



United Nations

FCCC/SBI/ICA/2020/TASR.1/TJK



Framework Convention on
Climate Change

Distr.: General
22 October 2020

English only

Technical analysis of the first biennial update report of Tajikistan submitted on 18 July 2019

Summary report by the team of technical experts


Summary

According to decision 2/CP.17, paragraph 41(a), Parties not included in Annex I to the Convention, consistently with their capabilities and the level of support provided for reporting, were to submit their first biennial update report by December 2014. 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 Tajikistan, conducted by a team of technical experts in accordance with the modalities and procedures contained in the annex to decision 20/CP.19.

GE.20-13979(E)



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Abbreviations and acronyms

AD	activity data
BUR	biennial update report
CGE	Consultative Group of Experts
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
EF	emission factor
FAO	Food and Agriculture Organization of the United Nations
F-gas	fluorinated gas
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
ICA	international consultation and analysis
IPCC	Intergovernmental Panel on Climate Change
IPCC good practice guidance	<i>Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories</i>
IPCC good practice guidance for LULUCF	<i>Good Practice Guidance for Land Use, Land-Use Change and Forestry</i>
IPPU	industrial processes and product use
LULUCF	land use, land-use change and forestry
MRV	measurement, reporting and verification
NA	not applicable
NC	national communication
NMVOC	non-methane volatile organic compound
non-Annex I Party	Party not included in Annex I to the Convention
NO _x	nitrogen oxides
N ₂ O	nitrous oxide
PFC	perfluorocarbon
Revised 1996 IPCC Guidelines	<i>Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories</i>
SF ₆	sulfur hexafluoride
SO _x	sulfur oxides
TTE	team of technical experts
UNFCCC guidelines for the preparation of NCs from non-Annex I Parties	“Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention”
UNFCCC reporting guidelines on BURs	“UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention”
2006 IPCC Guidelines	<i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>

I. Introduction and process overview

A. Introduction

1. The process of ICA consists of two steps: a technical analysis of the submitted BUR and a facilitative sharing of views under the Subsidiary Body for Implementation, resulting in a summary report and a record, respectively.
2. According to decision 2/CP.17, paragraph 41(a), non-Annex I Parties, consistently with their capabilities and the level of support provided for reporting, were to submit their first BUR by December 2014. The least developed countries and small island developing States may submit BURs at their discretion.
3. Further, according to paragraph 58(a) of the same decision, the first round of ICA is to commence for non-Annex I Parties within six months of the submission of the Parties' first BUR. The frequency of developing country Parties' participation in subsequent rounds of ICA, depending on their respective capabilities and national circumstances, and the special flexibility for small island developing States and the least developed country Parties, will be determined by the frequency of the submission of BURs.
4. This summary report presents the results of the technical analysis of the first BUR of Tajikistan, 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, Tajikistan submitted its first BUR on 18 July 2019 as a stand-alone update report.
6. During the technical analysis, the Party clarified that lack of funding was the main reason for submitting its first BUR after the mandated submission timeline outlined in paragraph 2 above.
7. A desk analysis of Tajikistan's BUR was conducted from 9 to 13 March 2020¹ and was undertaken by the following TTE, drawn from the UNFCCC roster of experts on the basis of the criteria defined in decision 20/CP.19, annex, paragraphs 2–6: Diana Barba (Colombia), Menouer Boughedaoui (former member of the CGE from Algeria), Xiang Gao (China), Patricia Grobбен (former member of the CGE from Belgium), Lawrence Ibhafidon (Nigeria), Medeia Inashvili (Georgia), Gervais Ludovic Itsoua Madzous (member of the CGE from the Congo), Sohyang Lee (Republic of Korea), Nicolo Macaluso (Canada), Rodrigue Abourou Otego (former member of the CGE from Gabon) and Pascale Vizey (France). Mr. Gao and Ms. Grobбен were the co-leads. The technical analysis was coordinated by Gopal Joshi, Luca Birigazzi and Hajar Benmazhar (secretariat).
8. During the technical analysis, in addition to the written exchange, through the secretariat, to provide technical clarifications on the information reported in the BUR, the TTE and Tajikistan engaged in consultation² on the identification of capacity-building needs for the preparation of BURs and participation in the ICA process. Following the technical analysis of the Party's first BUR, the TTE prepared and shared a draft summary report with Tajikistan on 5 June 2020 for its review and comment. The Party, in turn, provided its feedback on the draft summary report on 29 August 2020.
9. The TTE responded to and incorporated Tajikistan's comments referred to in paragraph 8 above and finalized the summary report in consultation with the Party on 7 October 2020.

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

² The consultation was conducted via teleconferencing.

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 Tajikistan'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 partially 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 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 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.

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. Tajikistan reported in its first BUR the following information on its national circumstances: a description of national development priorities, objectives and circumstances, including information on features of geography, climate, population, forestry, agriculture, water resources, industry, transport, economy and politics 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.

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

20. The Party reported in its first BUR information on its existing 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 and the involvement and roles of other institutions and experts. The Committee for Environmental Protection is the entity with overall responsibility for formulating policies and coordinating activities on environmental protection and climate change issues with other government agencies. The Agency for Hydrometeorology of the Committee for Environmental Protection is the UNFCCC national focal point and leads the process of preparing NCs and BURs in coordination with key ministries and agencies. The Ministry of Energy and Water Resources is in charge of developing GHG inventories for the energy sector, while the Academy of Science estimates the impact of emission reduction methods, among other things. The Statistics Agency provides official data records for the preparation of GHG inventories. It collects, processes, analyses and distributes statistical data related to the economy, demography, social life and the environment.

21. Information on mechanisms for information and data exchange, and provisions for public consultation and other forms of stakeholder engagement was not clearly reported in Tajikistan's BUR. During the technical analysis, the Party clarified that these mechanisms and provisions are determined by established national procedures.

22. The TTE noted that the transparency of the information reported on institutional arrangements could be enhanced by addressing the areas noted in paragraph 21 above, which could facilitate a better understanding of the information reported on institutional arrangements.

23. Tajikistan reported in its first BUR information on its domestic MRV arrangements. The description covers key aspects of the institutional arrangements, including the roles and mandates of the various government agencies and institutions involved in MRV. The MRV arrangements are designed at the national level and cover two main areas: NC and BUR preparation and GHG inventory preparation. The TTE noted that Tajikistan did not establish specific MRV arrangements in accordance with the reporting obligations under the Convention and the Paris Agreement, but that it was planning to create an MRV system more in line with these requirements by building on existing systems, processes and infrastructure and drawing on international capacity-building support.

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

24. As indicated in table I.1, Tajikistan reported information on its GHG inventory in its BUR partially 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.

25. Tajikistan submitted its first BUR in 2019 and the GHG inventory reported is for 2004–2014. The latest year covered in the GHG inventory is more than four years prior to the date of submission of the Party's BUR. During the technical analysis, Tajikistan clarified

that the BUR was completed in 2018 but that the internal approval process for its submission took longer than expected.

26. GHG emissions and removals for the BUR covering the 2004–2014 inventories were estimated using tier 1 and tier 2 methodologies from the 2006 IPCC Guidelines. Tier 2 methodology from the 2006 IPCC Guidelines was used for the solid waste disposal category in the waste sector, while tier 1 methodology from the 2006 IPCC Guidelines was used for all other categories and subcategories in all sectors. The TTE noted that Tajikistan collected and archived updated AD to provide an updated GHG inventory for all sectors for 2004–2010 using the 2006 IPCC Guidelines and the IPCC inventory software (version 2.54). The TTE commends the Party for using the 2006 IPCC Guidelines.

27. Information on EFs used and their sources was clearly reported in the BUR. Tajikistan also reported on the sources of national AD, which are obtained from the statistical databases of government institutes, companies and FAO for all categories and subcategories in all sectors.

28. Tajikistan did not report AD in the BUR for any sector and the reason for this was not clear to the TTE. During the technical analysis, Tajikistan clarified that the IPCC inventory software used for preparing the GHG inventory contains all the AD, which are publicly available upon request. The Party explained that all AD will be included in its next BUR.

29. Information on Tajikistan’s total GHG emissions by gas for 2014 is outlined in table 1 in Gg CO₂ eq. It shows total GHG emissions of 7,554.42 Gg CO₂ eq (including LULUCF) and 9,131.01 Gg CO₂ eq (excluding LULUCF), representing decreases of 6.8 and 4.6 per cent, respectively, compared with the 2004 level.

Table 1
Greenhouse gas emissions by gas of Tajikistan for 2014

<i>Gas</i>	<i>GHG emissions (Gg CO₂ eq) including LULUCF</i>	<i>% change 2004–2014</i>	<i>GHG emissions (Gg CO₂ eq) excluding LULUCF</i>	<i>% change 2004–2014</i>
CO ₂	1 755.50	–46.1	3 332.09	–29.9
CH ₄	4 834.99	48.1	4 834.99	48.1
N ₂ O	604.03	23.0	604.03	23.0
HFCs	NA	NA	NA	NA
PFCs	359.90	–66.1	359.90	–66.1
SF ₆	NA	NA	NA	NA
Other	NA	NA	NA	NA
Total	7 554.42	–6.8	9 131.01	–4.6

30. Information on other emissions, including CO, NMVOCs, NO_x and SO_x, was not reported in Tajikistan’s BUR and the reason for this was not clear to the TTE. During the technical analysis, Tajikistan clarified that it had difficulties in finding an appropriate tool for estimating emissions of CO, NMVOCs, NO_x and SO_x since the IPCC inventory software does not have a corresponding function for this. The Party explained that this information will be included in its next BUR.

31. Tajikistan did not apply notation keys in tables where numerical data were not provided. The TTE noted that, in several cases, the use of “0” was not clear, for example for emissions of CO, NO_x, NMVOCs, SO_x, HFCs and SF₆. During the technical analysis, the Party clarified that it should have reported these emissions as not estimated but had difficulty in entering notation keys in the IPCC inventory software when preparing its GHG inventory, and explained that notation keys will be used accurately in the next submission.

32. Tajikistan partially reported comparable information addressing the tables included in annex 3.A.2 to the IPCC good practice guidance for LULUCF and the sectoral reporting tables annexed to the Revised 1996 IPCC Guidelines. During the technical analysis, Tajikistan clarified that sectoral reporting tables containing all background data will be included in the next submission.

33. The shares of emissions that different sectors contributed to the total GHG emissions excluding LULUCF, as reported by the Party, in 2014 are reflected in table 2.

Table 2

Shares of greenhouse gas emissions by sector of Tajikistan for 2014

<i>Sector</i>	<i>GHG emissions (Gg CO₂ eq)</i>	<i>% share^a</i>	<i>% change 2004–2014</i>
Energy	2 543.60	27.9	–37.0
IPPU	1 158.65	12.7	–34.9
Agriculture	4 556.15	49.9	43.5
LULUCF	–1 576.60	NA	8.0
Waste	872.62	9.5	52.1

^a Share of total emissions without LULUCF.

34. Tajikistan reported information on its use of GWP values consistent with those provided in the IPCC Second Assessment Report based on the effects over a 100-year time-horizon of GHGs.

35. For the energy sector, emissions from fuel combustion activities and fugitive emissions from fuels were estimated and reported, with CO₂ reported as the most significant gas. To estimate emissions for this sector, Tajikistan used the tier 1 default EFs from the 2006 IPCC Guidelines and national AD from the national Statistics Agency, the Customs Committee and companies.

36. For the IPPU sector, Tajikistan reported emissions for the categories mineral industry, chemical industry and metal industry. The reported emissions include CO₂ and two PFCs, namely carbon tetrafluoride and ethane. With respect to F-gases, which have a very high GWP value (140–23,900), PFC emissions were reported for the category mineral industry. The Party estimated emissions for the IPPU sector using the tier 1 default EFs from the 2006 IPCC Guidelines and national AD from the national Statistics Agency, the Customs Committee and companies.

37. Information on HFC and SF₆ emissions was not reported in Tajikistan's BUR and the reason for this was not clear to the TTE. The Party clarified that it had difficulties in estimating these emissions using the IPCC inventory software but explained that it will include this information in subsequent BURs provided that national capacity is enhanced in this respect.

38. For the agriculture sector, the Party reported GHG emissions from enteric fermentation, manure management and urea application, and direct and indirect N₂O emissions from managed soils and rice cultivation. The main GHGs and their sources in the agriculture sector are CH₄ from manure management, enteric fermentation and rice cultivation, and direct N₂O from managed soils. Tajikistan reported that the contribution of the agriculture sector to the total GHG emissions ranged from 20 to 50 per cent depending on the year. Tajikistan estimated emissions for this sector using the tier 1 default EFs from the 2006 IPCC Guidelines and national AD from the national Statistics Agency, the Committee on Land Management and FAO.

39. For the LULUCF sector, Tajikistan reported GHG emissions and removals for forest land remaining forest land and forest land converted to grassland. The Party estimated emissions for this sector using the tier 1 default EFs from the 2006 IPCC Guidelines and national AD from the national Statistics Agency, the Committee on Land Management and FAO.

40. Information on emissions and removals for other land categories was not reported in the BUR and the reason for this was not clear to the TTE. During the technical analysis, Tajikistan clarified that it had difficulties in obtaining AD for various land-use categories, in particular forest fires and deforestation, and that some land-use categories (such as wetlands) are not applicable to it. The Party acknowledged that these emissions should have been reported as not estimated and explained that this information will be included in its next BUR.

41. For the waste sector, the Party reported emissions of CH₄ and N₂O from solid waste disposal at landfills and disposal sites and wastewater treatment, and discharge from centralized sewage treatment plants. For solid waste disposal, the tier 2 methodology from the 2006 IPCC Guidelines was applied. Tajikistan used national AD from the national Statistics Agency and companies.
42. The BUR provides an update to some of the GHG inventories reported in previous NCs. The information reported provides an update of Tajikistan's NC3, which addressed anthropogenic emissions and removals for 1990–2010. The update was carried out for 2004–2010 using the methodologies contained in the 2006 IPCC Guidelines, thus generating a consistent 11-year time series (2004–2014). The previous national inventory was prepared using the Revised 1996 IPPC Guidelines, the 2006 IPCC Guidelines and the IPCC good practice guidance for LULUCF.
43. Information on why the update referred to in paragraph 42 above was not carried out for 1990–2003 was not reported in the Party's BUR and the reason for this was not clear to the TTE. During the technical analysis, Tajikistan identified that there was a time-series inconsistency between the NC3 and the BUR.
44. Tajikistan described in its BUR the institutional framework for the preparation of its GHG inventory. The Party reported that the Agency for Hydrometeorology of the Committee for Environmental Protection is the governmental body responsible for preparing the GHG inventory, BURs and NCs and communicating with the secretariat and other support agencies. The BUR was prepared with the support of the United Nations Development Programme, which assisted Tajikistan in designing its GHG inventory system.
45. Tajikistan clearly reported that a key category analysis was performed for the level of emissions and the trend in emissions in accordance with the 2006 IPCC Guidelines, with 14 key categories identified for the level of and trend in emissions, respectively. The key categories and main gases for the level of emissions in 2014 (without LULUCF) were identified as categories 3.A.1 enteric fermentation (CH₄), 4.A solid waste disposal (CH₄) and 1.A.4 other sectors (solid fuel) (CO₂). For the trend in emissions, the key categories and main gases were identified as categories 1.A.4 other sectors (gas) (CO₂), 3.A.1 enteric fermentation (CH₄) and 1.A.4 other sectors (solid fuels) (CO₂).
46. Tajikistan reported information on CO₂ fuel combustion using only the sectoral approach.
47. Information on CO₂ fuel combustion using the reference approach was not included in the BUR. During the technical analysis, Tajikistan clarified that, when the GHG inventory was prepared, the reference approach was not applied because the Party did not have an energy balance. However, the national Statistics Agency is currently developing an energy balance, which will enable the Party to estimate emissions under the reference approach and evaluate the differences between the estimates under the sectoral and reference approaches for the next submission.
48. Information was clearly reported on international aviation and marine bunker fuels as memo items in the summary report table in annex 2 to the BUR.
49. Tajikistan gauged the uncertainty assessment (level) of its national GHG inventory as moderate (10–50 per cent) on the basis of a qualitative approach developed by national experts. The results obtained, as reported in the BUR, reveal that the level of uncertainty for emissions was deemed low for some sectors, such as IPPU, and high for the agriculture, LULUCF and waste sectors.
50. Information on the level of uncertainty associated with inventory data, underlying assumptions and methodologies used was not clearly reported in the BUR. During the technical analysis, Tajikistan clarified that it had difficulties in obtaining all of the AD and tools necessary for calculating the uncertainty values.
51. The TTE noted that the transparency of the information reported on GHG inventories could be enhanced by addressing the areas noted in paragraphs 28, 30, 31, 32, 37, 40, 43, 47 and 50 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

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

53. The information reported provides a comprehensive overview of the Party's mitigation actions and their effects. In its BUR, Tajikistan reported information on its national context, noting that its national mitigation planning and actions have been mainstreamed in and integrated into national laws and development plans. In addition, Tajikistan stated that the aim of its nationally determined contribution, submitted in October 2015, is to reduce emissions to 80–90 per cent of the 1990 level by 2030, which equates to 1.7–2.2 t CO₂ eq per capita. The Party also reported that, with substantial international funding and technology transfer support, it could feasibly reduce its emissions to 65–75 per cent of the 1990 level by 2030, which amounts to 1.2–1.7 t CO₂ eq per capita.

54. Tajikistan reported a summary of its mitigation actions in tabular format in accordance with decision 2/CP.17, annex III, paragraph 11. The summary includes information on the 18 mitigation actions reported in table 29 of the BUR, consisting of 8 actions related to agriculture, 3 to energy, 2 to housing and communal services, 2 to waste, 2 to transport and 1 to industry.

55. Consistently with decision 2/CP.17, annex III, paragraph 12(a), Tajikistan reported the names of mitigation actions in addition to their nature and coverage (sector and gases).

56. The descriptions of some mitigation actions were not clear enough for the TTE to understand how those actions contributed to reducing GHG emissions. For example, the descriptions of the actions related to agriculture and waste did not clearly highlight the mitigation component or potential of those actions. In addition, information on progress indicators and quantitative goals was not reported in Tajikistan's BUR and the reason for this was not clear to the TTE. During the technical analysis, Tajikistan clarified that it had difficulties in describing the mitigation actions, identifying progress indicators and estimating quantitative mitigation goals.

57. Tajikistan clearly reported information on the progress of implementation of the 18 mitigation actions being planned and implemented in the areas of agriculture, energy, transport, industry, waste, and housing and communal services. The programmes and strategies reported have different implementation periods, ending in 2020, 2025 or 2030.

58. In the energy sector, two mitigation actions are being implemented, the first of which is focused on promoting the use of renewable energy, such as solar power, hydropower, wind power and biogas, in economic activities by issuing preferential loans for the design, production and use of renewable energy facilities, and establishing training and service centres. The other mitigation action being implemented is specifically geared towards building solar power plants and small hydropower plants at irrigation facilities and waterways (for which feasibility studies have been completed) by attracting private investment for 2016–2020. An additional mitigation action in this sector is pending approval by the Government.

59. In the transport subsector, the mitigation action being implemented focuses on reducing air pollutants from stationary sources at transport companies, constructing efficient gas refuelling stations, processing and recycling used motor oils and lubricants and establishing protective forest lines along roads. An additional mitigation action in this subsector is pending approval by the Government.

60. Two mitigation actions are being implemented in the housing and communal services subsector. They are focused on improving the spatial planning system, ensuring compliance with land-use and development rules, allocating land for greening buildings under public utilities, and developing and implementing cross-sectoral programmes to increase the energy efficiency of buildings.

61. There is one mitigation action in the IPPU sector, which is being implemented. It is focused on increasing the share of industrial enterprises involved in using innovative

technologies to 5–8 per cent of the total number of industrial enterprises, as well as increasing the share of such products in the total industrial output, by 2020.

62. Mitigation actions being implemented in the agriculture sector are mainly focused on developing climate-friendly agricultural technologies; developing highly productive breeding stock and using land and pastures efficiently; improving pasture conditions; planting trees on an area of more than 10,000 ha; creating forest-sharing community groups; ensuring the sustainability of seed-based crops and livestock breeding; developing gardening and viticulture techniques; and restoring irrigation infrastructure. Of the eight mitigation actions in the agriculture sector, six are being implemented and two are in the process of being drafted and approved by the Government.

63. In the waste sector, the two mitigation actions reported focus on rehabilitating a uranium tailing dump, cut-off grade ores and mining water and on improving industrial waste management. Both of these mitigation actions are being implemented.

64. Information on methodologies and assumptions, the objectives of the actions and steps taken or envisaged to achieve those actions, the progress of implementation of the underlying steps taken or envisaged, and results achieved was either missing or not clearly reported in the BUR in line with decision 2/CP.17, annex III, paragraph 12(b–d), for all mitigation actions in all sectors. For example, table 29 of the BUR has a column entitled “Methods and assumptions” but it does not contain any information. During the technical analysis, Tajikistan clarified that it had difficulties in developing and reporting methodologies for estimating the impact of mitigation actions on GHG emissions, including the mitigation component of adaptation actions, as well as in reporting the above information.

65. Tajikistan did not provide information on its involvement in international market mechanisms. During the technical analysis, Tajikistan clarified that, although there is a monitoring structure for clean development mechanism projects, which falls under the responsibility of the Ministry of Industry and New Technologies, no clean development mechanism projects are currently being implemented in the country.

66. Tajikistan reported information on its domestic MRV arrangements in accordance with decision 2/CP.17, annex III, paragraph 13. The information reported indicates that Tajikistan is currently developing a domestic MRV system for mitigation actions, which will draw on existing national systems and capacities and international best practices. Tajikistan also reported in its BUR that it needs to improve its capacity to coordinate activities related to the development of NCs and BURs and to define the responsibilities of the designated authority in terms of developing national GHG inventories, monitoring and reporting on mitigation policies, activities and projects and addressing methodological issues.

67. The Party did not clearly report on the MRV systems or arrangements in place for monitoring mitigation actions in table 29 of the BUR. During the technical analysis, Tajikistan clarified that, since it is still developing its domestic MRV system, it had difficulties in reporting this information.

68. The TTE noted that the transparency of the information reported on mitigation actions could be enhanced by addressing the areas noted in paragraphs 56, 64, 65 and 67 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, Tajikistan reported in its BUR, partially 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. Tajikistan reported some information on constraints and gaps, and related financial, technical and capacity-building needs in accordance with decision 2/CP.17, annex III, paragraph 14. The Party reported that its financial, technical and capacity-building needs are primarily in the areas of strengthening and sustaining the GHG inventory process (e.g. by using the 2006 IPCC Guidelines and the IPCC inventory software, enhancing quality assurance/quality control procedures and developing an energy balance, on a continuous basis) and stimulating infrastructure investment in certain areas (such as manufacturing and

water conservation and supply). The Party also reported the financial, technical and capacity-building needs of its national experts and institutions with respect to the preparation of NCs, BURs and GHG inventories.

71. However, information on constraints and gaps with respect to the preparation of NCs, BURs and GHG inventories on a continuous basis was not clearly reported in Tajikistan's BUR. Furthermore, information on constraints and gaps and related financial, technical and capacity-building needs for climate change activities such as developing, implementing and monitoring mitigation actions was not reported in the BUR. During the technical analysis, the Party clarified that it has only recently begun to establish an MRV system for reporting purposes under the Convention and is thus limited in its ability to identify and assess such constraints, gaps and needs.

72. Tajikistan reported information on financial resources, technology transfer, capacity-building and technical support received in accordance with decision 2/CP.17, annex III, paragraph 15. In its BUR, the Party reported that it received a total of USD 211 million for both implemented and approved projects from various sources. This includes USD 23.72 million from the Global Environment Facility and other sources (Strategic Climate Fund, Government of the United Kingdom of Great Britain and Northern Ireland, United Nations Development Programme and World Bank), which included allocation for preparing both its first BUR and its NC4 (USD 0.85 million), and USD 33 million from the Green Climate Fund. The information reported indicates that Tajikistan received capacity-building and technical support from the United Nations Development Programme to facilitate the preparation of its first BUR and NC4.

73. The Party reported 20 projects that received financial, technology transfer, capacity-building or technical assistance (see table 30 of the BUR). However, the TTE struggled to establish a clear link between these projects and the forms of support provided. In particular, information on technology transfer and technical support received was not clearly reported. During the technical analysis, Tajikistan clarified that, of the projects reported as receiving support, projects 2, 3, 4, 6, 8, 12, 14, 17, 18 and 19 had a technology transfer component, and projects 1, 2, 5, 11, 15 and 16 had a technical support component. The Party also clarified that, of the total support received, 26.1 per cent was for adaptation, 39.7 per cent was for mitigation and 34.2 per cent was for projects with both adaptation and mitigation components.

74. Tajikistan reported information on nationally determined technology needs with regard to the development and transfer of technology partially in accordance with decision 2/CP.17, annex III, paragraph 16. In its BUR, the Party reported technology transfer needs for infrastructure investment in a number of areas, such as water supply and sanitation, manufacturing and renewable energy.

75. Tajikistan did not clearly report information on its past, existing and future processes for identifying, developing and transferring technologies for mitigation and adaptation and the reason for this was not clear to the TTE. During the technical analysis, the Party clarified that it needs to establish national processes for identifying technology needs in order to address climate change issues and report them in the BUR.

76. The TTE noted that the transparency of the information reported on needs and support received could be enhanced by addressing the areas noted in paragraphs 71, 73 and 75 above, which could facilitate a better understanding of the information reported on needs and support received.

5. Any other information

77. Tajikistan reported some information on adaptation action (e.g. approving in October 2019 its national climate change adaptation strategy for up to 2030), gender and climate (e.g. addressing gender issues in the context of its climate change adaptation project) and awareness-raising activities (e.g. raising awareness of the ecological status of land and water resources).

D. Identification of capacity-building needs

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

- (a) Strengthening the national capacity to undertake the following actions relevant to preparing the GHG inventory:
 - (i) Collecting and archiving AD for all types of land use and land-use change in accordance with the 2006 IPCC Guidelines;
 - (ii) Collecting and archiving AD for F-gases (HFCs and SF₆) in accordance with the 2006 IPCC Guidelines;
 - (iii) Estimating and reporting SO_x emissions;
 - (iv) Estimating and reporting CO, NO_x and NMVOC emissions;
 - (v) Performing uncertainty assessment in accordance with the 2006 IPCC Guidelines;
- (b) Enhancing the national capacity to undertake the following actions relevant to assessing and reporting information on mitigation actions in the BUR:
 - (i) Estimating potential quantitative mitigation goals and identifying progress indicators for each mitigation action;
 - (ii) Estimating the results of individual mitigation actions;
 - (iii) Assessing the steps taken or envisaged to achieve individual mitigation actions;
 - (iv) Monitoring and reporting the progress of the underlying steps taken or envisaged for individual mitigation actions;
 - (v) Developing methodologies for estimating the quantified impacts of individual mitigation actions;
 - (vi) Reporting assumptions for individual mitigation actions;
 - (vii) Reporting on the contribution of mitigation actions to GHG emission reductions;
 - (viii) Reporting on the mitigation potential of adaptation actions;
 - (ix) Establishing an MRV system or methodology for individual actions;
- (c) Enhancing the national capacity to establish national processes for identifying technology development and transfer needs in order to address climate change issues and report on technology transfer support received;
- (d) Enhancing the national capacity to establish an MRV system in line with reporting obligations under the Convention and the Paris Agreement.

79. The TTE noted that, in addition to those identified during the technical analysis, Tajikistan reported the following capacity-building needs in its BUR:

- (a) In relation to ensuring the sustainability of the GHG inventory process, and verifying it by means of quality assurance/quality control checks:
 - (i) Building the capacity of national experts to use the 2006 IPCC Guidelines and IPCC inventory software;
 - (ii) Developing its energy balance and improving data collection and management for the LULUCF, energy and waste sectors and road transport subsector;
- (b) In relation to reducing GHG emissions:
 - (i) Enhancing the national capacity to identify key sources and sinks of GHGs;
 - (ii) Training experts on mitigation potential and policies and measures;
- (c) In relation to developing projections of GHG emissions:

- (i) Training experts on applying extrapolation techniques for estimating GHG emissions;
- (ii) Enhancing the national capacity to develop GHG projections.

III. Conclusions

80. The TTE conducted a technical analysis of the information reported in the first BUR of Tajikistan in accordance with the UNFCCC reporting guidelines on BURs and concludes that the information reported is partially 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 removal by sinks of all GHGs not controlled by the Montreal Protocol; mitigation actions and their effects; 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; domestic MRV; and other information relevant to the achievement of the objective of the Convention, such as adaptation actions. The TTE concluded that the information analysed is partially transparent.

81. Tajikistan reported information on the institutional arrangements relevant to the preparation of its BURs. The Committee for Environmental Protection is the authority in charge of climate change issues, while the Agency for Hydrometeorology of the Committee for Environmental Protection is the UNFCCC national focal point that leads the process of preparing BURs.

82. In its first BUR, submitted in 2019, Tajikistan reported information on its national GHG inventory for 2004–2014. This included GHG emissions and removals of CO₂, CH₄ and N₂O for all relevant sources and sinks. The inventory was developed on the basis of tier 1 and tier 2 methodologies from the 2006 IPCC Guidelines. Tier 2 EFs from the 2006 IPCC Guidelines were used to estimate emissions from solid waste disposal in the waste sector, while tier 1 EFs from the 2006 IPCC Guidelines were applied for other categories in all sectors. The total GHG emissions for 2014 were reported as 9,131.01 Gg CO₂ eq (excluding LULUCF) and 7,554.42 Gg CO₂ eq (including LULUCF). A key category analysis was carried out for the level of and trend in emissions, with 14 key categories identified for the level of and trend in emissions, respectively. The key categories and main gases were identified as categories 3.A.1 enteric fermentation (CH₄), 4.A solid waste disposal (CH₄) and 1.A.4 other sectors (solid fuel) (CO₂) for the level of emissions in 2014, and as categories 1.A.4 other sectors (gas) (CO₂), 3.A.1 enteric fermentation (CH₄) and 1.A.4 other sectors (solid fuel) (CO₂) for the trend in emissions. Estimates of PFCs were reported but estimates of HFCs and SF₆ were not provided owing to difficulties in obtaining the necessary data, as clarified by the Party during the technical analysis. Tajikistan also clarified that it had difficulties in estimating emissions and removals from the LULUCF sector.

83. Tajikistan reported information on mitigation actions and their effects in tabular format, including descriptions of mitigation actions, coverage (gases), progress of implementation, implementation time frame and the status of the actions. Tajikistan framed its mitigation actions in the context of its environmental laws and plans and its nationally determined contribution, which was submitted in October 2015. The Party reported 18 mitigation actions in the areas of agriculture, energy, housing and communal services, industry and transport. Most of these mitigation actions are currently being implemented, with the exception of some measures that are pending approval by the Government. Most reported actions in the agriculture sector relate to adaptation and are accompanied by potential mitigation impacts. Tajikistan also reported that it is currently developing its domestic MRV arrangements and systems. However, it did not report information on quantitative goals, progress indicators, methodologies and assumptions, the objectives of the actions and steps taken or envisaged, the progress in implementing these steps or the results achieved for any of its mitigation actions, or on its participation in international market mechanisms. The Party clarified that this was due to the need to strengthen human and technical capacities and enhance existing institutional arrangements for meeting its reporting requirements under the Convention.

84. Tajikistan reported information on technical, financial, technology transfer and capacity-building needs, in particular the technical and capacity-building needs of national experts with respect to GHG inventory preparation; financial needs with respect to the development of the national energy balance; needs with respect to strengthening the capacity of the national Statistics Agency to collect the data required for the GHG inventory; and technology transfer needs for infrastructure investment in areas such as renewable energy and water supply. Information was reported on the financial, technical, technology transfer and capacity-building support received, including for small-scale renewable energy projects, reforestation, capacity-building of the Agency for Hydrometeorology, and improvement of climate risk management. Tajikistan also reported that it received financial support of approximately USD 211 million from various sources, including the Global Environment Facility and the Green Climate Fund. Tajikistan clarified during the technical analysis that it does not have the capacity to undertake technology needs assessments for climate action.

85. The TTE, in consultation with Tajikistan identified the 16 capacity-building needs listed in chapter II.D above that aim to facilitate reporting in accordance with the UNFCCC reporting guidelines on BURs and participation in ICA in accordance with the ICA modalities and guidelines, taking into account Article 4, paragraph 3, of the Convention. Tajikistan identified the following as priority capacity-building needs:

- (a) Strengthening the national capacity to undertake the following actions relevant to preparing the GHG inventory:
 - (i) Collecting and archiving AD for all types of land use and land-use change in accordance with the 2006 IPCC Guidelines;
 - (ii) Collecting and archiving AD for F-gases (HFCs and SF₆) in accordance with the 2006 IPCC Guidelines;
 - (iii) Estimating and reporting SO_x emissions;
 - (iv) Estimating and reporting CO, NO_x and NMVOC emissions;
 - (v) Performing uncertainty assessment in accordance with the 2006 IPCC Guidelines;
- (b) Enhancing the national capacity to undertake the following actions relevant to assessing and reporting information on mitigation actions in the BUR:
 - (i) Assessing the steps taken or envisaged to achieve individual mitigation actions;
 - (ii) Developing methodologies for estimating the quantified impacts of individual mitigation actions;
 - (iii) Reporting on the contribution of mitigation actions to GHG emission reductions;
- (c) Enhancing the national capacity to establish national processes for identifying technology development and transfer needs in order to address climate change issues and report on technology transfer support received.

Annex I

Extent of the information reported by Tajikistan 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 Tajikistan

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no/NA</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, paragraph 41(g)	The first BUR shall cover, at a minimum, the inventory for the calendar year no more than four years prior to the date of the submission, or more recent years if information is available, and subsequent BURs shall cover a calendar year that does not precede the submission date by more than four years.	No	Tajikistan submitted its first BUR in July 2019; the GHG inventories reported are for 2004–2014.
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	Tajikistan used the 2006 IPCC Guidelines.
Decision 2/CP.17, annex III, paragraph 5	The updates of the section on national inventories of anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol should contain updated data on activity levels based on the best information available using the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF; any change to the EF may be made in the subsequent full NC.	No	Tajikistan reported on the sources of AD, but did not provide any actual AD.
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; (b) The sectoral report tables annexed to the Revised 1996 IPCC Guidelines.	Partly Partly	Tajikistan reported a summary table containing totals for subcategories only. Tajikistan reported a summary table containing totals for subcategories only.
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 did not include 1990–2003. These years were covered in the NC3.
Decision 2/CP.17, annex III, paragraph 8	Non-Annex I Parties that have previously reported on their national GHG inventories contained in their NCs are encouraged to submit summary information tables of inventories for previous submission years (e.g. for 1994 and 2000).	Partly	This information was not reported for 1990–2003.
Decision 2/CP.17, annex III, paragraph 9	The inventory section of the BUR should consist of a national inventory report as a summary or as an update of the information contained in decision 17/CP.8, annex, chapter III (National greenhouse gas inventories), including:		

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no/NA</i>	<i>Comments on the extent of the information provided</i>
	(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 the table in annex 2 to the first BUR.
	(b) Table 2 (National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF ₆).	Yes	Comparable information was reported in the table in annex 2 to the first BUR.
Decision 2/CP.17, annex III, paragraph 10	Additional or supporting information, including sector-specific information, may be supplied in a technical annex.	NA	Tajikistan did not submit a technical annex.
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.	Partly	Information was provided on institutions involved in data generation, collection and archiving, but not on ongoing or planned efforts to make this a continuous process.
Decision 17/CP.8, annex, paragraph 14	Each non-Annex I Party shall, as appropriate and to the extent possible, provide in its national inventory, on a gas-by-gas basis and in units of mass, estimates of anthropogenic emissions of:		
	(a) CO ₂ ;	Yes	
	(b) CH ₄ ;	Yes	
	(c) N ₂ O.	Yes	
Decision 17/CP.8, annex, paragraph 15	Non-Annex I Parties are encouraged, as appropriate, to provide information on anthropogenic emissions by sources of:		
	(a) HFCs;	No	
	(b) PFCs;	Yes	
	(c) SF ₆ .	No	
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) CO;	No	
	(b) NO _x ;	No	
	(c) NMVOCs.	No	
Decision 17/CP.8, annex, paragraph 17	Other gases not controlled by the Montreal Protocol, such as SO _x , and included in the Revised 1996 IPCC Guidelines may be included at the discretion of Parties.	No	
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	No	

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no/NA</i>	<i>Comments on the extent of the information provided</i>
	and to explain any large differences between the two approaches.		
Decision 17/CP.8, annex, paragraph 19	Non-Annex I Parties should, to the extent possible, and if disaggregated data are available, report emissions from international aviation and marine bunker fuels separately in their inventories:		
	(a) International aviation;	Yes	
	(b) Marine bunker fuels.	Yes	
Decision 17/CP.8, annex, paragraph 20	Non-Annex I Parties wishing to report on aggregated GHG emissions and removals expressed in CO ₂ eq should use the GWP provided by the IPCC in its Second Assessment Report based on the effects of GHGs over a 100-year time-horizon.	Yes	
Decision 17/CP.8, annex, paragraph 21	Non-Annex I Parties are encouraged to provide information on methodologies used in the estimation of anthropogenic emissions by sources and removals by sinks of GHGs not controlled by the Montreal Protocol, including a brief explanation of the sources of 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	Tajikistan used the 2006 IPCC Guidelines. Tier 2 methodology was used for the waste sector (CH ₄ emissions from solid waste disposal) and tier 1 methodology for other sectors.
	(b) Explanation of the sources of EFs;	Yes	Tajikistan 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,	Each non-Annex I Party is encouraged to use tables 1 and 2 of the guidelines annexed to decision 17/CP.8 in reporting its national GHG	No	Notation keys were not used to report emissions of some GHGs,

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no/NA</i>	<i>Comments on the extent of the information provided</i>
annex, paragraph 22	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.		such as CO, NO _x , NMVOCs, SO _x , HFCs and SF ₆ .
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:		Tajikistan provided general qualitative information on the uncertainty assessment; however, specific information on quantitative estimates of the level of uncertainty (e.g. on guidelines and tiers) was not reported.
	(a) Level of uncertainty associated with inventory data;	Partly	
	(b) Underlying assumptions;	Partly	
	(c) Methodologies used, if any, for estimating these uncertainties.	Partly	

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 Tajikistan

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 11	Non-Annex I Parties should provide information, in tabular format, on actions to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all GHGs not controlled by the Montreal Protocol.	Yes	
Decision 2/CP.17, annex III, paragraph 12	For each mitigation action or group of mitigation actions, including, as appropriate, those listed in document FCCC/AWGLCA/2011/INF.1, developing country Parties shall provide the following information, to the extent possible:		
	(a) Name and description of the mitigation action, including information on the nature of the action, coverage (i.e. sectors and gases), quantitative goals and progress indicators;	Partly	Information on the nature and coverage of all mitigation actions was reported. However, information on quantitative goals and progress indicators was not reported for any of the mitigation actions.
	(b) Information on:		
	(i) Methodologies;	No	
	(ii) Assumptions;	No	
	(c) Information on:		
	(i) Objectives of the action;	No	
	(ii) Steps taken or envisaged to achieve that action;	No	

<i>Decision</i>	<i>Provision of the reporting guidelines</i>	<i>Yes/partly/no</i>	<i>Comments on the extent of the information provided)</i>
	(d) Information on:		
	(i) Progress of implementation of the mitigation actions;	Yes	
	(ii) Progress of implementation of the underlying steps taken or envisaged;	No	
	(iii) Results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emission reductions, to the extent possible;	No	
	(e) Information on international market mechanisms.	No	
Decision 2/CP.17, annex III, paragraph 13	Parties should provide information on domestic MRV arrangements.	Yes	Tajikistan provided information on domestic MRV arrangements in sections 1.12, 2.4 and 6 of its BUR. Similarly, table 29 of the BUR contains general descriptions of the MRV system for mitigation actions.

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 Tajikistan

<i>Decision</i>	<i>Provision of the reporting requirements</i>	<i>Yes/partly/no</i>	<i>Comments on the extent of the information provided</i>
Decision 2/CP.17, annex III, paragraph 14	Non-Annex I Parties should provide updated information on:		
	(a) Constraints and gaps;	No	
	(b) Related financial, technical and capacity-building needs.	Partly	Tajikistan only reported on financial, technical and capacity-building needs with respect to the national GHG inventory process.
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;	Yes	
	(b) Information on technical support received from the Global Environment Facility, Parties included in Annex II to the Convention and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current 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;	Partly	Tajikistan reported on the need for investment in infrastructure in certain sectors (such as manufacturing and water); however, it did not report on past, existing or future national processes for identifying such technologies.

<i>Decision</i>	<i>Provision of the reporting requirements</i>	<i>Yes/partly/no</i>	<i>Comments on the extent of the information provided</i>
	(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>.

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B. UNFCCC documents

First BUR of Tajikistan. Available at <https://unfccc.int/BURs>.

NC1, NC2 and NC3 of Tajikistan. Available at <https://unfccc.int/non-annex-I-NCs>.
