required elements are provided in the tables included in annex I.

C. Technical analysis of the information reported

14. The technical analysis referred to in paragraph 10(b) above aims to increase the transparency of information reported by the Parties on 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.

15. 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. Saint Lucia submitted an NIR as a stand-alone document and, further to consultations with the TTE, requested a more detailed analysis and documentation of the findings contained in the NIR to be undertaken using the agreed GHG inventory tool.

16. 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

17. 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.

18. Saint Lucia reported in its first BUR information on its national circumstances, including a description of national and regional development priorities, objectives and circumstances, including features of geography, climate, demography, economy and the environment and natural resources that might affect the Party's ability to deal with mitigating and adapting to climate change, as well as information regarding national circumstances and constraints on the specific needs and concerns arising from the adverse effects of climate change and/or the impact of the implementation of response measures, as referred to in Article 4, paragraph 8, and, as appropriate, Article 4, paragraphs 9–10, of the Convention.

19. In addition, Saint Lucia provided a summary of relevant information regarding its national circumstances in tabular and graphical format.

20. Saint Lucia reported in its first BUR information on both its existing and its planned institutional arrangements relevant to the preparation of its NCs and BURs on a continuous basis. The description covers key aspects of the institutional arrangements, including the legal status and roles and responsibilities of the overall coordinating entity, the involvement and roles of other institutions and experts, mechanisms for information and data exchange, QA/QC procedures, and provisions for public consultation and other forms of stakeholder engagement. The TTE noted planned improvements to the information reported in the BUR, including improvements to data collection and private and public sector engagement in data collection.

21. Saint Lucia reported in its first BUR information on its domestic MRV arrangements. The description covers key aspects of the institutional arrangements, including the policies and legislation that provide the basis for and strengthen the MRV system. The roles and responsibilities of the Department of Sustainable Development and other institutions involved in Saint Lucia's current MRV system are outlined in the draft climate change bill, which, when passed into law, will provide the legal mandate for operation of the MRV system and for the Department of Sustainable Development to function as the national focal point and continue to coordinate the preparation of BURs and NCs. Furthermore, under this legal framework, agreements with data-providing institutions on data flows will be enabled. The MRV arrangements are designed at the national level and cover three main areas: mitigation (trends and projections, and NDC tracking); adaptation and loss and damage (trends and scenarios, and adaptation tracking) and support (i.e. finance, capacity-building and technology) needed and received.

22. Saint Lucia reported in its first BUR and during the technical analysis that the MRV system is subject to continuous improvement and that the Department of Sustainable Development will create the necessary institutional arrangements under the current MRV system for Saint Lucia to facilitate continuous preparation of NCs, BURs and biennial transparency reports for compliance with requirements under the ETF.

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

23. As indicated in table I.1, Saint Lucia 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.

24. Saint Lucia submitted its first BUR in 2021 and the GHG inventory reported is for 2018. The GHG inventory is consistent with the requirements for the reporting time frame.

25. Saint Lucia submitted an NIR in conjunction with its first BUR. The relevant sections of the NIR were referenced in the BUR and the document was made publicly available on the UNFCCC website.[2]

26. GHG emissions and removals for the BUR covering the 2018 inventory were estimated using the tier 1 methodology from the 2006 IPCC Guidelines (for most categories) and the 2019 Refinement to the 2006 IPCC Guidelines (for some categories), while in some cases the tier 2 methodology from the 2006 IPCC Guidelines and methodologies from the IPCC good practice guidance, the IPCC good practice guidance for LULUCF and other guidebooks were applied, as appropriate. The tier 2 methodology was used for IPPU categories coating applications (2.D.3.d), refrigeration and air conditioning (2.F.1) and food and beverages industry (2.H.2), and for the land category forest land remaining forest land (3.B.1.b). The *Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook*, 3rd edition (2005) was used for estimating NMVOC emissions for the IPPU sector. The TTE commends Saint Lucia for using the more recent 2006 IPCC Guidelines and the 2019 Refinement to the 2006 IPCC Guidelines for the GHG inventory reported in its BUR.

27. Information on sources of AD and EFs used for categories for which emissions and removals were estimated using the tier 1 methodology was clearly reported in the BUR, including information on data collection and archiving. Improvement plans for AD and EFs were also reported. The 2006 IPCC Guidelines and different national and regional databases were the main sources of AD and EFs used.

28. Information on updated AD for all sectors over the entire time series was not reported in Saint Lucia's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that it did not include the AD used for the inventory in the BUR and the NIR as it lacks the technical capacity to collect, compile and present large amounts of AD and associated information in those reports.

29. Information on country-specific EFs used for IPPU sector categories 2.D.3.d, 2.F.1 and 2.H.2 and for the land category 3.B.1.b was not clearly reported in Saint Lucia's BUR, and therefore it was challenging for the TTE to further analyse the reported emissions for these sectors. During the technical analysis, the Party clarified that the missing details can be found in the Greenhouse Gas Inventory Report for the Forest and Land Use Sector (FOLU) of Saint Lucia 2000–2018 and in the GHG inventory estimation spreadsheets. This additional information was made available to the TTE during the technical analysis.

30. Information on the Party's total GHG emissions by gas for 2018 is outlined in table 1 in Gg CO_2 eq.

Table 1
Greenhouse gas emissions by gas of Saint Lucia for 2018

Gas	*GHG emissions (Gg CO_2) including land and HWP*[a]	*GHG emissions (Gg CO_2) excluding land and HWP*[a]
CO_2	321.21	547.84
CH_4	86.38	86.38
N_2O	29.42	29.42
HFCs	72.43	72.43
PFCs	NE	NE
SF_6	NE	NE
Other	NA	NA
Total (Gg CO_2 eq)	**509.44**	**736.07**

[a] 2006 IPCC Guidelines AFOLU category 3.B (land) and, if reported, 3.D (HWP (3.D.1) and other emissions (3.D.2)).

31. Information on some other emissions was clearly reported, namely 0.818 Gg NMVOCs.

[2] https://unfccc.int/BURs.

32. Information on other emissions, including nitrogen oxides, carbon monoxide and sulfur oxides, was reported as "0" in Saint Lucia's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party indicated its need for capacity-building in estimating and reporting on other emissions in a complete and transparent manner.

33. Saint Lucia 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. In the method summary tables of the NIR (tables 10 and 12–15), Saint Lucia used "NO", "NE" and "IE" to provide an overview of categories to which these notation keys apply. Where "IE" was used, information on where the emissions were included was provided.

34. Information on the use of "0" instead of notation keys for a number of categories and gases that either were not estimated or do not occur in the country was not reported in Saint Lucia's BUR and the reason for this was not clear to the TTE. Furthermore, some incorrect notation keys were used, as in the case of biomass burning on forest land (3.C.1), for which "NO" was reported rather than "NE". During the technical analysis, the Party indicated its need for capacity-building in using notation keys in accordance with the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties.

35. Saint Lucia did not report comparable information addressing the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF and the sectoral reporting tables annexed to the Revised 1996 IPCC Guidelines. Saint Lucia only provided information comparable to summary table 7A annexed to the Revised 1996 IPCC Guidelines. During the technical analysis, the Party provided the GHG inventory estimation spreadsheets, which contain some comparable information addressing the tables included in annex 3A.2 to the IPCC good practice guidance for LULUCF.

36. The shares of emissions that different sectors contributed to the Party's total GHG emissions excluding land and HWP (category 3.B and, if reported, 3.D), as calculated by the TTE using information from the BUR, in 2018 are reflected in table 2.

Table 2
Shares of greenhouse gas emissions by sector of Saint Lucia for 2018

Sector	*GHG emissions (Gg CO_2 eq)*	*% share*[a]	*% change 2000–2018*
Energy	563.78	76.6	54.0
IPPU	76.54	10.4	750.4
AFOLU	–199.79	NA	
Livestock (category 3.A)	18.65	2.5	9.4
Land (category 3.B)	–226.63	NA	82.5
Aggregate sources and non-CO_2 emissions sources on land (category 3.C)	8.19	1.1	–9.6
HWP and other emissions (category 3.D)	NE	NA	NA
Waste	68.91	9.4	102.7

[a] Share of total without 2006 IPCC Guidelines AFOLU category 3.B (land) and, if reported, 3.D (HWP (3.D.1) and other emissions (3.D.2)).

37. Saint Lucia reported information on its use of GWP values consistent with those provided by the IPCC in its AR2 based on the effects over a 100-year time-horizon of GHGs. The Party consistently applied AR2 GWP values for emissions of CO_2, CH_4, N_2O and HFC-134a (used in mobile air conditioning).

38. However, information on national annual GWP values used for HFC emissions from refrigeration and stationary air conditioning (2.F.1.a) was not clearly reported in the BUR. During the technical analysis, the Party clarified that these values were adapted from the AR2 GWP values and provided them to the TTE.

39. For the energy sector, information was clearly reported on GHG emissions, methodological tier levels, sources of AD, data gaps and reasons for the gaps, QA/QC measures for AD, EFs and key categories. CO_2 emissions from fossil fuel combustion under

electricity generation and road transportation were the main sources of GHG emissions for the sector. The Party reported that emissions from these categories have been increasing since 2010 owing to a rising population with an increasing demand for electricity and road vehicles. Tier 1 methods were used for all source categories, including the key categories. Key categories for the sector, by level and trend, with and without land, are energy industries (1.A.1) (CO_2), road transportation (1.A.3.b) (CO_2) and fugitive emissions from solid fuels (1.B.1).

40. For the IPPU sector, information was clearly reported on GHG emissions, methodological tier levels, sources of AD, EFs and key categories. The main GHG emissions sources were stationary and mobile air conditioning and refrigeration (2.F1 and 2.F.2). The Party reported that emissions from this sector have been increasing over the time series owing to a sharp increase in fluorinated gas consumption, as substitutes for ozone-depleting substances in refrigeration and air-conditioning equipment. The Party reported that AD are sourced predominantly from import and customs data on mass of industrial products entering the country and national production data collected from local manufacturers within the country.

41. Information on emissions of PFCs and SF_6 was reported as "0" in Saint Lucia's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that the use of "0" was incorrect; these emissions were not estimated owing to complex challenges in collecting and compiling data and should have been reported as "NE". The Party also clarified that emissions from other process uses of carbonates (2.A.4), paraffin wax use (2.D.2), non-energy products from fuels and solvent use – dry cleaning (2.D.3.f), non-energy products from fuels and solvent use – chemical products (2.D.3.g) and use of electrical equipment (2.G.1.b) were not estimated owing to lack of data, hence "NE" was used.

42. Information on CO_2 emissions from the mineral industry (2.A), chemical industry (2.B), metal industry (2.C) and electronics industry (2.E) was not reported. However, the Party provided relevant clarification in its BUR, stating that the emissions under these categories either do not occur in Saint Lucia or were not estimated.

43. For the 2006 IPCC Guidelines AFOLU categories 3.A and 3.C, enteric fermentation (CH_4) and manure management (CH_4 and N_2O) were identified as key categories and the most relevant emissions sources in the sector. The next largest contributor was direct N_2O emissions from managed soils. Saint Lucia applied the tier 1 methodology for all categories in the agriculture sector. AD were largely country-specific and taken from the previous inventory for 2000–2010. The Ministry of Agriculture compiled the majority of these data; in order to fill data gaps, the time series was extrapolated by using statistics from the Food and Agriculture Organization of the United Nations.

44. For land (category 3.B), Saint Lucia reported annual GHG emissions and removals for 2000–2018. Overall, the net removals from land fluctuated between a minimum of 72 Gg CO_2 eq in 2010 and a maximum of 487 Gg CO_2 eq in 2017. Information on methodological tier levels, sources of AD and EFs, data gaps and reasons for the gaps, QA/QC measures for AD, emission estimates and key categories was clearly reported. Saint Lucia used the Collect Earth tool to develop its land use and land-use change matrix for 2000–2018. Land was classified into 16 categories and analysed over the period. Most EFs were obtained from the 2006 IPCC Guidelines or the 2019 Refinement to the 2006 IPCC Guidelines, but country-specific EFs derived from the 2009 national forest inventory were used for biomass stock in forest land. The carbon pools reported on were above-ground biomass, below-ground biomass, deadwood and litter.

45. Information on soil carbon and HWP was not reported in Saint Lucia's BUR. However, the Party explained in its NIR that soil carbon and HWP could not be estimated owing to the limited information available. The Party indicated that it considers this an area for improvement in future GHG inventory reporting.

46. Information on CH_4 and N_2O emissions from biomass burning on forest land was not reported in Saint Lucia's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that biomass burning was accounted for under the

Collect Earth methodology, but non-CO_2 gases were not estimated. The Party indicated that it considers this an area for improvement in future GHG inventory reporting.

47. For the waste sector, information was clearly reported on GHG emissions, methodological tier levels, AD and their sources, EFs and key categories. To calculate CH_4 emissions from solid waste disposal sites (4.A), the tier 1 first-order decay model from the 2006 IPCC Guidelines was used with AD on population from national statistics and regional default values for waste generation from the 2006 IPCC Guidelines. CH_4 and N_2O emissions from composting (biological treatment of solid waste (4.B)) were estimated using the tier 1 methodology from the 2006 IPCC Guidelines with AD (amount of waste composted) from the Vieux Fort disposal site. CH_4 emissions from wastewater treatment and discharge (4.D) were estimated using the tier 1 methodology from the 2006 IPCC Guidelines with country-specific AD (population and fraction of use of different wastewater treatment types) and derived AD from IPCC default values (industrial wastewater production). The key category for the sector was solid waste disposal on land (4.A).

48. Information on composting was not clearly reported in Saint Lucia's BUR, with composting emissions from 2004 to 2014 being reported as "NO". During the technical analysis, the Party acknowledged that this was not correct, and these emissions should have been reported as "NE". Furthermore, information on CH_4 emissions from unmanaged and uncategorized solid waste disposal sites was not reported in the BUR or the NIR. However, while this category had not been reported as "NO", the Party provided relevant clarification during the technical analysis, indicating that there are no such solid waste disposal sites in Saint Lucia. Additionally, the Party did not report on CO_2 and N_2O emissions or provide any information for incineration and the open burning of waste in the BUR. During the technical analysis, the Party clarified that, while notation keys were not used throughout the time series, these activities and thus emissions do not occur in the country. Furthermore, the Party indicated that data collection in the waste sector is a challenge, but that systems will be put in place to collect and compile data in order to estimate emissions in the waste sector.

49. The BUR provides an update to some of the GHG inventories reported in the Party's NC2 and NC3. The information reported provides an update of the Party's NC3, which addresses anthropogenic emissions and removals for 2005–2010. The update was carried out for 2000–2010 using the methodologies contained in the 2006 IPCC Guidelines, thus generating a consistent 19-year time series. The Party reported that it recalculated emissions for the energy, IPPU, AFOLU and waste sectors for 2000–2010 owing to changes in methodology, tier, EFs and assumptions related to activity levels, as well as to reallocation of emissions sources and availability of better-quality AD. The Party reported that recalculations were performed using updated data, EFs from the 2006 IPCC Guidelines and higher-tier methods for estimating HFC emissions and resulted in an increase of estimated emissions for 2010 by 29 per cent and decreases in estimated emissions for 2000 and 2005 by 11 and 17 per cent, respectively.

50. Information on recalculated emissions for 1994, which was reported in Saint Lucia's initial national communication was not reported in the Party's BUR. Furthermore, summary sheets for the recalculated 2000, 2005 and 2010 emission estimates were not reported in Saint Lucia's BUR. The reason for this was not clear to the TTE. During the technical analysis, the Party clarified that it lacked the AD to update emission estimates for 1994 and that it had not compiled summary sheets for the previous inventory years using information from the inventory estimation spreadsheets.

51. Saint Lucia described in its BUR the institutional framework for the preparation of its 2018 GHG inventory. The Party reported that the Department of Sustainable Development is the governmental body responsible for its climate change policy and GHG inventory, which was prepared with the support of the United Nations Environment Programme, which assisted Saint Lucia in designing its GHG inventory system. The Party identified areas for improvement in the inventory's institutional arrangements, including enhancing the capability of the Energy Division of the Department to collect data and develop the energy balance, and training departmental staff in a strategic manner, one that could ensure continuous production of reports and mitigate the impacts of staff turnover.

52. Information on the roles of the institutions identified as data providers in the 2018 inventory data-collection and QA/QC processes was not clearly reported in Saint Lucia's BUR. It was not clear to the TTE how the current institutional arrangements and process for data collection could meet the requirements for robust data for developing the inventory in a continuous and timely manner. During the technical analysis, the Party clarified that the roles of data providers align with the needs of the country, which include developing data-collection templates, building the capacity of the inventory team and key data providers to collect AD that will further enhance the accuracy of the inventory, and decreasing the overall uncertainty associated with AD.

53. Saint Lucia clearly reported that a key category analysis was performed for both the level of and the trend in emissions, with and without land (category 3.B).

54. The BUR provides information on QA/QC measures for all sectors. Saint Lucia reported information on QC of AD, consistency and completeness of the time series, applicability of selected EFs and GWP values, measures to avoid double counting, QA/QC of emission estimates, and the inventory QA/QC log. The TTE commends Saint Lucia for providing information in accordance with the IPCC good practice guidance. The Party identified improvements in its reporting since its NC3, such as the use of more suitable EFs for enteric fermentation (i.e. EFs for Latin America in place of the previously used EFs for North America), the use of the tier 2 methodology for some categories in the IPPU sector, and the reallocation of emissions from lubricant use from the energy sector to the IPPU sector.

55. Saint Lucia reported information on CO_2 fuel combustion emissions using only the sectoral approach. The information reported indicates that the combustion emissions estimated under the sectoral approach are 546.02 Gg CO_2.

56. Information on CO_2 emissions from fuel combustion estimated using the reference approach was not reported in Saint Lucia's BUR. However, the Party provided relevant clarification in its BUR, indicating that insufficient statistics on energy supply and consumption prevented it from applying the reference approach. The TTE considers that the information available in the "SLU energy balance 2000–2018" Excel spreadsheet, which the Party provided to the TTE during the technical analysis, could enable application of the reference approach for estimating CO_2 emissions from fuel combustion. During the technical analysis, the Party indicated its need for capacity-building to fulfil this reporting requirement.

57. Information was reported on international aviation and marine bunker fuels for 2018.

58. Saint Lucia reported information on the uncertainty assessment (level) of its national GHG inventory. The uncertainty analysis was based on approach 1 (the error propagation method) in the 2006 IPCC Guidelines and covers all source categories and all direct GHGs. The results obtained, as reported in the BUR, reveal that the total uncertainty for the inventory is 24 per cent and the trend uncertainty is 41 per cent.

59. Information on the uncertainty related to AD for land (3.B) was not clearly reported in Saint Lucia's BUR. During the technical analysis, the Party clarified that expert consultations were held regarding uncertainties associated with the area covered by different forest types. Building on these consultations, the Party aims to include uncertainty estimates for forest biomass (combining uncertainty values for AD and EFs) in future reporting. Furthermore, information on the underlying assumptions used for the uncertainty assessment and the uncertainty level of the country-specific EFs from the national forest inventory used for biomass carbon stocks in forest land was not reported in Saint Lucia's BUR. During the technical analysis, the Party shared with the TTE relevant information on underlying assumptions and expert consultations held to determine the uncertainty level of country-specific EFs. The Party indicated its intention to, as a matter of priority, reduce the large uncertainties associated with the inventory for future submissions.

60. The TTE noted that the transparency of the information reported on GHG inventories could be further enhanced by addressing the areas noted in paragraphs 28, 29, 32, 34, 35, 38, 41, 46, 48, 50, 52, 56, and 59 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

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

62. The information reported provides a clear and comprehensive overview of the Party's mitigation actions and their effects. In its BUR, Saint Lucia reported information on its national context and framed its national mitigation planning and actions in the context of its NDC and National Environment Policy. Saint Lucia submitted its first NDC in 2015, in which it set a target of a 16 per cent reduction in emissions compared with the 'business as usual' projections by 2025 and a 23 per cent reduction by 2030. The focus was reducing emissions associated with energy use, namely in electricity generation and transportation. In 2021, Saint Lucia submitted an updated NDC with increased ambition: a 7 per cent reduction in GHG emissions for the energy sector (i.e. electricity generation and transportation) compared with the 2010 level by 2030. The Party reported that its mitigation target, as reflected in its NDC, shows the country's commitment to tackling climate change and contributing to reducing global emissions.

63. The framework for environmental management in the country is provided by the National Environment Policy and mechanisms for policy implementation are provided by the National Environmental Management Strategy. Under this Strategy, the objectives, activities, performance indicators and responsible agencies for each desired policy outcome are identified. However, while the Strategy was developed in 2004 and revised in 2014, it is yet to be approved. As part of its efforts to strengthen its institutional framework for adaptation and mitigation, Saint Lucia has prepared a draft climate change bill (see para. 21 above). Climate change has been mainstreamed in and integrated into its development plans, including mitigation. The Party reported the estimated emission reductions or emissions avoided at the sectoral level and indicated that if all actions are implemented and sustained, the cumulative GHG emission reductions achieved will be 122.8, 224.8 and 350.1 Gg CO_2 eq by 2025, 2030 and 2050, respectively, or 430.2 Gg CO_2 eq by 2050 with more aggressive deployment of renewables.

64. The Party reported a summary of its sectoral mitigation actions in tabular format in accordance with decision 2/CP.17, annex III, paragraph 11. The Party also reported information on its mitigation actions in narrative format.

65. Saint Lucia reported a total of 34 mitigation actions, most of which were updated from those reported in its NC3, and which were shown to align with at least 12 of the Sustainable Development Goals. The actions cover four sectors, with the majority (24) in the energy sector (i.e. energy use, electricity generation and transportation). The other mitigation actions are in the waste (five), AFOLU (four) and IPPU (one) sectors.

66. Consistently with decision 2/CP.17, annex III, paragraph 12(a), Saint Lucia clearly reported the names of mitigation actions or groups of actions, coverage (sector and gases) and progress indicators in the BUR (tables 10–15, with tables 44–77 in the annex II to the BUR providing additional details). A clear description of mitigation actions, as well as information on quantitative goals, was provided in the BUR.

67. Saint Lucia clearly reported information on methodologies and assumptions, the objectives of the actions and steps taken or envisaged to achieve those actions for all mitigation actions in all sectors.

68. The mitigation actions for the energy sector focus mainly on energy efficiency and renewable energy sources and were reported as ongoing, planned or proposed. The estimated outcomes of the nine actions on energy use relate to increasing the use of electricity and improving energy efficiency by, for example, increasing the energy efficiency of electrical appliances in the residential and commercial sectors by 0.5 per cent annually, retrofitting approximately 22,000 high-pressure sodium street lights to light-emitting diode lights by 2025 and reducing energy consumption both in schools and through system losses in water supply by 20 per cent by 2030. The broad aim of the seven electricity generation actions is to increase the contribution of renewable energy (i.e. distributed solar, solar, wind and

geothermal) to electricity generation from 4.1 MW in 2019 to 72.0 MW by 2030, which would, in turn, reduce diesel-fired generation from 88.4 to 52.1 MW over the period. More aggressive deployment of renewables would reduce diesel-fired electricity generation to 50.1 MW and increase renewable energy generation to 84.0 MW by 2030. The Party reported that if all mitigation actions relating to electricity generation and commercial use of energy are implemented and sustained, the anticipated GHG emissions reduced or avoided amount to 152.5 Gg CO_2 eq by 2030.

69. For transport, the eight mitigation actions involve increasing the share of privately owned electric vehicles to 33 per cent of sales, increasing the share of electric vehicles used in public transport (i.e. taxis and buses) to 10 per cent of sales, replacing 30 per cent of the government fleet with electric vehicles and expanding the use of public transport by 30 per cent, all by 2030. The Party reported that if all actions are implemented and sustained, the anticipated GHG emissions reduced or avoided in the transport sector amount to 19.2 Gg CO_2 eq by 2030.

70. The mitigation action for the IPPU sector focuses on educating the public on and raising public awareness of refrigeration and air conditioning and was reported as ongoing. This action is expected to reduce HFC emissions by 10 per cent by 2029 and 80 per cent by 2045 compared with the 2019 level. The Party reported that if all actions are implemented and sustained, the anticipated GHG emissions reduced or avoided in IPPU sector amount to 1.1 Gg CO_2 eq by 2030.

71. The mitigation actions for the AFOLU sector focus on agroforestry practices, reforestation, and protection and rehabilitation of ecosystems and were reported as ongoing. These actions involve managing an additional 2,500 ha grassland by agroforestry practices, reforesting 2,500 ha degraded forest land, and protecting and rehabilitating 500 ha seagrass beds, reefs and mangroves to improve carbon sequestration and enhance carbon sinks, all by 2030. The Party reported that if all actions are implemented and sustained, the anticipated GHG emissions reduced or avoided in AFOLU sector amount to 52.1 Gg CO_2 eq by 2030.

72. The mitigation actions for the waste sector focus on composting and solid waste management and were reported as planned or proposed. These actions broadly seek to educate the public and the private sector on options for reducing waste. Saint Lucia aims to develop regulations for end-of-life electric vehicles, the use of biogas from waste recovery and the reduction of methane emissions in the waste sector.

73. Information on emissions reduced or avoided for groups of sectoral mitigation actions was reported in Saint Lucia's BUR. During the technical analysis, the Party clarified that it needs capacity-building in reporting on results in terms of estimated emission reductions for individual mitigation actions.

74. Saint Lucia reported in its BUR that it has no projects registered under the UNFCCC clean development mechanism process or any other international market mechanism. Saint Lucia intends to pursue national-level market-based instruments (such as a cap-and-trade system and carbon-offsetting) in the future and is in the process of developing national REDD+ activities.

75. Saint Lucia 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 has developed a domestic MRV system for mitigation actions, including an MRV portal, to track quantifiable, reportable and verifiable nationally appropriate mitigation actions across key sectors. The Party intends to establish an MRV framework for mitigation assessment, including by developing an inter-agency memorandum of understanding under which agencies will report information on the mitigation actions they are responsible for implementing to the Department of Sustainable Development, as well as a mitigation action implementation report, which will enable the Department to compile the information it receives. However, Saint Lucia will need to further develop the legal framework for both implementing and tracking MRV of mitigation actions. This will involve developing institutional arrangements for projecting estimated impacts and gathering data on actual impacts of mitigation actions.

76. Information on the operational status of the MRV system for mitigation actions was not clearly reported in Saint Lucia's BUR. During the technical analysis, the Party clarified that the MRV portal has been developed and is currently being populated with relevant data to make it fully operational. Agencies have access to the system and can add information.

77. The TTE noted that the transparency of the information reported on mitigation actions could be further enhanced by addressing the area noted in paragraphs 73 and 76 above, which could facilitate a better understanding of the information reported on mitigation actions.

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

78. As indicated in table I.3, Saint Lucia 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.

79. Saint Lucia 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, Saint Lucia identified its technical, institutional, financial, regulatory and policy limitations in implementing climate action as constraints. The Party reassessed the gaps and constraints it had identified in its NCs to determine their status (i.e. whether gaps persist, whether efforts to address gaps are ongoing) and progress in addressing those gaps and constraints through capacity-building and technical support. The Party highlighted barriers to increasing the data management capacity of relevant stakeholders and raising their awareness of the benefits of data management and sharing. Furthermore, Saint Lucia identified key priorities and proposed actions and support needs, including in the form of technology needs, to address gaps in those key areas.

80. Specific, detailed information on financial, technical and capacity-building needs (e.g. budget estimates) for the actions proposed to close the gaps in priority areas was not reported in Saint Lucia's BUR and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that it has developed indicative budget estimates for climate change adaptation activities under the NAP process, but these estimates were not in a suitable format for reporting in the BUR. Owing to human resource constraints, Saint Lucia lacks the capacity to gather and report detailed information on its financial, technical and capacity-building needs relating to implementing climate action.

81. Saint Lucia reported information on financial resources, technology transfer, capacity-building and technical support received in accordance with decision 2/CP.17, annex III, paragraph 15. The Party reported information on the support it received for 38 climate change projects (such as project name, objectives, donor or funding agency, implementing agency and budget). For implementing climate actions, Saint Lucia received a total of USD 286.1 million from Parties included in Annex II to the Convention and some non-Annex I Parties (Mexico and Morocco), and from donors and funding agencies (such as the Adaptation Fund, the Caribbean Development Bank, the GCF, the GEF, the Inter-American Development Bank and the World Bank). The Party reported that it received USD 431,400 from the GEF for preparing its first BUR.

82. Information that allows categorization of the support received (i.e. as financial, technology transfer, technical or capacity-building) for specific climate change activities reported (BUR chaps. 5.5.1–5.5.2) was not clearly reported in Saint Lucia's BUR. During the technical analysis, the Party clarified that such information was not specifically collected; however, given enough time, the Party could disaggregate and present the information that it does have available by type of support received for each activity.

83. Saint Lucia 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, Saint Lucia noted that several key technology needs identified through stakeholder consultations and one-on-one discussions during the development of various strategy documents, in particular the NAP, was the basis for the technology needs reported in the BUR.

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 80 and 82 above, which could facilitate a better understanding of the information reported on needs and support received.

5. Any other information

85. Saint Lucia reported in its BUR (chap. 6) information on awareness-raising and education on the following topics:

(a) Climate change and response to climate change. Saint Lucia reported on its institutional framework for public participation in climate action and its climate change communication strategy, which form part of its NAP. The Party has implemented several initiatives at the national level to provide education and training to the public and promote public awareness of issues related to climate change through audiovisual broadcasts, creative arts endeavours, websites and social media platforms;

(b) Scientific research and observation. Saint Lucia reported that it developed its Climate Change Research Policy 2020–2030 and Climate Change Research Strategy 2020–2030 to promote the generation of and access to science-based information for use in, for example, the national decision-making process on climate change matters. The Party also reported on challenges, gaps, needs and priorities related to improving research and systematic observation in the country;

(c) Livelihood protection and vulnerable populations. Saint Lucia reported on its involvement in relevant policies, initiatives and projects, both domestic, such as its National Social Protection Policy 2015, national gender equality policy and strategic plan, and Disaster Vulnerability Reduction Project, and regional, such as the Regional Agreement on Access to Information, Public Participation and Justice in Latin America and the Caribbean and the Organisation of Eastern Caribbean States Strategic Plan 2020–2030 for Human Mobility in the Context of Climate Change. The aim of these interventions is to guide the programmes under the country's social safety net in increasing the resilience of vulnerable groups when faced with the negative impacts of climate change;

(d) Adequacy of technical personnel (the number of national experts). Saint Lucia reported that human resource constraints are hampering the planning and execution of climate change activities. There is an urgent need to build and retain human capacity and technical expertise in climate change at the local level;

(e) Capacity-building activities, options and priorities. Saint Lucia reported on several projects undertaken to build capacity in various areas. The National Adaptation Plan Roadmap and Capacity Development Plan 2018–2028 outlines both the individual skills and the institutional capacities and functions that need to be prioritized and strengthened.

D. Identification of capacity-building needs

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

(a) Developing capacity, through increased training, to meet UNFCCC reporting requirements, specifically those of the enhanced transparency framework under the Paris Agreement;

(b) Developing capacity, through increased training, to meet additional reporting requirements, if any, for non-Annex I Parties under the ETF;

(c) Enhancing capacity to develop a system or process as well as technical capability for producing energy balances on a continuous basis;

(d) Enhancing capacity to develop and implement a system for data collection from industrial activities;

(e) Enhancing capacity to collect and compile the data required for estimating PFCs and SF_6;

(f) Enhancing capacity to estimate and report on emissions of sulfur oxides;

(g) Enhancing capacity to collect data on forest biomass burning, building on the present means of doing so;

(h) Enhancing capacity to collect updated, country-specific AD for both enteric fermentation and N_2O emissions from managed lands;

(i) Enhancing capacity to collect data on the biological treatment of solid waste;

(j) Enhancing capacity to collect data on the incineration and open burning of waste;

(k) Enhancing capacity to develop templates that aid data collection and to archive data;

(l) Developing capacity, through increased training, to apply IPCC guidelines and develop the GHG inventory, taking into account the circumstances of SIDS, such as data availability, with the aim of increasing the capacity of experts and increasing the number of technical experts in various sectors;

(m) Enhancing capacity of the inventory team and data providers to collect data as well as to fill existing data gaps, reduce uncertainties, develop country-specific EFs and gather the AD required for applying higher-tier methodologies for key categories;

(n) Enhancing capacity to move beyond expert consultations and instead apply uncertainty calculations for biomass stock in the forest land category;

(o) Enhancing capacity to conduct quantitative uncertainty analyses for AD, EFs and emissions, and to improve associated documentation in order to increase the accuracy of estimates with higher levels of associated uncertainty;

(p) Enhancing capacity to use the reference approach for estimating CO_2 emissions from combustion processes;

(q) Enhancing capacity to use IPCC inventory software, create and prepare summary tables and apply notation keys;

(r) Developing capacity, through increased training, to use modelling software (e.g. Low Emissions Analysis Platform) for developing GHG and mitigation action projections;

(s) Developing capacity, through increased training, to conduct mitigation assessments;

(t) Enhancing capacity to collect the data required to report estimated emissions reduced or avoided for each mitigation action reported;

(u) Enhancing capacity to collect data for estimating the non-GHG effects (co-benefits) of sectoral mitigation actions;

(v) Enhancing capacity to prepare mitigation-related project proposals for funding on the basis of identified needs and recommendations made by relevant stakeholders;

(w) Enhancing capacity to conduct technology and financial needs assessments to better capture quantitative information consistently with identified needs;

(x) Enhancing capacity to collect and report specific information on financial, technical and capacity-building needs for climate change activities;

(y) Enhancing capacity to collect, report and categorize information on the type (financial, technology transfer, technical or capacity-building) of support received for specific climate change activities;

(z) Building capacity to conduct MRV of capacity-building and technology needs such as through the application of best practices and most practical methods.

87. The TTE noted that, in addition to those identified during the technical analysis, Saint Lucia reported the following capacity-building needs in its BUR, which include capacity-building needs for future BURs:

(a) Strengthening national capacity to collect data on climate change and to raise awareness of the benefits of data management and sharing;

(b) Developing national capacity to use processes, tools and equipment for data management;

(c) Building technical and institutional capacity to implement proposed climate change adaptation and mitigation actions in priority areas such as cross-cutting, water, agriculture, fisheries, infrastructure and spatial planning, natural resources management, resilient ecosystems, education, health, tourism, energy efficiency, electricity generation and transport;

(d) Strengthening individual capacity and skills of national experts to implement the NAP in areas such as communications, reporting, results-based management, project management, coordination, climate change education, climate change integration into national planning processes, climate action implementation, climate risk assessment, staff motivation, human resources management, strategic leadership, information technology and data management, listening and interpretation, and local, national and international cooperation.

III. Conclusions

88. The TTE conducted a technical analysis of the information reported in the first BUR of Saint Lucia 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 on a continuous basis; the national inventory of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol, including an NIR; 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 domestic MRV. During the technical analysis, additional information was provided by Saint Lucia on its national GHG inventory and mitigation actions and their effects. The TTE concluded that the information analysed is partially transparent.

89. Saint Lucia reported information on the institutional arrangements relevant to the preparation of its BURs. The information covers key aspects of the institutional arrangements, including legislation to strengthen the MRV system. The roles and responsibilities of the Department of Sustainable Development and other institutions involved in MRV are outlined in the draft climate change bill (2018), which, when passed into law, will provide the legal mandate for operation of the MRV system. The MRV arrangements are designed at the national level and cover mitigation (trends and projections, and NDC tracking), adaptation and loss and damage (trends and scenarios, and adaptation tracking) and support (i.e. finance, capacity-building and technology) needed and received. Saint Lucia has taken significant steps to establish institutional arrangements that enable sustainable preparation of its BURs, such as making organizational improvements and establishing knowledge-sharing procedures to facilitate sectoral information transfer.

90. In its first BUR, submitted in 2021, Saint Lucia reported information on its national GHG inventory for 2000–2018. GHG emissions and removals of CO_2, CH_4, N_2O and HFCs were reported for most of the relevant sources and sinks. The inventory was developed on the basis of the 2006 IPCC Guidelines, the 2019 Refinement to the 2006 IPCC Guidelines and the *Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook*, 3rd edition (2005). The total GHG emissions for 2018 were reported as 509.44 Gg CO_2 eq (including land and HWP) and 736.07 Gg CO_2 (excluding land and HWP). Three key categories and main gases were identified: energy industries (1.A.1) (CO_2), road transportation (1.A.3.b) (CO_2) and forest land remaining forest land (3.B.1.a) (CO_2). Estimates of emissions and removals of CO_2, CH_4 and N_2O were not reported for some categories, for example soil carbon pool (3.B) and HWP (3.D.1) in the AFOLU sector and process uses of carbonates (2.A.4) and paraffin wax use (2.D.2) in the IPPU sector, owing to difficulties in obtaining the

necessary AD, as clarified by the Party during the technical analysis. Furthermore, notation keys were not used consistently for some categories and gases where numerical data were not available.

91. Saint Lucia reported information on mitigation actions and their effects in both tabular and narrative format and framed them in the context of its NDC and the National Environment Policy. The Party provided information on emission reduction targets of selected mitigation actions (baseline and mitigation scenarios) for 2025, 2030 and 2050. The mitigation actions focus on energy efficiency, renewable energy sources, agroforestry practices, reforestation, protection and rehabilitation of ecosystems, composting and solid waste management. If all actions are implemented and sustained, GHG emissions reduced or avoided are expected to be 171.7 Gg CO_2 eq (energy sector), 1.1 Gg CO_2 eq (IPPU sector) and 52.1 Gg CO_2 eq (AFOLU sector) by 2030. Saint Lucia also reported that, if the mitigation actions reported in its BUR are implemented, the cumulative GHG emission reductions achieved will be 122.8, 224.8 and 350.1 Gg CO_2 eq by 2025, 2030 and 2050, respectively, or 430.2 Gg CO_2 eq by 2050 with more aggressive deployment of renewables.

92. Saint Lucia reported information on key constraints, gaps and related needs. Information was reported on the technical, technology transfer and capacity-building support received, including support for key mitigation actions. The Party also reported that it received financial support of USD 431,400 from the GEF for preparing its first BUR. The Party further reported information on the support received from a variety of international sources, including Parties and non-government donors. While some information on technology needs was reported, specific, detailed information (e.g. budget estimates) on financial, technical and capacity-building needs relating to implementing climate action, was not reported owing to a lack of capacity to gather and report detailed information on these needs, as clarified during the technical analysis.

93. The TTE, in consultation with Saint Lucia, identified the 28 capacity-building needs listed in chapter II.D above and needs for capacity-building 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. Identified capacity-building needs also aim to facilitate transition to the ETF. Saint Lucia prioritized the capacity-building needs referred to in paragraph 86(a–c), (h), (i), (k–s) and (w–x) above.

Annex I

Extent of the information reported by Saint Lucia in its first biennial update report

Table I.1
Identification of the extent to which the elements of information on greenhouse gases are included in the first biennial update report of Saint Lucia

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
Decision 2/CP.17, paragraph 41(g)	The first BUR shall cover, at a minimum, the inventory for the calendar year no more than four years prior to the date of the submission, or more recent years if information is available, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years.	Yes	Saint Lucia submitted its first BUR in September 2021; the GHG inventory reported is for 2018.
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	Saint Lucia used the 2006 IPCC Guidelines together with the 2019 Refinement to 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.	No	In accordance with the 2006 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF, Saint Lucia provided background information on the sources of AD; however, updated data on activity levels were not provided for any of the GHG emissions sources and sinks.
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.	No	Comparable information was not 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	The time series reported in the BUR does not include 1994–1999.
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).	No	Saint Lucia did not report summary information tables of inventories for previous submission years reported in its NCs (1994, 2000 and 2010).
Decision 2/CP.17, annex III, paragraph 9	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, annex, chapter III (National greenhouse gas inventories), including:		

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
	(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 table 1 of annex III to the BUR.
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF_6).	Partly	Comparable information was reported in table 1 of annex III to the BUR; however, HFC emissions were not presented on a gas-by-gas basis or in units of mass.
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex.	Yes	Saint Lucia submitted a stand-alone NIR as part of its BUR submission.
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	Information on institutional, legal and procedural arrangements for compiling the GHG inventory was reported.
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;	Partly	Saint Lucia did not report CO_2 emissions for some subcategories (e.g. other process uses of carbonates (2.A.4), paraffin wax use (2.D.2), urea application (3.C.3) and HWP (3.D.1)).
	(b) CH_4;	Partly	Saint Lucia did not report CH_4 emissions from biomass burning on forest land (3.C.1).
	(c) N_2O.	Partly	Saint Lucia did not report N_2O emissions from biomass burning on forest land (3.C.1).
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	
	(c) SF_6.	Yes	Information on SF_6 was reported as “NE”.
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	

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
	(b) Nitrogen oxides;	Yes	
	(c) NMVOCs.	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.	No	Saint Lucia did not report on other gases.
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.	No	The information was reported only for the sectoral approach.
Decision 17/CP.8, annex, paragraph 19	Non-Annex I Parties should, to the extent possible, and if disaggregated data are available, report emissions from international aviation and marine bunker fuels separately in their inventories:		
	(a) International aviation;	Yes	
	(b) Marine bunker fuels.	Yes	
Decision 17/CP.8, annex, paragraph 20	Non-Annex I Parties wishing to report on aggregated GHG emissions and removals expressed in CO_2 eq should use the GWP provided by the IPCC in its AR2 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	Saint Lucia used the 2006 IPCC Guidelines together with the 2019 Refinement to the 2006 IPCC Guidelines. Tier 1 methodology was used for most sectors and tier 2 methodology was used for some categories in the IPPU and AFOLU sectors.
	(b) Explanation of the sources of EFs;	Yes	Saint Lucia used EFs from the 2006 IPCC Guidelines, EMEP/EEA Guidebooks, and national and regional databases.
	(c) Explanation of the sources of AD;	Yes	Saint Lucia used AD from the 2006 IPCC Guidelines, EMEP/EEA Guidebooks, and national and regional databases.

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
	(d) If non-Annex I Parties estimate anthropogenic emissions and removals from country-specific sources and/or sinks that are not part of the Revised 1996 IPCC Guidelines, they should explicitly describe:	NA	
	(i) Source and/or sink categories;		
	(ii) Methodologies;		
	(iii) EFs;		
	(iv) AD;		
	(e) Parties are encouraged to identify areas where data may be further improved in future communications through capacity-building.	Yes	
Decision 17/CP.8, annex, paragraph 22	Each non-Annex I Party is encouraged to use tables 1–2 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	Notation keys were used.
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	
	(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 first biennial update report of Saint Lucia

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
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	The Party reported information in tabular format.

Decision	*Provision of the reporting guidelines*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
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	Information on nature, coverage, quantitative goals and progress indications for all actions was reported.
	(b) Information on:		
	(i) Methodologies;	Yes	
	(ii) Assumptions;	Yes	
	(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;	Yes	
	(ii) Progress of implementation of the underlying steps taken or envisaged;	Yes	
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible;	Yes	
	(e) Information on international market mechanisms.	Yes	Saint Lucia reported that it currently has no projects registered with the clean development mechanism or any other international market mechanism.
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 first biennial update report of Saint Lucia

Decision	*Provision of the reporting requirements*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on:		
	(a) Constraints and gaps;	Yes	
	(b) Related financial, technical and capacity-building needs.	No	Saint Lucia did not provide specific information (such as budget estimates) on financial, technical and

Decision	*Provision of the reporting requirements*	*Assessment of whether the information was reported*	*Comments on the extent of the information provided*
			capacity-building needs for the actions reported in BUR table 43, which were proposed to close its gaps.
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 that allows categorization of the support received for specific climate change activities was not clearly reported.
	(b) Information on technical support received from the GEF, Parties included in Annex II to the Convention and other developed country Parties, the GCF and multilateral institutions for activities relating to climate change, including for the preparation of the current BUR.	Yes	
Decision 2/CP.17, annex III, paragraph 16	With regard to the development and transfer of technology, non-Annex I Parties should provide information on:		
	(a) 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

A. Reports of the Intergovernmental Panel on Climate Change

IPCC. 1997. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. JL Houghton, LG Meira Filho, B Lim, et al. (eds.). Paris: IPCC/Organisation for Economic Co-operation and Development/International Energy Agency. Available at https://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html.

IPCC. 2000. *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*. J Penman, D Kruger, I Galbally, et al. (eds.). Hayama, Japan: IPCC/Organisation for Economic Co-operation and Development/International Energy Agency/Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/gp/english/.

IPCC. 2003. *Good Practice Guidance for Land Use, Land-Use Change and Forestry*. J Penman, M Gytarsky, T Hiraishi, et al. (eds.). Hayama, Japan: Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf.html.

IPCC. 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. S Eggleston, L Buendia, K Miwa, et al. (eds.). Hayama, Japan: Institute for Global Environmental Strategies. Available at http://www.ipcc-nggip.iges.or.jp/public/2006gl.

IPCC. 2019. 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. E Calvo Buendia, K Tanabe, A Kranjc, et al. (eds.). Geneva: IPCC. Available at https://www.ipcc-nggip.iges.or.jp/public/2019rf/index.html.

B. UNFCCC documents

First BUR of Saint Lucia. Available at https://unfccc.int/BURs.

NC1, NC2 and NC3 of Saint Lucia. Available at https://unfccc.int/non-annex-I-NCs.

C. Other documents

The following references may not conform to UNFCCC editorial style as some have been reproduced as received:

EEA 2005. Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook, 3rd edition. European Environment Agency. Available at https://www.eea.europa.eu/data-and-maps/indicators/net-energy-import-dependency/eea-2005.

Greenhouse Gas Inventory Report for the Forest and Land Use Sector (FOLU) of Saint Lucia 2000–2018.