



United Nations

FCCC/SBI/ICA/2024/TASR.1/DZA



Framework Convention on
Climate Change

Distr.: General
9 July 2025

English only

Technical analysis of the first biennial update report of Algeria submitted on 23 December 2023

Summary report by the team of technical experts

Summary

According to paragraph 41(a) of decision 2/CP.17, 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 Algeria, 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	<i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
2019 Refinement to the 2006 IPCC Guidelines	<i>2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
AD	activity data
AFOLU	agriculture, forestry and other land use
Annex I Party	Party included in Annex I to the Convention
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
EF	emission factor
ETF	enhanced transparency framework under the Paris Agreement
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	<i>Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories</i>
IPCC good practice guidance for LULUCF	<i>Good Practice Guidance for Land Use, Land-Use Change and Forestry</i>
IPPU	industrial processes and product use
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
N ₂ O	nitrous oxide
NA	not applicable
NC	national communication
NCV	net calorific value
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
Revised 1996 IPCC Guidelines	<i>Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories</i>
SF ₆	sulfur hexafluoride
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 paragraph 41(a) of decision 2/CP.17, 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 small island developing States 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 small island developing States 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 Algeria, 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, Algeria submitted its first BUR on 23 December 2023 as a stand-alone update report.
6. During the technical analysis, the Party clarified that it could not submit its first BUR earlier than 23 December 2023 owing to a delay in operationalizing the National Climate Change Agency due to institutional restructuring and budgetary constraints, a delay in submitting a funding request due to a revision of the institutional framework and the impact of the coronavirus disease 2019 pandemic on the work of experts.
7. The technical analysis of Algeria's BUR was conducted from 14 to 18 October 2024 in Bonn and was undertaken by the following TTE, drawn from the UNFCCC roster of experts on the basis of the criteria defined in paragraphs 2–6 of the annex to decision 20/CP.19: Zammath Khaleel (former member of the Consultative Group of Experts from Maldives), Mwangi James Kinyanjui (Kenya), Kyoko Miwa (Japan), Robert Pismo (Cameroon) and Koen E. L. Smekens (Belgium). Mwangi James Kinyanjui and Kyoko Miwa were the co-leads. The technical analysis was coordinated by Sohel Pasha (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 Algeria engaged in consultation¹ on the identification of capacity-building needs for preparing BURs and participating in ICA. Following the technical analysis of Algeria's first BUR, the TTE prepared and shared a draft summary report with Algeria on 4 March 2025 for its review and comment. Algeria, in turn, provided its feedback on the draft summary report on 14 June 2025.
9. The TTE responded to and incorporated Algeria's comments referred to in paragraph 8 above and finalized the summary report in consultation with the Party on 1 July 2025.

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 paragraph 15 of the annex to decision 20/CP.19, 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 guidelines² 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,³ 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 Algeria's BUR outlined in paragraph 10 above.

B. Extent of the information reported

12. The elements of information referred to in paragraph (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 paragraph 15(a) of the annex to decision 20/CP.19, 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 aim of the technical analysis referred to in paragraph 10(b) above is to increase the transparency of the information reported by 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.

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

² Decision 2/CP.17, annex IV.

³ Decision 2/CP.17, annex III.

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 paragraphs 3–5 of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties⁴ and they could report similar information in their BUR, which is an update of their most recently submitted NC.

18. Algeria 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 and economy that might affect the Party's ability to deal with mitigating and adapting to climate change, as well as information on national circumstances and constraints in relation to 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. Algeria transparently reported in its first BUR information on its existing and 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 national coordinating entities, 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 Directorate of Multilateral Affairs of the Ministry of Foreign Affairs and National Community Abroad and the Directorate of Climate Change of the Ministry of Environment and Renewable Energy coordinate the preparation of NCs and BURs. The TTE noted planned improvements to the information reported in the BUR, including the establishment of an MRV system for GHG inventories and mitigation actions covering all sectors.

20. Algeria reported in its first BUR information on its domestic MRV arrangements. The description covers key aspects of the institutional arrangements, including mechanisms for compiling and preparing its first BUR; the national GHG inventory; the MRV mechanism for the energy sector; the MRV mechanisms for the IPPU, AFOLU and waste sectors; the new national MRV energy system, its inventory improvement plan and the support received; and support required in terms of MRV enhancement. The MRV arrangements are designed at the national level and cover four main areas: the BUR preparation process, the GHG inventory system, the preparation of nationally appropriate mitigation actions, and the MRV of support needed and received. The MRV enhancement for the GHG inventory and nationally appropriate mitigation actions (i.e. the process of data collection and estimation, and the roles and responsibilities of stakeholders) will be done through the institutions responsible for coordinating information on climate change and the entities participating in the development of the GHG inventory and sectoral mitigation measures.

21. Algeria reported in its BUR (section 2.2.6) information on its areas for improvement for future BURs. The Party's current initiative for enhancing its institutional arrangements is adopting a new status for the National Climate Change Agency in line with the requirements of Algeria's commitments in terms of compliance with requirements under the ETF. Another initiative relates to establishing a sustainable and effective MRV system, which is under preparation. The TTE commends the Party for the clear and comprehensive reporting on its proactive approach to preparing for ETF implementation.

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

22. As indicated in table I.1, Algeria reported information on its GHG inventory in its BUR mostly in accordance with paragraphs 3–10 of the UNFCCC reporting guidelines on

⁴ Decision 17/CP.8, annex.

BURs and paragraphs 8–24 of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties.

23. Algeria submitted its first BUR in 2023 and the GHG inventory reported is for 1990–2020. The GHG inventory is consistent with the requirements for the reporting time frame.

24. Algeria 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.⁵ During the technical analysis, the Party provided additional tables that contained estimated emissions and removals and notation keys for the reported source and sink categories for the entire time series.

25. GHG emissions and removals reported in the BUR covering the 1990–2020 inventories were estimated using tier 1 methodology from the 2006 IPCC Guidelines, and in some cases EFs from the 2019 Refinement to the 2006 IPCC Guidelines were applied. For the IPPU and agriculture sectors, tier 2 methodologies from the 2006 IPCC Guidelines were used for two subcategories: estimation of CO₂ emissions from cement production (2.A.1) and CH₄ emissions from enteric fermentation in dairy cattle (3.A.1.a). The Party reported its intention to use higher-tier methodologies for reporting emissions in its inventory improvement plan.

26. Information on AD and EFs used and their sources was reported in the NIR, including a narrative explanation and tables associated with the methodology used, and emission estimates by category and gas.

27. The TTE identified inconsistencies in the emissions reported in the NIR and the BUR (see the summary table of GHG emissions for 2020 in BUR annex III). During the technical analysis, the Party explained the reasons for those inconsistencies and provided additional information to clarify the differences between the NIR and the BUR.

28. Information on the Party's total GHG emissions by gas for 2020 is outlined in table 1 in Gg CO₂ eq. It shows an increase in emissions of 134.1 per cent including land and HWP and 129.9 per cent excluding land and HWP since 1990 (90,394.26 and 95,948.76 Gg CO₂ eq, including and excluding land and HWP respectively).

Table 1
Greenhouse gas emissions by gas of Algeria for 2020

<i>Gas</i>	<i>GHG emissions (Gg CO₂ eq) including land and HWP^a</i>	<i>% change 1990–2020</i>	<i>GHG emissions (Gg CO₂ eq) excluding land and HWP^a</i>	<i>% change 1990–2020</i>
CO ₂	158 786.85	154.3	167 832.76	146.6
CH ₄	42 752.91	85.9	42 685.12	86.0
N ₂ O	8 829.44	78.0	8 784.73	78.2
HFCs	1 206.05	NA	1 206.05	NA
PFCs	NE	NA	NE	NA
SF ₆	36.19	22 950.1	36.19	22 950.1
Other	NE	NA	NE	NA
Total	211 611.44	134.1	220 544.85	129.9

Note: GWPs used are consistent with those from the AR4 based on the effects over a 100-year time-horizon of GHGs.

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

29. Information on other emissions was reported under fugitive emissions (category 1.B.2), and the Party reported 12,188.23 Gg NMVOCs as part of the additional information provided during the technical analysis.

30. Algeria applied notation keys in NIR 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.

⁵ <https://unfccc.int/BURS>.

31. In limited instances, the notations keys used in the tables and the background information reported in the main body of the NIR were not consistent. For example, the notation key “NE” was used for ethylene production (category 2.B.8.b) for the period 2012–2020, despite the fact that ethylene production stopped in 2011. Similarly, the TTE noted internal inconsistencies in the NIR between the notation keys in the tables and the explanation given in the text on CH₄ emissions from industrial wastewater (category 5.D.2). During the technical analysis, the Party confirmed that the identified inconsistencies were largely due to editorial errors in the text.

32. Algeria reported 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. Noting that all land area is classified as managed, the Party clearly described the approaches used for representing land areas and provided a description of each land-use area as adopted from the 2006 IPCC Guidelines. Further, the Party provided time-series information on each land-use area for 1990–2020 in NIR table 563.

33. The shares of emissions that different sectors contributed to the Party’s total GHG emissions excluding land and HWP (categories 3.B and 3.D), as reported by the Party, in 2020 are reflected in table 2.

Table 2

Shares of greenhouse gas emissions by sector of Algeria for 2020

<i>Sector</i>	<i>GHG emissions (Gg CO₂ eq)</i>	<i>% share^a</i>	<i>% change 1990–2020</i>
Energy	179 671.10	81.5	166.3
IPPU	12 166.30	5.5	–11.8
AFOLU	10 641.84	8.9	87.5
Livestock (category 3.A)	17 123.23	7.8	66.7
Land (category 3.B)	–8 933.41	NA	60.8
Aggregate sources and non-CO ₂ emissions sources on land (category 3.C)	2 452.02	1.1	155.6
HWP and other emissions (category 3.D)	NE	NA	NA
Waste	9 132.21	4.1	164.3

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

34. Algeria reported information on its use of GWP values consistent with those provided by the IPCC in its AR4 based on the effects over a 100-year time-horizon of GHGs.

35. For the energy sector, information was clearly reported on GHG emissions by subcategory and by gas for 1990–2020. In the NIR, this information was reported on a higher disaggregation level by subcategory. In addition, information on AD and their sources, EFs, NCVs and key categories was reported in the NIR. Within the energy sector, energy industries (category 1.A.1) comprise the largest emission source, followed by transport (category 1.A.3) and fugitive emissions from fuels (category 1.B). Emissions from transport (category 1.A.3) and households (part of category 1.A.4) were reported to have the highest increase since 1990.

36. Information on the reason for using notation keys “NE” and “IE” for some years, together with AD or emission values for other years, in the time series of the same (sub)category in the energy sector was not clearly reported in Algeria’s NIR. The Party explained in the NIR that revision of the underlying energy balances for the whole time series and further fuel disaggregation are some of its planned improvements with the highest priority in this sector.

37. For the IPPU sector, information was mostly clearly reported on GHG emissions by subcategory for 1990–2020. In the NIR, this information was reported at a higher disaggregation level by category and by gas. Information on AD and their sources, EFs and key categories was reported in the NIR. The TTE noted that until 2010 the metal industry

was the largest emitter in this sector. By 2020, the mineral industry had become the largest source of emissions, followed by the chemical industry.

38. Information on the reason for using the notation keys “NE” and “IE” for some years, together with AD for other years, in the time series for the same (sub)category in the IPPU sector was not clearly reported in Algeria’s NIR. The Party reported in its NIR that this inconsistency was related to lack of data. The Party also reported in its NIR that revision of the underlying AD and their sources for the whole time series is one of its planned improvements with the highest priority in this sector. The TTE noted that data reported in a figure in the BUR did not correspond with NIR data for the same sector (categories 2.B and 2.C.1). During the technical analysis, the Party clarified that values in figures and in tables reported in the NIR are consistent, but that those reported in the BUR should be corrected and made consistent with the NIR in the next report. The TTE noted that the Party did not report on all emission elements (use of “NE”) for fluorinated gases in the IPPU sector, such as for sources of HFC emissions from stock and disposal (category 2.F.1.a) or from applications such as fire extinguishers (category 2.F.3) and others (other subcategories of 2.F.1, 2.F.2, 2.F.4, 2.F.5 and 2.F.6). The TTE also noted that the Party did not report on PFC emissions, and reported on SF₆ emissions for only a few subcategories. The Party reported in its NIR, and confirmed during the technical analysis, that this was due to lack of data.

39. For the agriculture sector, the Party clearly explained the sources of AD and EFs, including improvements made since its most recently submitted NC. Emissions from the agriculture sector increased by 74.3 per cent from 1990 to 2020 (from 11,230.85 to 19,575.24 Gg CO₂ eq). This growth was associated with an increase in livestock numbers, which led to an increase in CH₄ and N₂O emissions for AFOLU categories 3.A and 3.C. The Party noted that the growth of the agriculture sector is in line with national strategies for enhancing food security.

40. For land (category 3.B), Algeria reported annual GHG emissions and removals for 1990–2020 with clear information on sources of AD and EFs. Overall, land (category 3.B) was a net sink with removals increasing from –5,554.50 Gg CO₂ eq in 1990 to –8,933.41 Gg CO₂ eq in 2020. It was only in 1994 that land (category 3.B) was recorded as a net emitter (23,317.51 Gg CO₂ eq) owing to a massive fire incident.

41. Emissions from land (category 3.B) were only reported for forest land remaining forest land. Emissions for all other land-use categories, emissions from land-use transitions and emissions from HWP were reported as “NE” and the reason for this was not clear to the TTE. During the technical analysis, Algeria confirmed that estimating emissions from land-use transitions and other land-use types apart from forest land was hindered by insufficient data and limited knowledge related to methodologies and approaches required by the 2006 IPCC Guidelines to calculate emissions for all source (sub)categories for land (category 3.B).

42. For the waste sector, information was clearly reported on GHG emissions, methodological tier levels, sources of AD and EFs, key categories and notation keys used, as well as other information specific to the sector. The estimates of CH₄ emissions from solid waste disposal (category 5.A) improved because historical AD dating back to 1950 became available and owing to the application of the first-order decay model from the 2006 IPCC Guidelines.

43. CH₄ and N₂O emissions from anaerobic digestion at biogas facilities (category 5.B.2) were reported as “NE” owing to a lack of AD, as explained in the NIR. The reason for reporting CH₄ and N₂O emissions from waste incineration (category 5.C.1) as “NE” was not clear to the TTE, as the TTE noted that, in the previous GHG inventory reported in the 2010 NIR submitted in conjunction with the Party’s NC2, the emissions for this category were estimated. During the technical analysis, Algeria explained that this is because the data previously used to estimate emissions were lost. The TTE also noted that CH₄ and N₂O emissions from industrial wastewater (category 5.D.2) were reported as “NE” in the NIR (p.987) but as “IE” in NIR table 640. During the technical analysis, Algeria confirmed that “IE” is correct. CH₄ and N₂O emissions for this category were reported in the previous NIR (NC2); however, in the latest GHG inventory, they are included under domestic wastewater owing to the difficulties encountered in collecting the necessary data.

44. The NIR provides an update to all GHG inventories reported in the Party's previous NCs. The information reported provides an update of the Party's NC2, which addresses anthropogenic emissions and removals for 1990–2000. The update was carried out for 1990–2020 using the methodologies contained in the 2006 IPCC Guidelines and the 2019 Refinement to the 2006 IPCC Guidelines, thus generating a consistent 30-year time series. The Party reported that it recalculated emission estimates for all sectors. Detailed information is provided in the respective sections of the NIR by subcategory. A comparison of emission estimates for 2000 between the Party's NC2 (2010) and first BUR (2023) resulted in a 6.1 per cent increase in estimated emissions.

45. Algeria described in its BUR the institutional framework for the preparation of its GHG inventory. The Party reported that the National Climate Change Agency is the governmental body responsible for its GHG inventory, and the Algerian National Inventory System – under the Implementation of the National Greenhouse Gas Inventory System project and its national MRV system – has provided clear responsibilities for, among others, data management, calculation, reporting and transmission, as well as regular compilation of inventories and archiving. During the preparation of the GHG inventory, a working group on the GHG inventory was created comprising experts from different sectors. The Party is in the process of institutionalizing an MRV structure that will include an enabling policy framework to support a sustainable GHG inventory process. Algeria explained the process used for archiving data in its national inventory preparation schedule, as indicated in NIR table 34. The process includes procedures such as providing descriptions (source and sink categories, emissions, key source, completeness, uncertainty), maintaining a logbook (who did what and when), and providing references for AD, EFs and emissions. However, the Party reported in the NIR that no centralized database for data collection and management is yet in place.

46. Information on roles and responsibilities in data collection for the AFOLU, IPPU and waste sectors for the preparation of NCs and BURs on a continuous basis was not clearly reported in Algeria's BUR. During the technical analysis, the Party clarified that data collection in the energy sector is carried out by the working group in charge of GHG inventories for this sector. The data are collected from, among others, the ministry in charge of energy, the ministry in charge of digitalization and statistics, national institutions, the national statistics office and the private sector. The data-collection process for the AFOLU, IPPU and waste sectors followed the same steps as for the energy sector: collaborating with stakeholders from relevant sectors to efficiently gather accurate data, using a source-specific template, and select the appropriate EFs, and undertaking QA/QC procedures.

47. Algeria clearly reported that a key category analysis was performed for the level of and trend in emissions. As a result, 34 categories were identified as key categories for 2020, of which 21 were sources of CO₂, 8 were sources of CH₄, 4 were sources of N₂O and 1 was a source of HFCs. Among those categories, Algeria highlighted in its NIR that the following IPCC categories contributed 73.3 per cent of the total GHG emissions excluding LULUCF (level assessment): CO₂ emissions from gaseous fuel from public electricity and heat production (1.A.1.a), CO₂ emissions from gas/diesel oil and gasoline from road transportation (1.A.3.b), fugitive CH₄ emissions from natural gas (1.B.2.b) and venting and flaring (oil and natural gas) (1.B.2.c), CO₂ emissions from liquid fuels from oil and gas extraction (fuel combustion activities) (1.A.1.c.ii), CO₂ emissions from gaseous fuels from residential (1.A.4.b), CO₂ emissions from cement production (combustion of gaseous fuels in non-metallic minerals industry (1.A.2.f), and process-related emissions from non-metallic minerals (cement production) (2.A.1)).

48. The BUR provides information on QA/QC measures for all sectors. In developing the BUR, Algeria explained that QC was undertaken first by the data suppliers and second by the group of experts participating in the GHG inventory calculations, and the inventory was submitted to relevant ministries and stakeholders for QA, verification, consideration and approval. Once approved by all relevant ministries and stakeholders (technical approval), the NIR was submitted to the National Climate Committee, comprising representatives of 18 ministries, for final approval. The Party has proposed implementing a QA/QC system in a future inventory improvement plan that ensures the inventory is fit for purpose and allows

for improvement, including modification as appropriate, when changes in process occur or based on the advice of independent reviewers.

49. Algeria reported information on CO₂ fuel combustion emissions using the sectoral and reference approaches in its NIR and its first BUR. The information reported indicates that the combustion emissions estimated under the sectoral and reference approaches were 148,183.35 and 122,264.14 Gg CO₂ eq respectively in 2020. The difference between the estimates calculated using the two approaches was reported as 25,919.21 Gg CO₂ eq or 21.2 per cent. The Party identified future improvements in the information reported, such as to further investigate the country-specific NCVs and EFs used for gas and oil; to collect data on all fuels for the entire period in a disaggregated manner for the sectoral approach in order to improve the consistency of time series; to collect data from plants for activities related to oil and gas extraction, pipeline transport, refining and liquefaction; and to collect data on the non-energy use of natural gas for the production of ammonia, methanol and petrochemicals in order to exclude them from emissions estimated using the reference approach.

50. The reason for differences between both approaches in 2020 was not clearly reported in Algeria's BUR. The TTE noted that the largest differences between the reference and sectoral approaches occur for gaseous and liquid fuels, which could not be explained by the reported difference in applied NCV between both approaches. During the technical analysis, the Party clarified that there had been a misallocation of emissions from liquid and gaseous fuels and that it would be corrected in the next report. The TTE also noted that, before 2010, emissions estimated using the reference approach were higher than those estimated using the sectoral approach. The Party reported in the NIR that this was caused by a change in data sources after 2009 and by a lack of disaggregation of some data in the energy balances before 2009 for which another data source was used. The TTE further noted that, however small in amount, the difference in emissions from solid fuels in both approaches is quite large. The TTE noted that, in NIR table 60, emissions from solids were reported as "NO" for a number of years, while the sectoral approach provides emissions for the same years. During the technical analysis, the Party clarified that the difference between both approaches and the use of notation keys for solid fuels is mainly due to the AD sources used.

51. Information was clearly reported on emissions from international aviation and marine bunker fuels in the NIR. However, the TTE noted that emissions from international aviation bunker fuels were not consistently reported, using both "NE" and values for 2010–2020. The Party reported in the NIR and clarified during the technical analysis that it could not differentiate between jet kerosene used in international aviation and jet kerosene exported, based on data on its energy balance for the same period, and therefore "NE" was used. The Party noted in its NIR that providing a consistent time series and this differentiation are some of its improvements for international aviation bunker fuels with the highest priority.

52. Algeria reported information on the uncertainty assessment of its national GHG inventory. The uncertainty analysis for the GHG inventory data for 1990–2020 was based on the tier 1 approach. The Party used the Excel-based tool provided with the 2019 Refinement to the 2006 IPCC Guidelines that applies default uncertainties associated with the AD and EFs. The total uncertainty of the 2020 inventory data was calculated as 14.7 per cent while the uncertainty of the trend analysis (1990–2020) was 48.1 per cent. The TTE noted that uncertainty was highest in the energy sector, contributing 92.7 per cent of the overall uncertainty in 2020.

53. Information on uncertainty assessment in the LULUCF sector was not reported in Algeria's BUR and the Party stated that this was due to lack of detailed information on the AD. During the technical analysis, Algeria explained that there were time constraints based on the time the LULUCF data were finalized and stated that, in future reporting, IPCC methodologies with regard to country data and default factors will be adopted to estimate uncertainty for the LULUCF sector.

54. The TTE noted that the transparency of the information reported on GHG inventories could be further enhanced by addressing the areas noted in paragraphs 27, 29, 31, 38, 41, 43, 46, 50, 51 and 53 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

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

56. The information reported provides a clear and comprehensive overview of the Party's mitigation actions and their effects. In its BUR, Algeria reported information on its national context and framed its national mitigation planning and actions in the context of its NDC. The NDC outlines the mitigation objectives and key actions for several sectors, including energy, waste, forestry and communications. The Party reported information on its NDC targets and progress in achieving its targets. The NDC outlines a dual target of a 7 per cent emission reduction by 2030 compared with a reference scenario by its own means and a 22 per cent emission reduction by 2030, subject to the provision of international financial support, technology development and transfer, and capacity-building. The TTE acknowledged the information presented in this summary report as contextual without assessing the completeness and transparency of the information.

57. Algeria adopted the National Climate Plan in 2019 as an instrument to implement NDCs in 2020–2030. The National Climate Plan identified 76 priority projects and actions that have been grouped according to the national institutional arrangements, including 19 actions for energy, 17 for industry, 15 for transport, 10 for housing and cities, 7 for waste, 4 for local authorities, 3 for agriculture and rural development, and 1 for tourism, as well as 16 cross-cutting mitigation actions. Algeria reported that its mitigation approach presents a future trajectory that should enable the country to achieve its development and mitigation objectives, thereby providing a framework for future investment decisions. Further, the implemented mitigation actions contributed to estimated cumulative emission reductions of 23,140 Gg CO₂ eq for 2016–2020, with the energy sector being the main source of emission reductions. Algeria also reported that, if all activities are sustained, the anticipated minimum cumulative GHG emission reduction is expected to be 119,400 Gg CO₂ eq for 2021–2026.

58. The Party reported a summary of its sectoral mitigation actions in tabular format in accordance with paragraph 11 of the UNFCCC reporting guidelines on BURs. The Party also reported information on its mitigation actions in narrative format.

59. Consistently with paragraph 12(a) of the UNFCCC reporting guidelines on BURs, Algeria clearly reported the names of mitigation actions or groups of actions, coverage (sector and gases) and progress indicators in the BUR (sections 4.4.1–4.4.6). A clear description of mitigation actions, as well as information on quantitative goals, was provided in the BUR.

60. Algeria clearly reported information on methodologies and assumptions, the objectives of the actions, progress of implementation of actions and underlying steps taken or envisaged to achieve them for all mitigation actions in the energy, IPPU, LULUCF and waste sectors.

61. The mitigation actions in the energy sector focus mainly on improving energy efficiency, reducing fugitive emissions from oil and gas production, promoting renewable energy sources, switching fuel types in land transport (converting light-duty vehicles to liquefied petroleum gas) and improving public transport, and were reported as implemented, ongoing or planned. The two main mitigation actions reported with the highest emission reduction are the development of combined-cycle power plants and the reduction of flare gas in the oil and gas industry. The development of combined-cycle power plants is the mitigation action resulting in the largest contribution to emission reduction. Algeria completed six projects for development by 2020 and another six projects are to be completed by 2025, resulting in an anticipated cumulative emission reduction of 53,520 Gg CO₂ eq for 2021–2026. Algeria has completed seven projects and has an ongoing four projects to reduce flare gas, resulting in a cumulative emission reduction of 30,480 Gg CO₂ eq over the same time frame. These two mitigation actions account for more than two thirds of emission reductions in the energy sector. The Party reported achieved and expected co-benefits, such as creation of jobs, improved access to energy, improved air quality and health benefits.

62. The mitigation actions in the IPPU sector focus mainly on improving industrial processes in the steel, cement and chemical industries and were reported as implemented, ongoing or planned. The key mitigation actions identified are the modernization of industrial complexes and the improvement of industrial processes. For the steel industry, the Party reported mitigation actions focused on maximizing production of steel from scrap (recycling), reducing coke consumption and upgrading key machinery such as furnaces and ignition systems. For the cement industry, the Party reported clinker reduction in cement production as a mitigation action. The Party reported achieved and expected co-benefits, including pollution reduction from industries and improved competitiveness of the IPPU sector.

63. Information on results achieved, such as estimated outcomes and estimated emission reductions for mitigation actions in the cement and chemical industries and modernization projects in the steel and non-ferrous metal industries was not clearly reported in Algeria's BUR. During the technical analysis, the Party clarified that this was not reported owing to lack of capacity, tools and methodologies to monitor and report mitigation outcomes at the plant level.

64. The mitigation actions in the LULUCF sector focus mainly on conservation, rehabilitation and extension (reforestation) of forest and were reported as implemented, ongoing or planned. The Party reported a project to reforest 3,239,156 ha subject to degradation and desertification, with a progress indicator target of 324,000 ha reforested per year for 2018–2030. The estimated emission reduction achieved from this mitigation action was reported as 64 Gg CO₂ eq for 2018–2020 (21 Gg CO₂ eq/year). For forest rehabilitation, the Party reported a mitigation action to rehabilitate 216,472 ha forest area for 2020–2030. The Party also reported the adaptation co-benefits of these actions are alleviation of the vulnerability of forests and forest-dependent communities. The Party further reported anticipated co-benefits, including conservation of soil and environment and protection of infrastructure and populated areas from silting.

65. The mitigation actions for the waste sector focus mainly on rehabilitation of landfills, including recovery of CH₄, recycling of solid waste, composting of sewage sludge and green waste, and natural filtration of wastewater to reduce emissions and were reported as implemented, ongoing or planned. The rehabilitation of the Oued Smar landfill site was a large-scale national pilot project initiated in 2006 in which public authorities worked to convert the 45-ha area into an urban park. The rehabilitation entailed a leachate treatment system and biogas capture system used for power generation since 2018. The project is expected to result in an emission reduction of 21 Gg CO₂ eq/year for 2021–2030. Algeria's integrated waste management strategy looks to move towards integrated, sustainable solid waste management by 2035 as part of a transition to a green economy and a circular economy. The Party reported that implementing this strategy could have an anticipated cumulative emission reduction of 45,000 Gg CO₂ eq for 2016–2035. The wastewater mitigation actions planned include fitting wastewater treatment plants with ecological filters in 22 provinces in arid environments and conducting a pilot project to produce compost by combining sludge and green waste in Beni Mered. The Party reported the co-benefits achieved for each mitigation action, including job creation, reduced health risks, enhanced landscape and environmental protection.

66. Algeria provided information on its need for capacity-building support for establishing a national carbon market and on its intent to be involved in international market mechanisms as a Party to the Paris Agreement. Algeria reported that an international carbon market mechanism has been difficult to access to date. The Party indicated the mechanism established by Article 6, paragraph 4, under the Paris Agreement may be used to achieve, among other things, the mitigation objectives contained in the conditional part of its NDC.

67. Algeria reported information on its domestic MRV arrangements in accordance with paragraph 13 of the UNFCCC reporting guidelines on BURs. The information reported indicates that Algeria is in the process of designing and developing a domestic MRV system for mitigation actions. Algeria reported that institutionalizing the domestic MRV system for the energy sector is well advanced, with procedures in place for data collection and processing, as well as for providing training to staff. The Party further indicated the new MRV system is being piloted in the energy sector with the aim of setting up a register for mitigation actions in that sector. For other sectors, the Party reported that monitoring

information linked to project implementation exists but more time is required to integrate the information on mitigation actions into its reporting.

68. The TTE noted that the transparency of the information reported on mitigation actions could be further enhanced by addressing the areas noted in paragraph 63 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

69. As indicated in table I.3, Algeria 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.

70. Algeria reported information on constraints and gaps, and related financial, technical and capacity-building needs in accordance with paragraph 14 of the UNFCCC reporting guidelines on BURs. Its constraints and gaps include lack of a comprehensive system for collecting and centralizing data; insufficient human resources; lack of a standardized reporting format; lack of a section dedicated to reporting mitigation actions; administrative burden; lack of documentation of actions; and insufficient systematic integration of climate issues into the overall development vision of the country. Algeria reported that its financial needs are primarily due to insufficient international funding to establish regulatory frameworks, fund climate monitoring equipment, promote renewable energy, and develop waste recycling and disaster risk management projects. Technical assistance is needed to improve energy efficiency, advance clean technologies and implement early warning systems, and capacity-building needs include strengthening institutions, enhancing public awareness, and training experts in climate finance, impact assessment and adaptation strategies.

71. Information on constraints and gaps was not provided in the needs and support chapter of Algeria's BUR in a structured manner that would facilitate better understanding of the information reported and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that this was due to difficulties in identifying and tracking the constraints and gaps. The Party also provided additional constraints and gaps, including lack of ongoing data-collection efforts, lack of technical and human capacities, absence of certain types of data and information, time constraints and deadlines, the coronavirus disease 2019 pandemic, high turnover in the team involved in the preparation of the GHG inventory, and difficulties in assessing mitigation measures.

72. Algeria reported information on financial resources, technology transfer, capacity-building and technical support received in accordance with paragraph 15 of the UNFCCC reporting guidelines on BURs. In its BUR, Algeria reported that it received USD 852,000 from the GEF, which included allocation for preparing both its first BUR and its NC3, and it did not receive any further financial resources for BUR and NC preparation. USD 500,000 was allocated for preparing its NC3 and USD 352,000 for preparing its first BUR, as clarified by the Party during the technical analysis. The information reported indicates that Algeria received capacity-building and technical support from the United Nations Development Programme to facilitate its use of the 2006 IPCC Guidelines for preparing its GHG inventory and for preparing a national adaptation plan that is being planned. In addition, the Party reported support received predominantly from Belgium, France, Germany and the European Union through various climate change projects implemented from 2010 to 2023.

73. Algeria reported information on nationally determined technology needs with regard to the development and transfer of technology in accordance with paragraph 16 of the UNFCCC reporting guidelines on BURs. Its technology needs are primarily improving measurement and monitoring capabilities, advancing circular economy practices, enhancing energy efficiency, and strengthening transport and disaster preparedness systems. Key priorities include deploying climate observation networks, promoting renewable energy, optimizing industrial energy use and implementing adaptation strategies for agriculture, fisheries and urban planning in order to build climate resilience.

74. Information on whether technology needs assessment was nationally determined was not reported in Algeria's BUR and the reason for this was not clear to the TTE. During the

technical analysis, the Party clarified that it does not have a technology needs assessment and the needs reported were compiled from different institutions and sectors.

75. 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 71 and 74 above, which could facilitate a better understanding of the information reported on needs and support received.

D. Identification of capacity-building needs

76. In consultation with Algeria, the TTE identified the following needs for capacity-building that could facilitate the Party's preparation of subsequent BURs and participation in ICA:

- (a) Regarding GHG inventories:
 - (i) Enhancing technical capacity to collect all required data at a disaggregated level to estimate and report on emissions for all relevant source and sink categories in the national GHG inventory;
 - (ii) Enhancing technical capacity to understand and apply methodologies from the 2006 IPCC Guidelines to estimate and report on fluorinated-gas emissions;
 - (iii) Enhancing technical capacity for implementing higher-tier methodologies for key categories and for collecting and analysing AD required for implementing higher-tier methodologies for those key categories;
 - (iv) Enhancing institutional and technical capacity for developing and implementing the MRV system for all sectors of the national GHG inventory;
 - (v) Enhancing technical capacity to enhance time-series completeness and consistency by collecting data to fill in data gaps;
 - (vi) Enhancing institutional and technical capacity for establishing a centralized data archiving system;
 - (vii) Enhancing technical capacity of stakeholders to implement the 2006 IPCC Guidelines, their methodologies and corresponding uncertainty analysis, for all sources and sinks (including pools) in the LULUCF sector;
- (b) Regarding mitigation actions and their effects, enhancing institutional, technical and human capacities to improve the domestic MRV system for all sectors, including by applying tools and methodologies for monitoring, estimating and tracking progress of emission reductions;
- (c) Regarding needs and support:
 - (i) Enhancing technical capacity of national experts on methodologies and tools for identifying, tracking, estimating and reporting financial and technical support received;
 - (ii) Enhancing technical capacity of national experts to conduct a technology needs assessment;
 - (iii) Enhancing institutional and technical knowledge of the procedures for accessing international financial support;
- (d) Regarding cross-cutting issues, enhancing institutional and technical capacity to reinforce domestic expertise on establishing and implementing QA/QC for future reporting;
- (e) Regarding the transition towards reporting under the ETF:
 - (i) Enhancing institutional and technical capacity for QA/QC of the uncertainty analysis results and reporting;

- (ii) Enhancing institutional and technical capacity to apply higher-tier (e.g. tier 3) methodologies for key categories, including by collecting data needed for estimating emissions.

77. The TTE noted that, in addition to those identified during the technical analysis, Algeria reported several capacity-building needs covering the following areas:

- (a) Awareness-raising and information;
- (b) Strengthening regulatory, institutional and legislative frameworks;
- (c) Strengthening the GHG inventory system;
- (d) Enhancing knowledge of climate change and its impacts;
- (e) Strengthening decision-making, operational, financial and monitoring tools.

III. Conclusions

78. The TTE conducted a technical analysis of the information reported in the first BUR of Algeria 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 for preparing and submitting NCs and BURs; and domestic MRV. During the technical analysis, additional information was provided by Algeria on the GHG inventory and constraints and gaps. The TTE concludes that the information analysed is mostly transparent.

79. Algeria reported information on the institutional arrangements relevant to the preparation of its BURs. The Party has an institutional and regulatory framework that allows it to implement its national guidelines and strategies within the framework of the UNFCCC. The Directorate of Climate Change of the Ministry of Environment and Renewable Energy and the Directorate of Multilateral Affairs of the Ministry of Foreign Affairs and National Community Abroad coordinate the preparation of its NCs and BURs. The country has established an MRV system for the energy sector, but not for other sectors (AFOLU, IPPU and waste). To overcome this gap, Algeria is implementing a permanent MRV system for all sectors.

80. In its first BUR, submitted in 2023, Algeria reported information on its national GHG inventory for 1990–2020. This includes estimates of GHG emissions and removals of CO₂, CH₄, N₂O, HFCs and SF₆ for most relevant sources and sinks. The inventory was developed on the basis of the 2006 IPCC Guidelines, and the 2019 Refinement to the 2006 IPCC Guidelines where applicable. The total GHG emissions for 2020 were reported as 220,544.85 Gg CO₂ eq (excluding LULUCF) and 211,611.44 Gg CO₂ eq (including LULUCF). A total of 34 key categories were identified. Estimates of emissions from main gases for some categories, from some fluorinated gases or sources and sinks for precursor gases were not provided owing to difficulties in obtaining the necessary data, as reported by the Party in the BUR and the NIR and as clarified during the technical analysis.

81. Algeria reported information on mitigation actions and their effects in both tabular and narrative format and framed its national mitigation planning and actions in the context of its National Climate Plan, which was adopted in 2019 as an instrument for implementing its NDC. Algeria reported planned, implemented, ongoing and/or completed actions in the energy, industry, waste and LULUCF sectors. The mitigation actions in the energy sector focus on improving energy efficiency, using alternative fuels (i.e. renewable or less carbon intensive fuel), improving resource efficiency in industry, reducing and reusing waste and enhancing forestry. The Party reported on progress of implementation of its mitigation actions and the results achieved, including emission reductions and estimated outcomes. The implemented mitigation actions achieved a cumulative emission reduction of 23,140 Gg CO₂

eq between 2016 and 2020. If the mitigation actions reported are implemented, the cumulative emission reduction for 2021–2026 would be 119,400 Gg CO₂ eq. Algeria reported the co-benefits of its mitigation actions, including adaptation co-benefits (such as protecting the infrastructure and population from silting and reduced health risks), environmental benefits (such as pollution reduction), and social and economic benefits (such as job creation and improved access to energy). The Party also reported information on its intent to participate in international market mechanisms and on MRV arrangements. Estimates of emission reductions for some mitigation actions in energy and industry were not provided owing to lack of capacity to monitor and report the emission reduction estimates, as clarified by the Party during the technical analysis.

82. Algeria reported information on key constraints, gaps and related needs, including inadequate or insufficient data collection and centralization systems, insufficient human resources, lack of standardized reporting, absence of a dedicated section for mitigation actions, administrative burdens, limited documentation and insufficient integration of climate issues into the overall development vision and policy. Information was reported on the financial, technical, technology transfer and capacity-building support received, including facilitating the use of the 2006 IPCC Guidelines for preparing the GHG inventory, preparing the national adaptation plan and contributing to other climate change projects. The Party received financial support from the GEF Trust Fund amounting to USD 500,000 for the preparation of its NC3 and USD 352,000 for preparing its first BUR, as clarified during the technical analysis. The Party further reported information on support received predominantly from Belgium, France, Germany and the European Union through various climate change projects implemented from 2010 to 2023. Information on constraints and gaps was not provided in a structured manner in the needs and support chapter of the BUR owing to difficulties in identifying and tracking this information, as clarified by the Party during the technical analysis.

83. The TTE, in consultation with Algeria, identified the 14 capacity-building needs listed in chapter II.D above and needs for capacity-building that aim to facilitate the Party's 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. The Party, in consultation with the TTE, identified the two needs for capacity-building to facilitate transition to the ETF listed in paragraph 76(e) above. Algeria prioritized all the capacity-building needs.

Annex I

Extent of the information reported by Algeria 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 Algeria

<i>Decision reference</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, paragraph 41(g)	The first BUR shall cover, at a minimum, the inventory for the calendar year no more than four years prior to the date of the submission, or more recent years if information is available, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years.	Yes	Algeria submitted its first BUR in December 2023; the GHG inventories reported are for 1990–2020.
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	Algeria used a combination of the 2006 IPCC Guidelines and 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.	Yes	Algeria provided an updated GHG inventory for all years using a combination of the 2006 IPCC Guidelines and the 2019 Refinement to the 2006 IPCC Guidelines.
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;	Yes	Comparable information was reported in NIR tables 560, 561 and 566 using the 2006 IPCC Guidelines.
	(b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines.	Yes	Comparable information was reported.
Decision 2/CP.17, annex III, paragraph 7	Each non-Annex I Party is encouraged to provide a consistent time series back to the years reported in its previous NCs.	Partly	The time series reported in the BUR includes 1990–2020; however, for some sectors (e.g. energy, IPPU and AFOLU), time series were not always reported consistently, because both values and notation keys, such as “NE”, were reported in the time series for the same source or category.
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	Yes	This information was reported for 1994 and 2000.

<i>Decision reference</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
	summary information tables of inventories for previous submission years (e.g. for 1994 and 2000).		
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 chapter III (National greenhouse gas inventories) of the UNFCCC guidelines for the preparation of NCs from non-Annex I Parties, including:	Yes	
	(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 NIR table 657.
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF ₆).	Partly	Comparable information was reported in NIR table 657 for HFCs and SF ₆ separately, but not for PFCs; and comparable information for all fluorinated gases combined was reported in BUR annex 8.
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex.	NA	
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 was reported in NIR section 1.5.7.3.
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	Under all sectors, "NE" was reported for a number of categories for which the 2006 IPCC Guidelines provide methodologies.
	(b) CH ₄ ;	Partly	Under all sectors, "NE" was reported for a number of categories for which the IPCC provides methodologies.
	(c) N ₂ O.	Partly	Under all sectors, "NE" was reported for a number of categories for which the IPCC provides methodologies.

<i>Decision reference</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
Decision 17/CP.8, annex, paragraph 15	Non-Annex I Parties are encouraged, as appropriate, to provide information on anthropogenic emissions by sources of:		
	(a) HFCs;	Yes	
	(b) PFCs;	Yes	
	(c) SF ₆ .	Yes	
Decision 17/CP.8, annex, paragraph 16	Non-Annex I Parties are encouraged, as appropriate, to report on anthropogenic emissions by sources of other GHGs, such as:		
	(a) Carbon monoxide;	Yes	The Party reported only in a qualitative manner in its NIR (p.1,011).
	(b) Nitrogen oxides;	Yes	The Party reported only in a qualitative manner in its NIR (p.1,010).
	(c) NMVOCs.	Yes	The Party reported only for fugitive emissions (category 1.B.2) in the energy sector.
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as sulfur oxides, and included in the Revised 1996 IPCC Guidelines may be included at the discretion of Parties.	Yes	The Party reported on other gases, such as sulfur oxides, only in a qualitative manner in its NIR (p.1,010).
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.	Partly	Information on CO ₂ fuel combustion emissions was reported for the sectoral and the reference approaches, but information on differences between both was not clearly reported.
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	The Party used the GWP provided in the AR4.
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 AD and EFs. 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, AD and EFs used in		

<i>Decision reference</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
	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	Algeria used the 2006 IPCC Guidelines and the 2019 Refinement to the 2006 IPCC Guidelines. Tier 1 methodology was used for all sectors, except for categories 2.A.1 and 3.A.1.a, where tier 2 was applied.
	(b) Explanation of the sources of EFs;	Yes	Algeria used the 2006 IPCC Guidelines.
	(c) Explanation of the sources of AD;	Yes	
	(d) If non-Annex I Parties estimate anthropogenic emissions and removals from country-specific sources and/or sinks that are not part of the Revised 1996 IPCC Guidelines, they should explicitly describe:	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 UNFCCC guidelines for the preparation of NCs from non-Annex I Parties in reporting its national GHG inventory, taking into account the provisions established in paragraphs 14–17 of the same guidelines. 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 (e.g. “NE” and “IE”) were used for all sectors.
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;	Partly	No uncertainty analysis was provided for the LULUCF sector.
	(b) Underlying assumptions;	Partly	No uncertainty analysis was provided for the LULUCF sector.
	(c) Methodologies used, if any, for estimating these uncertainties.	Partly	No uncertainty analysis was provided for the LULUCF sector.

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 paras. 3–10 and 41(g) of the UNFCCC reporting guidelines on BURs. 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. 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 Algeria

<i>Decision reference</i>	<i>Provision of the reporting guidelines</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 11	Non-Annex I Parties should provide information, in tabular format, on actions to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol.	Yes	
Decision 2/CP.17, annex III, paragraph 12	For each mitigation action or group of mitigation actions, including, as appropriate, those listed in document FCCC/AWGLCA/2011/INF.1, developing country Parties shall provide the following information, to the extent possible:		
	(a) Name and description of the mitigation action, including information on the nature of the action, coverage (i.e. sectors and gases), quantitative goals and progress indicators;	Yes	
	(b) Information on:		
	(i) 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;	Partly	The Party did not report emission reductions for one mitigation action (energy efficiency in cement industries) in the energy sector and all mitigation actions in the IPPU sector.
	(e) Information on international market mechanisms.	Yes	
Decision 2/CP.17, annex III, paragraph 13	Parties should provide information on domestic MRV arrangements.	Yes	

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

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 Algeria

<i>Decision reference</i>	<i>Provision of the reporting requirements</i>	<i>Assessment of whether the information was reported</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on: (a) Constraints and gaps; (b) Related financial, technical and capacity-building needs.	Yes Yes	
Decision 2/CP.17, annex III, paragraph 15	Non-Annex I Parties should provide: (a) Information on financial resources, technology transfer and capacity-building received from the GEF, Parties included in Annex II to the Convention and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current BUR; (b) Information on technical support received from the GEF, Parties included in Annex II to the Convention and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current BUR.	Yes 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; (b) Technology support received.	Partly Yes	No information on the process of determining technology needs was provided.

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 paras. 14–16 of the UNFCCC reporting guidelines on BURs.

Annex II

Reference documents

A. Reports of the Intergovernmental Panel on Climate Change

IPCC. 1997. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. J.L. Houghton, L.G. 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 Algeria. Available at <https://unfccc.int/BURs>.

NC1, NC2 and NC3 of Algeria. 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:

Algeria. 2024. *Document submitted during the technical analysis process: Common Reporting Tables (CRT), activity data, and supporting Excel files*.