United Nations

FCCC/ARR/2022/CYP

Framework Convention on Climate Change

Distr.: General
1 May 2023

English only

Report on the individual review of the annual submission of Cyprus submitted in 2022*

Note by the expert review team

Summary

Each Party included in Annex I to the Convention must submit an annual inventory of emissions and removals of greenhouse gases for all years from the base year (or period) to two years before the inventory due date (decision 24/CP.19). Parties included in Annex I to the Convention that are Parties to the Kyoto Protocol are also required to report supplementary information under Article 7, paragraph 1, of the Kyoto Protocol with the inventory submission due under the Convention. This report presents the results of the individual review of the 2022 annual submission of Cyprus, conducted by an expert review team in accordance with the "Guidelines for review under Article 8 of the Kyoto Protocol". The review took place from 5 to 10 September 2022 in Bonn.

* In the symbol for this document, 2022 refers to the year in which the inventory was submitted, not to the year of publication.

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Abbreviations and acronyms

2006 IPCC Guidelines	*2006 IPCC Guidelines for National Greenhouse Gas Inventories*
AD	activity data
Annex A source	source category included in Annex A to the Kyoto Protocol
AR	afforestation and reforestation
Article 8 review guidelines	"Guidelines for review under Article 8 of the Kyoto Protocol"
CH_4	methane
CM	cropland management
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
Convention reporting adherence	adherence to the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories"
COPERT	software tool for calculating road transport emissions
CORINE	Coordination of Information on the Environment (programme)
CPR	commitment period reserve
CRF	common reporting format
EF	emission factor
ERT	expert review team
ESD	European Union effort-sharing decision
EU	European Union
EU ETS	European Union Emissions Trading System
Eurostat	statistical office of the European Union
FM	forest management
FMRL	forest management reference level
GHG	greenhouse gas
GM	grazing land management
HFC	hydrofluorocarbon
IE	included elsewhere
IEA	International Energy Agency
IEF	implied emission factor
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
ITL	international transaction log
KP reporting adherence	adherence to the reporting guidelines under Article 7, paragraph 1, of the Kyoto Protocol
KP-LULUCF	activities under Article 3, paragraphs 3–4, of the Kyoto Protocol
Kyoto Protocol Supplement	*2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol*
LPG	liquefied petroleum gas
LULUCF	land use, land-use change and forestry
N_2O	nitrous oxide
NA	not applicable
NE	not estimated
NF_3	nitrogen trifluoride
NIR	national inventory report
NO	not occurring
QA/QC	quality assurance/quality control
RV	revegetation

SEF	standard electronic format
SF_6	sulfur hexafluoride
SIAR	standard independent assessment report
UNFCCC Annex I inventory reporting guidelines	"Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories"
UNFCCC review guidelines	"Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention"
WDR	wetland drainage and rewetting
Wetlands Supplement	2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands

I. Introduction

1. This report covers the review of the 2022 annual submission of Cyprus, organized by the secretariat in accordance with the Article 8 review guidelines (adopted by decision 22/CMP.1 and revised by decision 4/CMP.11). In accordance with the Article 8 review guidelines, this review process also encompasses the review under the Convention as described in the UNFCCC review guidelines, particularly in part III thereof, namely the "UNFCCC guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention" (annex to decision 13/CP.20). The review took place from 5 to 10 September 2022 in Bonn and was coordinated by Davor Vesligaj, Federico Brocchieri, Javier Hanna and Claudia do Valle (secretariat). Table 1 provides information on the composition of the ERT that conducted the review for Cyprus.

Table 1
Composition of the expert review team that conducted the review for Cyprus

Area of expertise	*Name*	*Party*
Generalist	Valentina Idrissova	Canada
	Eva Krtkova	Czechia
Energy	Renata Grisoli	Brazil
	Yves Marenne	Belgium
	Dingane Sithole	Zimbabwe
	Anand Sookun	Mauritius
IPPU	Joseph Baffoe	Ghana
	Siriluk Chiarakorn	Thailand
	Pia-Kristiina Forsell	Finland
	Maria Purzner	Austria
Agriculture	Jorge Alvarez	Peru
	Yauheniya Bertash	Belarus
	Anais Durand	France
	Steen Gyldenkaerne	Denmark
LULUCF and KP-LULUCF	Tatenda Gotore	Zimbabwe
	Inge Jonckheere	Belgium
	Sekai Ngarize	Zimbabwe
Waste	Mayra Rocha	Brazil
	Sergii Shmarin	Ukraine
Lead reviewers	Valentina Idrissova	
	Mayra Rocha	

2. The basis of the findings in this report is the assessment by the ERT of the Party's 2022 annual submission in accordance with the UNFCCC review guidelines and the Article 8 review guidelines.

3. The ERT has made recommendations that Cyprus resolve identified findings, including issues[1] designated as problems.[2] Other findings, and, if applicable, the encouragements of the ERT to Cyprus to resolve related issues, are also included in this report.

[1] Issues are defined in decision 13/CP.20, annex, para. 81.
[2] Problems are defined in decision 22/CMP.1, annex, paras. 68–69, as revised by decision 4/CMP.11.

4. A draft version of this report was communicated to the Government of Cyprus, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

5. Annex I presents the annual GHG emissions of Cyprus, including totals excluding and including LULUCF, indirect CO_2 emissions, and emissions by gas and by sector, and contains background data on emissions and removals from KP-LULUCF, if elected by the Party, by gas, sector and activity.

6. Information to be included in the compilation and accounting database can be found in annex II.

II. Summary and general assessment of the Party's 2022 annual submission

7. Table 2 provides the assessment by the ERT of the Party's 2022 annual submission with respect to the tasks undertaken during the review. Further information on the issues identified, as well as additional findings, may be found in tables 3 and 5.

Table 2
Summary of review results and general assessment of the 2022 annual submission of Cyprus

Assessment			*Issue/problem ID#(s) in table 3 or 5*[a]
Date(s) of submission	Original submission: NIR, 5 April 2022; CRF tables (version 5), 24 March 2022; SEF tables, 5 April 2022 Revised submission: NIR (additional information), 9 September 2022; CRF tables (version 10), 2 June 2022; CRF tables (version 11), 9 September 2022; SEF tables, 31 August 2022 Unless otherwise specified, values from the most recent submission are included in this report		
Review format	Centralized		
Application of the requirements of the UNFCCC Annex I inventory reporting guidelines and the Wetlands Supplement (if applicable)	Have any issues been identified in the following areas:		
	(a) Identification of key categories?	No	
	(b) Selection and use of methodologies and assumptions?	Yes	L.11, W.3
	(c) Development and selection of EFs?	Yes	L.7, L.9
	(d) Collection and selection of AD?	Yes	E.2, L.1, W.4, KL.10
	(e) Reporting of recalculations?	No	
	(f) Reporting of a consistent time series?	No	
	(g) Reporting of uncertainties, including methodologies?	Yes	G.11
	(h) QA/QC?	QA/QC procedures were assessed in the context of the national system (see supplementary information under the Kyoto Protocol below)	
	(i) Missing categories, or completeness?[b]	Yes	I.5, L.4, L.13, W.2, W.4
	(j) Application of corrections to the inventory?	No	
Significance threshold	For categories reported as insignificant, has the Party provided sufficient information showing that the likely level of emissions meets the criteria in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines?	NA	The Party did not report any insignificant categories as "NE"
Description of trends	Did the ERT conclude that the description in the NIR of the trends for the different gases and sectors is reasonable?	Yes	
Supplementary information under	Have any issues been identified related to the following aspects of the national system:		

Assessment			*Issue/problem ID#(s) in table 3 or 5[a]*
the Kyoto Protocol	(a) Overall organization of the national system, including the effectiveness and reliability of the institutional, procedural and legal arrangements?	No	
	(b) Performance of the national system functions?	No	
	Have any issues been identified related to the national registry:		
	(a) Overall functioning of the national registry?	No	
	(b) Performance of the functions of the national registry and the adherence to technical standards for data exchange?	No	
	Have any issues been identified related to the reporting of information on assigned amount units, certified emission reductions, emission reduction units and removal units and on discrepancies in accordance with decision 15/CMP.1, annex, chapter I.E, in conjunction with decision 3/CMP.11, taking into consideration any findings or recommendations contained in the SIAR?	No	
	Have any issues been identified in matters related to Article 3, paragraph 14, of the Kyoto Protocol, specifically problems related to the transparency, completeness or timeliness of the reporting on the Party's activities related to the priority actions listed in decision 15/CMP.1, annex, paragraph 24, in conjunction with decision 3/CMP.11, including any changes since the previous annual submission?	Yes	G.1
	Have any issues been identified related to the following reporting requirements for KP-LULUCF:		
	(a) Reporting requirements of decision 2/CMP.8, annex II, paragraphs 1–5?	No	
	(b) Demonstration of methodological consistency between the reference level and reporting on FM in accordance with decision 2/CMP.7, annex, paragraph 14?	No	
	(c) Reporting requirements of decision 6/CMP.9?	No	
	(d) Country-specific information to support provisions for natural disturbances in accordance with decision 2/CMP.7, annex, paragraphs 33–34?	No	
CPR	Was the CPR reported in accordance with decision 18/CP.7, annex; decision 11/CMP.1, annex; and decision 1/CMP.8, paragraph 18?	Yes	G.5
Adjustments	Has the ERT applied any adjustments under Article 5, paragraph 2, of the Kyoto Protocol?	No	
	Has the Party submitted a revised estimate to replace a previously applied adjustment?	NA	Cyprus does not have a previously applied adjustment
Response from the Party during the review	Has the Party provided the ERT with responses to the questions raised, including the data and information necessary for assessing conformity with the UNFCCC Annex I inventory reporting guidelines and any further guidance adopted by the Conference of the Parties?	Yes	
Recommendation for an exceptional in-country review	On the basis of the issues identified, does the ERT recommend that the next review be conducted as an in-country review?	Yes	See annex III for a list of the questions and issues to be considered during the review

Assessment		*Issue/problem ID#(s) in table 3 or 5*[a]
Questions of implementation	Did the ERT list any questions of implementation?	No

[a] Further information on the issues identified, as well as additional findings, may be found in tables 3 and 5.
[b] Missing categories for which methods are provided in the 2006 IPCC Guidelines may affect completeness and are listed in annex III.

III. Status of implementation of recommendations included in the previous review report

8. Table 3 compiles the recommendations from previous review reports that were included in the most recent previous review report, published on 13 April 2021,[3] and had not been resolved by the time of publication of the report on the review of the Party's 2020 annual submission. The ERT has specified whether it believes the Party had resolved, was addressing or had not resolved each issue or problem by the time of publication of this review report and has provided the rationale for its determination, which takes into consideration the publication date of the most recent previous review report and national circumstances.

Table 3
Status of implementation of recommendations included in the previous review report for Cyprus

ID#	*Issue/problem classification*[a, b]	*Recommendation made in previous review report*	*ERT assessment and rationale*
General			
G.1	Article 3.14 (G.14, 2020) KP reporting adherence	Report any changes to the information provided under Article 3, paragraph 14, of the Kyoto Protocol in accordance with decision 15/CMP.1 in conjunction with decision 3/CMP.11.	Addressing. In its NIR (chap. 15), the Party reported information on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol. However, the Party did not report whether there were any changes in its reporting since the previous annual submission. During the review, Party confirmed that there were no changes or updates to the reported information. The ERT concludes that this potential problem of a mandatory nature does not influence the Party's ability to fulfil its commitments for the second commitment period of the Kyoto Protocol and therefore this issue was not included in the list of potential problems and further questions raised.
G.2	CRF tables (G.2, 2020) (G.8, 2019) (G.5, 2017) (G.8, 2016) (G.8, 2015) (table 4, 2013) Convention reporting adherence	Provide relevant explanations in CRF table 9, specifically for all cases of the notation key "NE" being reported and for sources reported as "IE" (e.g. indirect emissions from agricultural soils).	Addressing. CRF table 9 includes an explanation for reporting CH_4 and N_2O emissions as "NE" in category 2.D.1 lubricant use in the IPPU sector. The use of notation key "NE" in other sectors (e.g. LULUCF, CH_4 emissions in CRF tables 4.B–4.F) was not explained. No explanation was provided in CRF table 9 for the use of notation key "IE". The information reported in the "Explanation" column for reporting "IE" in the energy sector should have been reported in the column "Allocation used by the Party". The use of "IE" in category 2.G in the IPPU sector was not explained.
G.3	CRF tables (G.15, 2020) Comparability	Complete the blank cells in the CRF tables for the IPPU, agriculture and LULUCF sectors and CRF summary tables 2 (2.B and 2.G for fluorinated gases) and 3 (1.B, 2.B, 2.C, 4.B–4.F and 5.C).	Resolved. The Party filled in the blank cells of CRF tables with corresponding notation keys for the IPPU, agriculture and LULUCF sectors. The Party also reported "NO" for 2.B in CRF summary table 2 and corresponding values and notation keys for 2.G. CRF summary table 3 contains methodologies applied for those sources and sinks that occur in the country.

[3] FCCC/ARR/2020/CYP. The ERT notes that the report on the individual inventory review of Cyprus's 2021 annual submission has not been published yet owing to insufficient funding for the review process. As a result, the latest previously published annual review report reflects the findings of the review of the Party's 2020 annual submission.

ID#	*Issue/problem classification*[a, b]	*Recommendation made in previous review report*	*ERT assessment and rationale*
G.4	Methods (G.4, 2020) (G.11, 2019) (G.10, 2017) (G.15, 2016) (G.15, 2015) Accuracy	Ensure that appropriate methods are used to estimate emissions for key categories.	Resolved. The Party reported in CRF summary table 3 and NIR table 1.3 the use of country-specific and tier 2 methods for most key categories. In addition, in its reply to the assessment report, the Party explained that appropriate methods were used where AD were available. The ERT believes that given its limited resource capacities, Cyprus has improved its estimation methods. Sector-specific issues are included under corresponding sections.
G.5	Kyoto Protocol units (G.12, 2020) (G.12, 2019) (G.24, 2017) KP reporting adherence	Report in the NIR information in accordance with decision 15/CMP.1, annex, paragraphs 12–18, in conjunction with decision 3/CMP.11, including on information reported in the SEF tables; discrepancies and notification; publicly accessible registry information; and the calculation of the CPR.	Addressing. In its NIR (chap. 12), the Party explained that the SEF tables were submitted together with the NIR. The SEF reporting software was used for this purpose. However, Cyprus's national registry was still not connected to the ITL at the time. Therefore, no transactions took place to and from Cyprus's account and "NO" was reported for all units in the SEF tables. According to the ITL team analysis, there was only one formatting issue relating to the second commitment period of the Kyoto Protocol found in SEF table 2C. The revised SEF tables were submitted to the secretariat in August 2022. During the review, Cyprus confirmed that no discrepancies have been identified by the ITL and no notification has been received by the Party to replace any units. Chapter 12 of the NIR includes an explanation of the joint assigned amount of the EU, its member States and Iceland for the second commitment period of the Kyoto Protocol. No information was provided in the NIR on the CPR. During the review, and in its comments to the preliminary main findings, Cyprus explained that the CPR was calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1 and decision 1/CMP.8, paragraph 18. It is equal to 42,705,115 t CO_2 eq, which corresponds to 90 per cent of Cyprus's assigned amount calculated pursuant to Article 3, paragraphs 7 and 8, of the Kyoto Protocol. The Party further explained that its CPR has not changed since the previous submission, and indeed its initial report, in which it was reported as 100 per cent of eight times Cyprus's most recently reviewed inventory, and remains higher than 90 per cent of the assigned amount. The ERT notes that for the purposes of calculating the lowest value of the CPR, the Party should calculate 100 per cent of eight times the most recent inventory (equal to 71,027.51 kt CO_2 eq in the 2022 submission) for the value against which to compare 90 per cent of the assigned amount. The ERT confirms that the CPR as contained in the initial report still results in the lowest value. The ERT acknowledges the limited resources of Cyprus and its efforts to improve reporting. The ERT concludes that this potential problem of a mandatory nature does not influence the Party's ability to fulfil its commitments for the second commitment period of the Kyoto Protocol and therefore this issue was not included in the list of potential problems and further questions raised.
G.6	National registry (G.10, 2020) (G.13, 2019) (G.18, 2017)	Include in the NIR information on the national registry in accordance with decision 5/CMP.1 and the annex to decision 13/CMP.1 in	Resolved. In its NIR (chap. 14), the Party reported all the required information, including contact information for the designated organization and registry administrator, and a description of the standardized electronic database applied for

ID#	Issue/problem classification[a, b]	Recommendation made in previous review report	ERT assessment and rationale
	(G.19, 2016) (G.19, 2015) KP reporting adherence	conjunction with decision 3/CMP.11 and other relevant provisions and standards (including contact information for the designated organization and registry administrator, and a description of the standardized electronic database applied for registry performance and publicly accessible information).	registry performance and publicly accessible information. The ERT considers this information to be relevant and sufficient.
G.7	National registry (G.11, 2020) (G.14, 2019) (G.23, 2017) KP reporting adherence	Report any change to the national registry (since the previous annual submission) in the NIR in accordance with decision 15/CMP.1, annex, paragraph 22.	Resolved. In its NIR (chap. 14), the Party reported that its national registry is still not connected to the ITL and no changes have been made to the national registry. In its comments to the preliminary main findings, Cyprus indicated that the ITL confirmed that the national registry has been fully connected to the ITL. This update will be presented accordingly in the next NIR.
G.8	National system (G.5, 2020) (G.15, 2019) (G.7, 2017) (G.9, 2016) (G.9, 2015) KP reporting adherence	Report on the progress of implementation of the workplan that includes the description of legal, institutional and procedural arrangements for performing the functions of the national system, and explain the activities in place for continuous and sustainable reporting, including enhancing the capacity to report supplementary information under the Kyoto Protocol, in particular on the LULUCF sector.	Resolved. The Party reported in its NIR (chap. 1) a description of its legal, institutional and procedural arrangements for performing the functions of the national system, including enhancing the capacity to report supplementary information under the Kyoto Protocol. In addition, Cyprus included additional information on KP-LULUCF in the NIR (chap. 11). During the review, it resubmitted the CRF tables together with the amendment to the NIR to reflect the missing information related to KP-LULUCF.
G.9	National system (G.6, 2020) (G.16, 2019) (G.22, 2017) KP reporting adherence	Implement the workplan in accordance with the listed tasks and deadlines and update the text in the NIR accordingly to describe any changes to the national system.	Resolved. The Party provided in its NIR (chap. 1) a description of the legal, institutional and procedural arrangements for performing the functions of the national system. Chapter 13 of the NIR reports changes that were introduced in 2017. During the review, Cyprus provided additional information on the proposals to improve the GHG inventory preparation process. However, the coronavirus disease 2019 pandemic during 2020–2021 led to a delay in the implementation of the proposed improvements. Cyprus confirmed that no changes to the national system have been introduced since the last review and expects the proposed changes to be introduced in the coming years and be reflected in future reporting cycles.
G.10	Notation keys (G.7, 2020) (G.23, 2019) Completeness	Assess the significance of emissions and removals when reporting them as “NE” and indicate in both the NIR and the CRF completeness table (CRF table 9) why such emissions or removals have not been estimated, in accordance with paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines.	Resolved. The Party did not report any insignificant categories as “NE”, in accordance with paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines.

ID#	*Issue/problem classification*[a, b]	*Recommendation made in previous review report*	*ERT assessment and rationale*
G.11	Uncertainty analysis (G.8, 2020) (G.20, 2019) (G.14, 2017) (G.6, 2016) (G.6, 2015) Convention reporting adherence	Conduct an uncertainty analysis for LULUCF after the LULUCF reporting has been completed.	Not resolved. The Party did not report an uncertainty analysis for LULUCF in its NIR, neither in annex 2 under "Uncertainties" nor in the corresponding subchapters, owing to unavailable data. In its NIR (chap. 1.5), Cyprus confirmed that the LULUCF sector was omitted from the uncertainty analysis. In its reply to the SIAR, the Party explained that it has continued its efforts to obtain the required information and will conduct an uncertainty analysis for LULUCF once sufficient information becomes available.
G.12	Uncertainty analysis (G.9, 2020) (G.24, 2019) Transparency	Provide the sources of expert judgment used to quantitatively assess the uncertainty of source or sink categories for AD or EFs in annex 2 to the NIR, consistently with the 2006 IPCC Guidelines (vol. 1, section 3.5).	Resolved. In its NIR (annex 2, table 2.1), the Party provided its rationale for the selection of the uncertainty values for AD and EFs by sector and gas. Most of the AD were collected from the Statistical Service of Cyprus and use the default IPCC uncertainty range. EF uncertainties mostly correspond to the values in the 2006 IPCC Guidelines for corresponding methods. Expert judgment for EFs was used for fluorinated gases, SF_6 and N_2O from product uses, as explained in the reporting under the IPPU sector. In its reply to the SIAR, Cyprus confirmed that AD are provided by the Statistical Service of Cyprus. More country-specific uncertainty values will be applied for sectors where additional research is performed (e.g. measurements by the Cyprus Institute around cattle farms, landfills and traffic stations).
G.13	Uncertainty analysis (G.16, 2020) Convention reporting adherence	Include information in the NIR on how the uncertainty estimates help the Party to prioritize its efforts to improve the accuracy of the national inventory and to guide its methodological decisions.	Resolved. In annex 2 (A2.1) to the NIR, the Party confirmed that the uncertainty analysis is intended to help to prioritize its efforts to improve the accuracy of estimates and guide its decisions on methodological choice at least for key categories. During the review, Cyprus explained that the key categories are prioritized where the uncertainty analysis is taken into consideration in order to plan surveys and in situ measurements in order to improve the quality of data and selection of methodologies.
Energy			
E.1	1. General (energy sector) – all fuels – CO_2, CH_4 and N_2O (E.1, 2020) (E.1, 2019) (E.1, 2017) (E.1, 2016) (E.1, 2015) (18, 2013) Transparency	Provide information on how emissions are estimated by including information on efforts to reconcile energy balance and EU ETS data, as well as additional information on the use of EU ETS data and an explanation of how the time-series consistency of the emission estimates is ensured.	Resolved. The Party reported in its NIR (chap. 1.2.2.1, p.34) that data collection and checks for all source and sink categories is the first step in inventory compilation. QC of AD includes comparing the data from alternative sources (e.g. Statistical Service of Cyprus, EU ETS reports and energy balance) as well as time-series assessment in order to identify changes that cannot be explained. In cases where problems and/or inconsistencies are identified, a representative of the agency responsible for providing the data is asked to explain the inconsistency and/or help to solve the problem.
E.2	1.A Fuel combustion – sectoral approach – solid biomass – CO_2, CH_4 and N_2O (E.19, 2020) Accuracy	Revise the estimates of CO_2, CH_4 and N_2O emissions from solid biomass in 2017 on the basis of the correct AD and report the impact of the correction in the NIR.	Not resolved. The previous ERT noted that in 2017, IEA reported apparent solid biomass consumption of 1,037 TJ for Cyprus, which is 4.5 per cent higher than the value of 990 TJ given in CRF table 1.A(b). During the previous review, the Party clarified that the IEA value was correct and would be reported in the next submission. The ERT noted that the Party reported in NIR table 3.30 (p.101) that the apparent consumption for solid biomass is 1,838 TJ and in CRF table 1.A(b) that the apparent consumption for solid biomass is 1,072.05 TJ. The ERT found that the Party had underestimated CH_4 emissions by 0.574 kt and N_2O emissions by 0.912 in 2017 giving

ID#	Issue/problem classification[a, b]	Recommendation made in previous review report	ERT assessment and rationale
			a total of 1.49 kt CO_2 eq, which is below the significance threshold for application of an adjustment in accordance with decision 22/CMP.1, annex, paragraph 80(b), in conjunction with decision 4/CMP.11 (4.44 kt CO_2 eq in 2020) and therefore not included in the list of potential problems and further questions raised. The Party indicated that the issue will be corrected for the next submission.
E.3	1.A Fuel combustion – sectoral approach – other biomass – CO_2, CH_4 and N_2O (E.20, 2020) Accuracy	Include the estimates of CO_2, CH_4 and N_2O emissions from biogenic waste consumption on the basis of the correct AD and report the impact of the correction in the NIR.	Resolved. The Party reported in NIR table 3.40 (p.109) biomass waste consumption under category 1.A.f non-metallic minerals. The emissions from biomass waste consumption are reported in CRF table 1.A(a)s2 and the fuel consumption figure for 2016 is 482 TJ. The value of 482 TJ is different from the value of 427 TJ from IEA as cited by the previous ERT. During the review, the Party clarified that the value was already corrected in the calculation files for the biogenic waste emissions and the consumption figure is the same as that used in IEA. The Party also provided a table detailing how the calculation was done based on the EFs in CRF table 1.A(a)s2. The ERT considers this issue resolved.
E.4	1.A.2.c Chemicals – liquid fuels – CO_2, CH_4 and N_2O (E.5, 2020) (E.9, 2019) (E.18, 2017) Transparency	Correct the AD for 2013 (i.e. report liquid fuel consumption as "NO") and explain the inter-annual variation in the AD and CO_2, CH_4 and N_2O emissions in the NIR.	Resolved. The Party reported in its NIR (table 3.10) that consumption of liquid fuels is "NO". In CRF table 1.A(a)s2 the fuels and emissions are also reported as "NO" for 2013. The Party stated in the NIR (p.81) that solid biomass consumption was reported for the first time in 2014 and that although there is potential consumption of liquid fuels by chemical industries, the number appears to be zero owing to rounding off.
E.5	1.A.2.g Other (manufacturing industries and construction) – liquid fuels – CO_2, CH_4 and N_2O (E.9, 2020) (E.23, 2019) Comparability	Correct the reporting by allocating the LPG consumption reported in the energy balance under other sector – not specified elsewhere and the corresponding emissions to the category other stationary (1.A.5a) in both the NIR (tables 3.24–3.25) and CRF table 1.A(a).	Resolved. The Party reported in its NIR (chap. 3.2.7.2, table 3.27, p.97) LPG AD under category 1.A.5 LPG consumption is reported as "0" under category 1.A.2.m in NIR table 3.10 (p.78). AD for LPG are reported as 1 TJ from 2013 to 2020 in the NIR (table 3.27, p.97) and CRF table 1.A(a)s4.
E.6	1.A.3.b Road transportation – liquid fuels – CO_2, CH_4 and N_2O (E.11, 2020) (E.24, 2019) Transparency	Document in the NIR how the COPERT V model and the EFs applied are appropriate to the national circumstances.	Resolved. The Party reported in its NIR (p.87) that using the COPERT V model to calculate road transport emissions allows for a transparent and standardized, consistent and comparable data collecting and emissions reporting procedure, in accordance with the requirements of international conventions and protocols and EU legislation. Cyprus further reported that the use of COPERT V methodology supports reporting under the United Nations Economic Commission for Europe Convention on Long-Range Transboundary Air Pollution and the EU directive on national emissions ceilings.
E.7	1.A.3.b Road transportation – liquid fuels – CO_2	Correct the CO_2 EF used to estimate emissions from gasoline consumption in road transportation for 1993 and 1994 and ensure the time-series consistency of the applied EFs.	Resolved. The Party reported in CRF table 1.A(a)s3 that the CO_2 EF for gasoline consumption in road transportation was 72.03 t/TJ in 1993 and 72.06 t/TJ in 1994. The ERT considers the values comparable to other years, for example, 1990 (71.93

ID#	*Issue/problem classification*[a, b]	*Recommendation made in previous review report*	*ERT assessment and rationale*
	(E.12, 2020) (E.25, 2019 Accuracy		t/TJ), 1991 (71.98 t/TJ), 1992 (72.02) and 1995 (72.09). The 2006 IPCC Guidelines default upper value is 73.00 t/TJ.
E.8	1.A.3.b Road transportation – liquid fuels – N_2O (E.13, 2020) (E.26, 2019) Accuracy	Correct the N_2O EF used to estimate emissions from diesel consumption in road transportation for 1999 and 2000 and ensure the time-series consistency of the applied EFs.	Resolved. The Party reported in CRF table 1.A(a)s3 that the IEF for diesel consumption in road transportation was 3.27 t/TJ in 1999 and 3.16 t/TJ in 2000. The IEFs for 1999 and 2000 are comparable to other years, for example, 3.24 t/TJ in 1997, 3.17 t/TJ in 1998, 3.31 t/TJ in 2001 and 3.45 t/TJ in 2002.
E.9	1.A.3.b.ii Light-duty trucks – liquid fuels – N_2O (E.14, 2020) (E.27, 2019) Accuracy	Correct the estimates of N_2O emissions from diesel consumption by light-duty trucks for 1990–1999.	Addressing. The Party reported in its NIR (section 3.3.1.2, p.88), that the emissions were estimated using the COPERT V model. N_2O emissions from light-duty vehicles were reported as "IE" for 1990–1994 and as 0.00 kt after rounding off for 1995–1999. The values for diesel consumed for 1990–2020 by light-duty vehicles are reported in CRF table 1.A(a)s3. During the review, the Party indicated that the N_2O emissions are indeed zero for that category in 1990–1994. According to EMISIA, there is an uncorrected fault with respect to 1990–1994. Cyprus indicated that in the next submission it will use the latest version of COPERT and if the problem persists contact EMISIA to try to solve it.
E.10	1.A.3.d Domestic navigation – liquid fuels – CO_2, CH_4 and N_2O (E.15, 2020) (E.17, 2019) (E.10, 2017) (E.21, 2016) (E.21, 2015) Transparency	Report in the NIR on any progress achieved in improving the consistency of the time series.	Not resolved. The Party reported in its NIR (section 3.2.5, p.90) that for 1990–1997 the contribution of domestic waterborne navigation activities to road transport emissions was based on the 1998 figure of 0.33 per cent. The Party reported in NIR table A6.2 that further progress will be reported in future inventories (p.388). During the review, the Party indicated that this will be resolved in future submissions when enough AD become available.
IPPU			
I.1	2. General (IPPU) – all gases (I.11, 2020) Transparency	Include in the NIR an assessment of the completeness of categories and emissions estimated for the IPPU sector, with an explanation for each category and gas for which no emissions are estimated, for example by reporting relevant notation keys in NIR table 4.2.	Not resolved. In NIR table 4.2, the notation key "NE" was used for most categories and gases in the IPPU completeness table, suggesting that emissions have not been estimated. During the review, the Party indicated that the recommendation was resolved; however, NIR table 4.2 still contains the notation key "NE" for categories where it is not applicable. For example, SF_6 emissions from cement production are not applicable and the notation key "NA" should be used. The ERT considers that the recommendation has not been fully addressed because the Party has not assessed the completeness of table 4.2 for emissions from the provided categories in accordance with the 2006 IPCC Guidelines. Consistent with the findings in the previous review report, the ERT concluded that the information provided by the Party during the review demonstrated that there is no completeness issue associated with the cells for which "NE" was reported in NIR table 4.2 but rather that this is a transparency issue.

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I.2	2. General (IPPU) – CO_2 (I.12, 2020) Accuracy	Ensure that indirect emissions are not included in national total direct emissions. Report the national totals in the relevant CRF tables including and excluding indirect CO_2, as required by paragraph 29 of the UNFCCC Annex I inventory reporting guidelines.	Resolved. The Party reported in its NIR (p.129) that indirect non-methane volatile organic compound emissions for category 2.D.3 previously reported in the CRF tables as direct CO_2 and included in Cyprus's national total are now reported as indirect CO_2 emissions associated with non-methane volatile organic compound emissions. This is currently reported as "IE" in table CRF 2(I)-Hs2 and included in the indirect CO_2 emissions in CRF table 6. The ERT considers that the recommendation has been addressed because the Party reported non-methane volatile organic compound emissions for category 2.D.3 as "IE" in CRF table 2(I)-Hs2 and as indirect CO_2 emissions in CRF table 6. National totals in the relevant CRF tables are reported including and excluding indirect CO_2.
I.3	2. General (IPPU) – HFCs, SF_6 and N_2O (I.10, 2020) Transparency	Include in the NIR justification, and a description of the criteria used, for selecting countries for surrogate data for estimating HFC emissions for categories 2.F.2, 2.F.3, 2.F.4, 2.G.1 and 2.G.3.b.	Addressing. The Party reported in its NIR (p.140) the use of average per capita emissions from four countries (Greece, Italy, Malta and Spain) to calculate emissions for the three sources 2.F.2, 2.F.3 and 2.F.4. The values were obtained from the 2022 NIR submissions of these four countries for 1990–2020 (CRF table 2(II).B-H). Cyprus justified the selection of the four countries by asserting the similarity of their social and economic conditions to those of Cyprus. The Party provided clarification on the description of the methodology used for 2.G.1, which was a tier 1 EF approach wherein emissions were estimated by multiplying default regional EFs by the nameplate SF_6 capacity of the equipment at each life cycle stage. For 2.G.3.b, the Party clarified that, since there were no AD for the source according to the 2006 IPCC Guidelines, a country-specific method was used using the total population and an EF based on an average t N_2O/capita value from all EU member States reporting country-specific data using amount of gas as AD (0.00000995 t N_2O/capita in 2016). The ERT considers that the recommendation has not yet been fully addressed because the Party has not provided a clear justification and criteria that form the bases for selecting the countries and that provide reasons for not selecting any other country to improve transparency.
I.4	2.A.1 Cement production – CO_2 (I.13, 2020) Transparency	Include in the NIR emission estimates for cement production (category 2.A.1) for the entire inventory time series.	Resolved. The Party provided cement production emission estimates for inventory years 1990 and 2000–2020 in NIR table 4.5. NIR table 4.6 also provides clinker production data from two installation plants; however, the corresponding emission estimates for NIR table 4.6 have not been provided, although emissions were reported in CRF tables 2(I)s1 and 2(I).A-Hs1. The UNFCCC Annex I inventory reporting guidelines say that the Party "should" provide information in the NIR for "the base year, the most recent 10 years and any previous years since the base year ending with 0 or 5 (1990, 1995, 2000, etc.)." Under these requirements, only 1995 is missing from the time series and consistent with the guidelines. The ERT considers that the recommendation has been addressed because the Party has fulfilled the requirement set out in the UNFCCC Annex I inventory reporting guidelines regarding time series consistency for cement production.

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I.5	2.B.5 Carbide production – CO_2 (I.14, 2020) Completeness	Explain in the NIR how imported calcium carbide is used in the country and through which processes CO_2 emissions are generated (e.g. acetylene production). Estimate any CO_2 emissions from calcium carbide use by applying the corresponding EF from the 2006 IPCC Guidelines (vol. 3, chap. 3) and report these emissions in the NIR and CRF tables.	Addressing. The Party reported in its NIR (p.126) that calcium carbide is imported into the country but did not clearly indicate whether the use of calcium carbide in Cyprus generated CO_2 emissions. During the review, the Party clarified that according to further information received from the customs office and the Statistical Service of Cyprus, very small quantities of calcium carbide are imported for use in metal cutting. The ERT considers that the recommendation has not been fully addressed because the Party has not provided precise information on the quantities of calcium carbide used in the country and therefore could have provided an underestimate. On the basis of the surrogate method applied (see FCCC/ARR/2020/CYP, ID# I.14), the ERT noted that the level of CO_2 emissions is below the significance threshold for application of an adjustment in accordance with decision 22/CMP.1, annex, paragraph 80(b), in conjunction with decision 4/CMP.11 (4.44 kt CO_2 eq in 2020) and therefore not included in the list of potential problems and further questions raised.
I.6	2.D.1 Lubricant use – CO_2 (I.15, 2020) Transparency	Revise the estimated CO_2 emissions from lubricant use by allocating lubricants used in two-stroke engines to the energy sector and all other lubricants to the IPPU sector in order to avoid double counting.	Addressing. The previous ERT recommended that Cyprus revise the estimated CO_2 emissions from lubricant use by allocating lubricants used in two-stroke engines to the energy sector and all other lubricants to the IPPU sector in order to avoid double counting. However, the Party has not provided any information on this in its NIR. During the review, the Party provided an Excel sheet presenting the corrected calculations of total lubricant consumption from the values reported under road transport (1.A.3) and IPPU (2.D.1) as calculated in COPERT V. The ERT considers that the recommendation has not yet been fully addressed because the Party has not yet provided information that clearly separates lubricant use AD from the country total in the NIR.
I.7	2.D.1 Lubricant use – CO_2 (I.16, 2020) Comparability	Report in CRF table 2(I).A-H (sheet 2) AD for lubricant use (category 2.D.1) in kt instead of TJ to ensure comparability among Parties included in Annex I to the Convention.	Resolved. The Party reported in its NIR (table 4.14, p.128) and in CRF table 2(I).A-Hs2 for category 2.D.1 lubricant use AD in kt instead of TJ. The ERT considers that the recommendation has been fully addressed with the inclusion of this information in the NIR.
I.8	2.D.3 Other (non-energy products from fuels and solvent use) – CO_2 (I.17, 2020) Accuracy	Revise the estimates of CO_2 emissions from use of urea-based catalysts in vehicles on the basis of the applicable inventory years and taking into consideration vehicle class (e.g. EURO IV, V, VI) and type (e.g. bus, truck, car).	Resolved. The Party reported in its NIR (pp.129–130) new information on vehicle fleet structure for 2007–2020 using urea-based additive technologies and recalculated emissions for category 2.D.3 other – urea used as a catalyst for the whole time period (2007–2019). The ERT considers that the recommendation has been fully addressed because the Party provided the information on the CO_2 emissions from the use of urea-based catalysts, taking into consideration the vehicle class and type, and recalculated based on additional vehicle fleet.
I.9	2.F Product uses as substitutes for ozone-depleting substances – PFCs and NF_3 (I.3, 2020) (I.15, 2019) (I.11, 2017) (I.19, 2016)	Further examine whether perfluorocarbon and NF_3 emissions from product uses as substitutes for ozone-depleting substances occur in the country and, as appropriate, report estimates or	Addressing. The Party reported on the use of the notation key "NO" in CRF tables 2(I)s2 and 2(II) under the category 2F, indicating that perfluorocarbon and NF_3 emissions from substitutes for ozone-depleting substances do not occur in Cyprus. Cyprus has not included the use of notation key "NO" in the category 2.F.1 under refrigeration and air-conditioning in the CRF tables.

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	(I.19, 2015) Convention reporting adherence	report an appropriate notation key (i.e. "NO") in the corresponding CRF tables.	
I.10	2.F.1 Refrigeration and air conditioning – HFCs (I.4, 2020) (I.18, 2019) (I.12, 2017) (I.4, 2016) (I.4, 2015) (46, 2013) Transparency	Further examine whether emissions from manufacturing of refrigeration and air-conditioning equipment occur in the country and, as appropriate, report values or revise the use of the notation keys reported.	Addressing. The Party reported in its NIR (p.131) that available information indicates that there is no manufacturing of refrigeration and air-conditioning equipment in the country and therefore this activity does not occur in Cyprus. The Party appropriately reported emissions or "NO" in the CRF tables under category 2.F.1. However, Cyprus has reported emissions from manufacturing in category 2.F in CRF table 2(II)B-Hs2 for industrial and commercial refrigeration, as described in FCCC/ARR/2020/CYP.
I.11	2.F.1 Refrigeration and air conditioning – HFCs (I.5, 2020) (I.22, 2019) Comparability	Estimate emissions from mobile air conditioning (2.F.1.e) using the methods provided in the 2006 IPCC Guidelines (vol. 3, chap. 7) for 1990–2004. If national circumstances prevent the use of those methods, use surrogate data to estimate the emissions in accordance with the 2006 IPCC Guidelines (vol. 1, section 2.2.1).	Resolved. The Party reported in its NIR (pp.131–132) that emissions for category 2.F.1 have been estimated using a tier 2a methodology from the 2006 IPCC Guidelines for the entire time series in accordance with the recommendation. For mobile air conditioning specifically, the Party reports in CRF table 2(II)B-Hs2 emissions from stocks, beginning in 1992. The Party reports "NO" for 1990–1991, noting in the NIR (p.134) that the introductory year for the gas was 1992.
I.12	2.G Other product manufacture and use – N_2O and SF_6 (I.18, 2020) Transparency	Include in NIR tables 4.26–4.28 N_2O and SF_6 emission estimates and AD for the latest years of the time series.	Addressing. The Party provided in its NIR estimates of SF_6 emissions in table 4.26 and N_2O emissions in table 4.27 for the entire time series. However, information on AD has not been included. The ERT considers that the recommendation has been partly addressed because the Party provided emission estimates for SF_6 and N_2O but not the AD and recommends that the Party include it in the next NIR.
I.13	2.G Other product manufacture and use – N_2O and SF_6 (I.7, 2020) (I.20, 2019) (I.23, 2017) Accuracy	Recalculate SF_6 emissions from electrical equipment, N_2O emissions from medical applications and N_2O emissions from other – propellant for pressure and aerosol products, and include up-to-date values for population and average per capita emissions and update the values reported in CRF tables 2(I).A-Hs2 and 2(II)B-Hs2.	Resolved. During the previous review, Cyprus used the same method for estimating SF_6 emissions from electrical equipment (2.G.1) using the average emissions per capita of neighbouring countries as EFs and using the population of Cyprus as AD. The ERT recommended that Cyprus revise the methodology for estimating emissions for category 2.G.1, in particular collecting data from the national electricity provider on electrical switchgear and substations containing SF_6 for 2018–2019. During this review, the ERT notes that the Party used a country-specific method to estimate emissions for categories 2.G.3.a and 2.G.3.b using population data and an EF based on an average N_2O/capita value from all EU member States reporting country-specific data using amount of gas as AD (0.00001532 t N_2O/capita in 2016) (NIR, p.149). During the review, the Party clarified that the value of the EF used is based on the latest ESD guidance available to all member States on estimating N_2O emissions from this category and is therefore the latest updated information. The ERT considers that the recommendation has been addressed because the Party used the latest and up-to-date EF in line with all other member States regarding N_2O emissions. The Party recalculated the corresponding SF_6 and N_2O emissions in the CRF tables.
I.14	2.G.1 Electrical equipment – N_2O and SF_6	Estimate SF_6 emissions from electrical equipment (2.G.1) by using the methods	Resolved. The Party reported in its NIR (p.148) and CRF table2(II)B-Hs2 SF_6 emissions from electrical equipment (2.G.1) using the tier 1 methodology provided in

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	(I.8, 2020) (I.24, 2019) Accuracy	provided in the 2006 IPCC Guidelines (vol. 3, chap. 8). If national circumstances prevent the use of those methods, use surrogate data to estimate the emissions, in accordance with the 2006 IPCC Guidelines (vol. 1, section 2.2.1), including the use, for example, of power grid installed capacity, as SF_6 emissions are normally correlated with this parameter.	the 2006 IPCC Guidelines (the default EF approach) where emissions are estimated by multiplying default regional EFs by the nameplate SF_6 capacity of the equipment at each life cycle stage, and that there is no manufacturing in the country. The ERT considers that the recommendation has been addressed because Cyprus applied the IPCC default methodology for this non-key category and transparently included in the NIR the information on the methodology used.
I.15	2.G.3 N_2O from product uses – N_2O (I.19, 2020) Transparency	Use in NIR table 4.30 and figure 4.16 the appropriate units (i.e. kt N_2O) for reporting N_2O emissions from medical applications (category 2.G.3.a).	Resolved. The Party reported in NIR table 4.28 (p.136) emission estimates for category 2.G.3.a in t N_2O similar to SF_6 emissions from electrical equipment. The ERT considers that the recommendation has been addressed because the Party reported N_2O emissions in kt N_2O in NIR table 4.25 (p.147). The ERT further indicates that this issue of reporting in t instead of kt is of very low value in the NIR since all emissions reported in CRF table 2(I).A-Hs2 and category 2.G.3.a are appropriately reported in kt N_2O.
Agriculture			
A.1	3.B.3 Swine – CH_4 and N_2O (A.2, 2020) (A.10, 2019) Transparency	Correct the digester allocations under manure management systems in CRF table 3.B(a)s.2 for market swine for 2017.	Resolved. The Party reported in CRF table 3.B(a)s.2 a complete distribution of all market swine for 2017: 33 per cent for liquid systems, 10 per cent for solid storage and dry lot and 57 per cent for digesters.
A.2	3.B.3 Swine – CH_4 (A.5, 2020) Transparency	Provide a clear explanation in the NIR for the change in allocation of market swine manure between aerobic treatment and anaerobic digestion from 2011 onward.	Resolved. The Party corrected the manure management system allocations for market swine, cattle and poultry using new information provided by the Department of Environment and the Department of Agriculture for the entire time series. The new information on allocation of market swine manure between aerobic treatment and anaerobic digestion was reported in NIR table 5.13 (pp.166–167). These changes generated a recalculation that increased the emissions by 4.8 per cent for 1990 and 4.7 per cent for 2019 as presented in NIR table 5.19 (p.172).
LULUCF			
L.1	4. General (LULUCF) (L.1, 2020) (L.3, 2019) (L.3, 2017) (L.3, 2016) (L.3, 2015) (74, 2013) Accuracy	Report the areas converted to a different land use under the relevant land-use conversion category for 20 consecutive years before reporting them under the corresponding land remaining category.	Addressing. The Party continued to report land transitions without any transition period for the category other land. The Party reported in NIR table 6.18 data on area of land remaining in the same land-use category (other land remaining other land) and areas of land converted to the other land category from other land-use sub/categories. The rule that any piece of land after remaining for 20 years in the transitional land-use sub/category is transferred to the final land-use sub/category was not implemented for this category owing to the highly dynamic nature of the land in this category. During the review, the Party stated that the issue will be addressed in the next submission.
L.2	4. General (LULUCF) CO_2	Explore the use of, where relevant, the carbon stock change factors and assumptions used for	Resolved. The Party used the default carbon stock change factors and tier 1 approaches from the 2006 IPCC Guidelines (vol. 4, chaps. 4–8) for estimating carbon

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	(L.2, 2020) (L.6, 2019) (L.6, 2017) (L.7, 2016) (L.7, 2015) (78, 2013) Accuracy	the estimation of the carbon stock changes in biomass, deadwood and litter, and ensure comparability between the land-use changes both to and from a category.	stock changes in biomass, deadwood and litter. The Party implemented default carbon stock change factors for biomass and litter but continued to apply zero for deadwood in CRF table 4.A. The Party explained in section 6.2.4 of its NIR that deadwood carbon stocks are assumed to be zero before and after conversion in the absence of default data and in section 6.3.4 that it did not have any biomass carbon stock and incremental data for woody cropland and used default parameters from the 2006 IPCC Guidelines (table 6.5.1). The ERT considers that the recommendation has been addressed.
L.3	4. General (LULUCF) CO_2, CH_4 and N_2O (L.3, 2020) (L.7, 2019) (L.7, 2017) (L.8, 2016) (L.8, 2015) (79, 2013) Comparability	Report "NO" for any category, pool and/or gas for which there is information confirming that it does not occur, and provide such information in the NIR, and report "NE" for categories, pools and/or gases for which there is no information on emissions or removals or for which net emissions or removals are negligible.	Addressing. The Party reported "NE" for some categories in CRF tables 4(V), 4(IV), 4(III) and 4(II). During the review, the Party clarified that CRF table 4(V), biomass burning – category 4.A.1 controlled burning should be reported as "NA"; CRF table 4(III), direct N_2O emissions from N mineralization/immobilization should be reported as "IE"; and CRF table 4(II) total mineral soils - rewetted mineral soils should be reported as "NO". The Party will improve its use of notation keys in the next submission. The ERT considers that the recommendation has not yet been fully addressed because the Party has not applied all the notation keys in accordance with the UNFCCC Annex I inventory reporting guidelines.
L.4	4. General (LULUCF) – CO_2, CH_4 and N_2O (L.4, 2020) (L.9, 2019) (L.9, 2017) (L.10, 2016) (L.10, 2015) (79, 2013) Completeness	Report all mandatory carbon pools.	Addressing. The Party in its 2020 submission reported in most of the mandatory carbon pools and land-use categories, including for living biomass in forest land, cropland and grassland. However, the Party continued to report "NO" for dead organic matter, litter and soil organic carbon in forest land remaining forest land (CRF table 4.A.). The ERT considers that the recommendation has not been fully implemented. During the review, the Party stated that the issue will be addressed in the next submission.
L.5	4.A Forest land – CO_2 (L.6, 2020) (L.19, 2019) Convention reporting adherence	Revise the reporting of the area of settlements converted to forest land and ensure consistency among the areas reported in the NIR, CRF table 4.1 and CRF table 4.A.	Addressing. The Party reported in its CRF tables 4.1 and 4.A the same area of settlements converted to forest land of 0.01 kha. However, the Party continued to report inconsistently between CRF tables 4.1 and 4.A and NIR tables 6.4 and 6.5. During the review, the Party clarified that the converted areas in CRF table 4.1 represent the area that changed across land-use categories from one year to another, while in CRF table 4.A the area reported under "land converted to" is the accumulated areas in transition over 20 years, and therefore they would not be the same. The ERT considers that the recommendation has not been fully addressed given the inconsistency between NIR tables 6.4 and 6.5 and CRF tables 4.1 and 4.A.
L.6	4.A Forest land – CO_2, CH_4 and N_2O (L.12, 2020) Transparency	Include in the next submission AD for forest fires and any other coefficients and parameters used in calculating forest fire emissions.	Addressing. The Party continued to report in its NIR (p.200) that fire emissions are reported in the category forest land remaining forest land and that the default combustion factor of 0.45 was used in the calculations. No further information was provided in the NIR on AD or other parameters used in the calculations of the emissions, despite the Party having clarified in the previous review that it had fire AD from the Department of Forestry. During the review, the Party stated that the issue will be addressed in the next submission. The ERT considers that the recommendation

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			has not been fully addressed because the Party provided information on forest fires in the CRF tables, but the AD and parameters were not provided in the NIR.
L.7	4.B.1 Cropland remaining cropland – CO_2 (L.14, 2020) Accuracy	Assume that the growth and harvest of orchards in the country cancel each other out and therefore carbon stocks for living biomass are in equilibrium, and report "NA" in CRF table 4.B.	Not resolved. The Party continued to report in CRF table 4.B carbon accumulation in living biomass from woody cropland. During the review, the Party stated that the issue will be addressed in the next submission.
L.8	4.B.1 Cropland remaining cropland – CO_2 (L.15, 2020) Convention reporting adherence	Correct the errors in NIR table 6.9 (p.193).	Not resolved. The Party continued to report areas of woody cropland remaining woody cropland in NIR table 6.9 without accurately reporting the land converted areas. The Party reported that for 2020, woody cropland remaining woody cropland is 122.262 kha; however, adding the area of woody cropland remaining woody cropland in 2019 (122.336 kha) plus land converted to woody cropland in 2000 (1.506 + 0.022 kha) minus woody cropland converted to other land uses in 2019 (0.323 + 0.284 + 0.119 + 3.358 kha) brings it to 119.78 kha. During the review, the Party stated that the issue will be addressed in the next submission.
L.9	4.C.1 Grassland remaining grassland – CO_2 (L.16, 2020) Accuracy	Assume that the growth and harvest of woody grassland in the country cancel each other out and therefore carbon stocks for living biomass are in equilibrium, and report "NA" in CRF table 4.C.	Not resolved. The Party continued to report in CRF table 4.C accumulation of carbon in living biomass for grassland remaining grassland. During the review, the Party stated that the issue will be addressed in the next submission.
L.10	4.D Wetlands – CO_2 (L.7, 2020) (L.20, 2019) Convention reporting adherence	Revise the reporting of land areas converted to wetlands and ensure consistency between the information reported in CRF tables 4.1 and 4.D.	Resolved. The Party continued to report inconsistent land areas converted to wetlands between CRF tables 4.1 and 4.D. For 2020, the Party reported a land area converted to wetland area of 0.01 kha in CRF table 4.1 while reporting 0.14 kha in CRF table 4.D. During the review, the Party clarified that the converted areas in CRF table 4.1 represent the area that changed across land-use categories from one year to another, while in CRF table 4.D the area reported under "land converted to" is the accumulated areas in transition over 20 years, and therefore they would not be the same. The ERT considers that the recommendation has been fully implemented.
L.11	4.D.2.2 Land converted to flooded land – CO_2 (L.17, 2020) Accuracy	Report only emissions for newly constructed dams and flooded mines and construction sites, attributable to instantaneous oxidation of biomass for the year of conversion.	Not resolved. The Party continued to report in CRF table 4.D removals from mineral soils for land converted to wetland. During the review, the Party stated that the issue will be addressed in the next submission.
L.12	4.E Settlements – CO_2 (L.8, 2020) (L.21, 2019) Convention reporting adherence	Revise the area of settlements reported in NIR table 6.14 and ensure consistency with the total area of settlements reported in CRF table 4.E.	Resolved. The Party reported a consistent area of settlements between its NIR table 6.14 and CRF table 4.E of 66.8 kha. The ERT considers that the recommendation has been fully addressed.

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L.13	4(V) Biomass burning – CO_2, CH_4 and N_2O (L.9, 2020) (L.16, 2019) (L.10, 2017) (L.12, 2016) (L.12, 2015) (81, 2013) Completeness	Provide the missing estimates of emissions from forest fires for land converted to forest land for 2011.	Not resolved. The Party reported "NE" for CO_2, CH_4 and N_2O emissions from land converted to forest land in CRF table 4(V) for the entire time series. The Party also reported in its NIR (chap. 6) that all emissions related to forest fires were estimated under the category forest land remaining forest land. During the review, the Party clarified that it does not have fire-related AD from land converted to forest land. However, this is still a completeness issue. Parties have to find ways to collect the data or use alternative methods. In accordance with decision 13/CP.20, annex, paragraph 73, a Party may respond with claims about the amount of effort being too large relative to the impact on the level of emissions, but the Party did not discuss this and it is likely not the case for forest fires.
L.14	Land representation – CO_2, CH_4 and N_2O (L.11, 2020) Accuracy	Use the 2018 CORINE land-cover map for the next submission to ensure consistency of the AD used for land representation for the whole time series.	Resolved. The Party reported in its NIR (section 6.1.1) that the land-transition matrix was developed using the CORINE land-cover change data further processed to obtain consistency with the CORINE land-cover data on an annual basis and that the CORINE land-cover data used were for 1990, 2000, 2006, 2012 and 2018. The values for 2019 and 2020 were extrapolated from the matrix for 2012–2018. The ERT considers that the recommendation has been fully addressed because the Party used the most recent available data, namely the 2018 CORINE land-cover map, to ensure consistency of AD.
Waste			
W.1	5.B.2 Anaerobic digestion at biogas facilities – CH_4 (W.4, 2020) (W.13, 2019) Completeness	Report CH_4 emissions from sludge transported for anaerobic treatment for biogas production under the category anaerobic digestion at biogas facilities (5.B.2) and include an explanation in the energy sector chapter of the NIR concerning the consumption of biogas on farms with anaerobic digesters for solid waste.	Resolved. CH_4 emissions from sludge transported for anaerobic treatment for biogas production were reported under category 5.B.2 anaerobic digestion at biogas facilities and an explanation concerning the consumption of biogas on farms with anaerobic digesters for solid waste was provided in the NIR under the energy sector chapter (p.93).
W.2	5.C.1 Waste incineration – CO_2, CH_4 and N_2O (W.5, 2020) (W.14, 2019) Completeness	Estimate and report emissions from waste incineration without energy recovery.	Not resolved. The ERT noted that for the 2022 submission, the Party still did not estimate and report emissions from waste incineration without energy recovery for 2004–2014. As per the recommendation of the previous ERT, the current ERT checked the AD for incinerated waste reported for Cyprus by Eurostat and noted that there were no data for waste incinerated for 2016–2020. However, data for waste incinerated without energy recovery are provided for 2004–2014. During the review week, Cyprus explained that it is currently investigating the data from the Statistical Service of Cyprus on waste incineration since it seems to have some discrepancies with the Eurostat data, with a view to validating the data to confirm that the waste incinerated through 2004–2014 was indeed without energy recovery as reported by Eurostat. The ERT estimated the emissions from waste incineration without energy recovery for those years based on Eurostat AD and noted that it increased by 0.008811–0.044474 kt CO_2 eq, or 0.0001–0.0005 per cent of the national total, which is below the significance threshold for including the issue in the list of potential

ID#	Issue/problem classification[a, b]	Recommendation made in previous review report	ERT assessment and rationale
			problems (4.44 kt CO_2 eq for Cyprus in 2020). The ERT considers that the recommendation has not yet been addressed because the Party did not include an estimation of emissions from waste incineration without energy recovery for 2004–2014.
W.3	5.D Wastewater treatment and discharge – CH_4 (W.6, 2020) (W.10, 2019) (W.9, 2017) Accuracy	Provide information in the NIR, under category-specific planned improvements, on whether any plans are in place to move to higher-tier methods as this category has been identified as key.	Not resolved. The ERT noted that the NIR does not provide any information on whether any plans are in place to move to higher-tier estimation methods for wastewater treatment and discharge (category 5.D). During the review, the Party stated that it expects to resolve this recommendation in the next submission. The ERT considers that the recommendation has not yet been addressed because this has been identified as a key category and the Party did not use the higher-tier estimation methods.
W.4	5.D.1 Domestic wastewater – CH_4 and N_2O (W.7, 2020) (W.11, 2019) (W.10, 2017) Accuracy	Account for the component of organic material and nitrogen removed as sludge, because it is reported that there are good data sources for sludge in Cyprus, and explain any recalculations for categories 5.D.1 and 3.D.1.a.2.b resulting from this change.	Not resolved. The ERT noted that there is no clear information in the NIR regarding accounting for the component of organic material and nitrogen removed as sludge or recalculations resulting from this change. During the review week, Cyprus confirmed that the component of organic material and the nitrogen removed as sludge were not accounted for in this submission and that it used the default value equal to zero. The Party informed the ERT that it plans to implement this recommendation in the next submission. Even though the default value equal to zero was used for organic material and nitrogen removed as sludge when estimating CH_4 and N_2O emissions from wastewater treatment and discharge (5.D.1), the emissions related to the use of removed sludge for agricultural purposes were estimated and included under category 3.D.1.a.2.b in the agriculture sector for the whole time series since the 2019 submission. The ERT considers that the recommendation has not yet been addressed as Cyprus has good data sources for sludge and has not yet accounted for the component of organic material and nitrogen removed as sludge. The ERT also considers that the use of the default value equal to zero for organic material and nitrogen removed as sludge does not lead to an underestimation for either category 5.D.1 or category 3.D.1.a.2.b.
KP-LULUCF			
KL.1	General (KP-LULUCF) (KL.1, 2020) (KL.1, 2019) (KL.1, 2017) (KL.1, 2016) (KL.1, 2015) KP reporting adherence	Implement the workplan to report any emissions or removals from activities under Article 3, paragraphs 3–4, of the Kyoto Protocol, and apply method 2 from the Kyoto Protocol Supplement to address information on geographical location; complete by 2018 a map of woody forest vegetation in State and private forests, with a minimum mapping unit of 0.3 ha; acquire or utilize satellite information to obtain the areas of AD for FM and the geographical	Resolved. The Party provided supplementary information on geographical location, including a new forest survey (0.1 ha and 0.3 ha minimum mapping units), indicating that every parcel of land can be identified geographically using its global positioning system coordinates, 2018 map of woody forest vegetation in State and private forests. The Party reported in its NIR (section 11.2.3, p.287) that the CORINE land-cover database was used for identification of individual land-cover changes. During the review, the Party clarified that land-use data for Cyprus were sourced from the CORINE land-cover inventory data. Five CORINE data sets covering 1990, 2000, 2006, 2012 and 2018 were included in the preparation of this NIR. The CORINE land-change maps of 1990/2000, 2000/2006, 2006/2012 and 2012/2018 were also used. The Department of Forestry provided documentation on all the woody forest

ID#	Issue/problem classification[a, b]	Recommendation made in previous review report	ERT assessment and rationale
		location; and acquire capacity-building assistance to estimate non-CO_2 emissions.	vegetation in State and private forests using values as small as 0.1 ha for rare forest types such as cypress or oak and a minimum of 0.3 ha for the common types such as Pinus brutia. The ERT considers that the recommendation has been fully addressed because the Party provided supplementary information on geographical location, including a new forest survey (0.1 ha and 0.3 ha minimum mapping units) and updated AD.
KL.2	General (KP-LULUCF) (KL.2, 2020) (KL.2, 2019) (KL.2, 2017) (KL.1, 2016) (KL.1, 2015) Transparency	Report on the progress of implementation of the workplan designed to report any emissions or removals from activities under Article 3, paragraphs 3–4, of the Kyoto Protocol.	Resolved. The Party provided information on progress on the implementation of the workplan designed to report emissions and removals from KP-LULUCF activities. The Party reported biomass burning emissions for KP-LULUCF in CRF table 4(KP–II)4 and explained in its NIR (section 11.3.1.2, p.293) that no forests are fertilized in Cyprus hence all emissions related to fertilization in forest land are reported as "NO". The ERT considers that the recommendation has been addressed.
KL.3	General (KP-LULUCF) (KL.3, 2020) (KL.3, 2019) (KL.3, 2017) (KL.2, 2016) (KL.2, 2015) Transparency	Clarify in the NIR how the losses of carbon stock calculated using the IPCC default biomass gain–loss method have been calculated and what types of loss have been considered.	Resolved. The Party clarified how the losses of carbon stock are calculated and the types of losses considered. The Party reported in its NIR (section 11.3.1.1, p.287, and section 11.3.1.6, p.294) that emissions and removals relating to KP-LULUCF activities were estimated using similar methods to those used for reporting under the Convention. During the review, the Party provided a revised NIR section 6.2.4 on methodological issues, showing how the losses of carbon stock were calculated for fires and harvesting. The Party further explained how data from wood harvesting are treated, including salvage logging and fires. The ERT considers that the recommendation has been fully addressed because the Party explained how the losses are treated in the revised NIR chapter 6 on LULUCF while referring to it in chapter 11 on KP-LULUCF.
KL.4	General (KP-LULUCF) (KL.4, 2020) (KL.4, 2019) (KL.4, 2017) (KL.3, 2016) (KL.3, 2015) Transparency	Include estimates of the background level and margin.	Resolved. The Party provided estimates of the background level and margin in CRF table 4(KP-I) B.1.3 for FM at 14.91 and 23.33 kt CO_2 eq respectively. The Party reported in its NIR (section 11.3.1.1, p.293) that it decided not to apply the natural disturbances provision for AR activities in accordance with decision 2/CMP.7. The ERT considers that the recommendation has been fully addressed.
KL.5	General (KP-LULUCF) (KL.5, 2019) (KL.5, 2017) KP reporting adherence	Enter the FM cap in the accounting table.	Resolved. The Party reported the FM cap, estimated at 1,576.63 kt CO_2 eq, in the 2020 CRF accounting table. The reported value is different from the value of 1,575.626 kt CO_2 eq given in the report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of Cyprus (FCCC/IRR/2016/CYP). During the review, the Party clarified that that this was a typographical error and provided the correct value of 1,575.626 kt CO_2 eq in the revised CRF tables submitted on 9 September 2022. The ERT considers that the recommendation has been fully addressed because the Party reported the FM cap in the CRF accounting table.

ID#	*Issue/problem classification*[a, b]	*Recommendation made in previous review report*	*ERT assessment and rationale*
KL.6	General (KP-LULUCF) – CO_2 (KL.7, 2020) Accuracy	Ensure that the areas of AR and deforestation reported in the NIR are consistent with the areas of AR and deforestation reported in the CRF tables.	Not resolved. The Party continued to report inconsistent areas of AR and deforestation between its NIR and CRF tables. In NIR tables 11.7–11.8, (pp.289–291) the Party provided information on the areas subject to AR and deforestation since 1990 that does not match the area values reported in CRF table 4(KP-1) for the same activities. For 2020, the Party reported areas subject to AR as 1.117 kha and deforestation as 0.208 kha in the NIR but as 0.42 kha and 0.014 kha respectively in the CRF tables. In addition, the ERT found that the Party had underestimated emissions by 3.69 kt CO_2 eq for 2020. However, as this is below the significance threshold for application of an adjustment in accordance with decision 22/CMP.1, annex, paragraph 80(b), in conjunction with decision 4/CMP.11 (4.44 kt CO_2 eq in 2020), this was not included in the list of potential problems and further questions raised.
KL.7	General (KP-LULUCF) – CO_2 (KL.8, 2020) KP reporting adherence	Provide information on AR, deforestation and FM in accordance with decision 2/CMP.8, annex II, paragraphs 2(g)(iii), 2(g)(iv), 2(g)(vi) and 5(e), on KP-LULUCF. Apply, as appropriate, the methodology provided in the 2006 IPCC Guidelines (vol. 4) and the Kyoto Protocol Supplement for obtaining the above-mentioned information.	Resolved. The Party provided information on FM in accordance with decision 2/CMP.8, annex II, paragraphs 2(g)(iii), 2(g)(iv), 2(g)(vi) and 5(e), on KP-LULUCF and as appropriate, the methodology provided in the 2006 IPCC Guidelines (vol. 4) and the Kyoto Protocol Supplement. In its NIR (pp.297–299) the Party provided information on AD for the specified categories (paper, wood panels and sawnwood) and indicated that reporting of the harvested wood products pool during the second commitment period is estimated using the first-order decay function with default half-lives provided in decision 2/CMP.7. The ERT considers that the recommendation has been fully addressed.
KL.8	Deforestation – CO_2 (KL.9, 2020) KP reporting adherence	Correct CRF tables 4(KP. I)A.2 and 4(KP) for the next submission and ensure consistency between the NIR and the CRF tables.	Resolved. The Party ensured consistent reporting of emissions and removals from deforestation between its NIR and CRF tables. The Party reported in NIR table 11.1 (p.283) and CRF tables 4 (KP-1)A.2 and 4(KP) emissions and removals from deforestation of 0.25 kt CO_2 eq. The ERT considers that the recommendation has been fully addressed because the Party reported the same emissions and removals in its NIR and CRF tables.
KL.9	FM – CO2 (KL.6, 2019) (KL.6, 2017) KP reporting adherence	Revise the area of forest included in the land-transition matrix in order to be consistent with that reported in CRF tables NIR-2 and 4(KP-1)B.1.	Resolved. The Party reported in NIR table 11.9 (p.293), CRF tables NIR-2 and 4(KP-1) B.1 a FM area of 157.86 kha. The ERT considers that the recommendation has been fully addressed because the Party reported the same area for FM in its NIR and CRF tables.
KL.10	FM – CO_2 (KL.10, 2020) Accuracy	Correct CRF tables 4(KP. I). B.1 and 4(KP) for the next submission and ensure consistency between the NIR and the CRF tables.	Not resolved. The Party continued to report inconsistent emissions and removals from FM between its NIR and CRF tables. In NIR table 11.1 (p.283) the Party reported emissions and removals from FM for 2020 as –141.6 kt CO_2 eq but reported –137.58 kt CO_2 eq in CRF table 4(KP) and –144.38 kt CO_2 eq in CRF table 4(KP-1) B.1. The ERT considers that the difference between emissions and removals from FM in the NIR and CRF tables is below the threshold of significance threshold for application of an adjustment in accordance with decision 22/CMP.1, annex, paragraph 80(b), in

ID#	Issue/problem classification[a, b]	Recommendation made in previous review report	ERT assessment and rationale
			conjunction with decision 4/CMP.11 (4.4 kt CO_2 eq in 2020) and therefore did not include this issue in the list of potential problems and further questions raised.
KL.11	FM – CO_2 (KL.11, 2020) Accuracy	Make a technical correction to the FMRL based on the improved methodology for FM and revised estimates.	Resolved. The Party submitted a technical correction to its FMRL during the review week. In its NIR, the Party did not report a technical correction to its FMRL in its NIR or in the CRF accounting table. During the review, the Party clarified that a technical correction was not submitted by omission. The Party resubmitted the CRF accounting table and an addendum to the NIR with a technical correction of 77.86 kt CO_2 eq. The ERT considers that the recommendation has been fully addressed because the Party made a technical correction to its FMRL in accordance with paragraph 14 of the annex to decision 2/CMP.7.

[a] References in parentheses are to the paragraph(s) and the year(s) of the previous review report(s) in which the issue or problem was raised. Issues are identified in accordance with paras. 80–83 of the UNFCCC review guidelines and classified as per para. 81 of the same guidelines. Problems are identified and classified as problems of transparency, accuracy, consistency, completeness or comparability in accordance with para. 69 of the Article 8 review guidelines in conjunction with decision 4/CMP.11.

[b] The report on the review of the 2021 annual submission of Cyprus was not available at the time of this review. Therefore, the recommendations reflected in this table are taken from the 2020 annual review report. For the same reason, 2021 is excluded from the list of review years in which issues could have been identified.

IV. Issues and problems identified in three or more successive reviews and not addressed by the Party

9. In accordance with paragraph 83 of the UNFCCC review guidelines, the ERT noted that the issues and/or problems included in table 4 have been identified in three or more successive reviews, including the review of the 2022 annual submission of Cyprus, and had not been addressed by the Party at the time of publication of this review report.

Table 4
Issues and/or problems identified in three or more successive reviews and not addressed by Cyprus

ID#	Previous recommendation for issue	Number of successive reviews issue not addressed[a]
General		
G.2	Provide relevant explanations in CRF table 9, specifically for all cases of the notation key "NE" being reported and for sources reported as "IE" (e.g. indirect emissions from agricultural soils).	6 (2013–2022)
G.5	Report in the NIR information in accordance with decision 15/CMP.1, annex, paragraphs 12–18, in conjunction with decision 3/CMP.11, including on information reported in the SEF tables; discrepancies and notification; publicly accessible registry information; and the calculation of the CPR.	3 (2019–2022)
G.11	Conduct an uncertainty analysis for LULUCF after the LULUCF reporting has been completed.	5 (2015/2016–2022)
Energy		
E.9	Correct the estimates of N_2O emissions from diesel consumption by light-duty trucks for 1990–1999.	3 (2019–2022)

ID#	*Previous recommendation for issue*	*Number of successive reviews issue not addressed*[a]
E.10	Report in the NIR on any progress achieved in improving the consistency of the time series.	5 (2015/2016–2022)
IPPU	No issues identified.	
Agriculture	No issues identified.	
LULUCF		
L.1	Report the areas converted to a different land use under the relevant land-use conversion category for 20 consecutive years before reporting them under the corresponding land remaining category.	6 (2013–2022)
L.3	Report "NO" for any category, pool and/or gas for which there is information confirming that it does not occur, and provide such information in the NIR, and report "NE" for categories, pools and/or gases for which there is no information on emissions or removals or for which net emissions or removals are negligible.	6 (2013–2022)
L.4	Report all mandatory carbon pools.	6 (2013–2020)
L.5	Revise the reporting of the area of settlements converted to forest land and ensure consistency among the areas reported in the NIR, CRF table 4.1 and CRF table 4.A.	3 (2019–2022)
L.6	Revise the reporting of land areas converted to wetlands and ensure consistency between the information reported in CRF tables 4.1 and 4.D.	3 (2019–2022)
L.7	Revise the area of settlements reported in NIR table 6.14 and ensure consistency with the total area of settlements reported in CRF table 4.E.	3 (2019–2022)
L.13	Provide the missing estimates of emissions from forest fires for land converted to forest land for 2011.	6 (2013–2022)
Waste		
W.2	Estimate and report emissions from waste incineration without energy recovery.	3 (2019–2022)
W.3	Provide information in the NIR, under category-specific planned improvements, on whether any plans are in place to move to higher-tier methods as this category has been identified as key.	4 (2017–2022)
W.4	Account for the component of organic material and nitrogen removed as sludge, because it is reported that there are good data sources for sludge in Cyprus, and explain any recalculations for categories 5.D.1 and 3.D.1.a.2.b resulting from this change.	4 (2017–2022)
KP-LULUCF	No issues identified.	

[a] Reports on the reviews of the 2018 and 2021 annual submissions of Cyprus have not yet been published. Therefore, 2018 and 2021 were not included when counting the number of successive years for this table. In addition, as the reviews of the Party's 2015 and 2016 annual submissions were conducted together, they are not considered successive reviews and 2015/2016 is counted as one year.

V. Additional findings made during the individual review of the Party's 2022 annual submission

10. Table 5 presents findings made by the ERT during the individual review of the 2022 annual submission of Cyprus that are additional to those identified in table 3.

Table 5
Additional findings made during the individual review of the 2022 annual submission of Cyprus

ID#	*Finding classification*	*Description of finding with recommendation or encouragement*	*Is finding an issue/problem?*[a]
General		No general findings additional to those included in table 3 were made by the ERT during the review.	
Energy			
E.11	1.B.2.a Oil – secondary liquid fuels CO_2 and CH_4	The Party did not report CO_2 and CH_4 emissions from distribution of secondary oil products in its NIR. Category 1.B.2.a.iii.5 in CRF table 1.B.2 is reported as "NE" for the entire time series. During the review, the Party indicated that evaporation losses from storage, filling and unloading activities and fugitive equipment leaks are the primary sources of these emissions in Cyprus; however, no AD are available to calculate these emissions, hence the use of the notation key "NE". The ERT encourages the Party to report the total amount of liquid fuels distributed in Cyprus using data directly derived from national statistics if available; otherwise, it could be set as equal to total liquid fuel production by refineries plus imports minus exports, in accordance with the 2006 IPCC Guidelines (vol. 2, chap. 4, table 4.2.7).	Not an issue/problem
IPPU		No findings for the IPPU sector additional to those included in table 3 were made by the ERT during the review.	
Agriculture		No findings for the agriculture sector additional to those included in table 3 were made by the ERT during the review.	
LULUCF			
L.15	4. General (LULUCF) – CO_2, CH_4 and N_2O	The reporting year for the inventory under review is 2020. The ERT noted that in its NIR chapter 6, the Party reported AD and emissions for the whole time series up to 2019. During the review, the Party submitted an updated NIR chapter 6. The ERT encourages Cyprus to implement adequate QA/QC procedures to ensure the submission of updated complete reports in the future.	Not an issue/problem
Waste		No findings for the waste sector additional to those included in table 3 were made by the ERT during the review.	
KP-LULUCF		No findings for KP-LULUCF additional to those included in table 3 were made by the ERT during the review.	

[a] Recommendations made by the ERT during the review are related to issues as defined in para. 81 of the UNFCCC review guidelines or problems as defined in para. 69 of the Article 8 review guidelines.

VI. Application of adjustments

11. The ERT did not identify the need to apply any adjustments for the 2022 annual submission of Cyprus.

VII. Accounting quantities for activities under Article 3, paragraph 3, and, if any, activities under Article 3, paragraph 4, of the Kyoto Protocol

12. Table I.5 presents the accounting quantities for KP-LULUCF reported by Cyprus and the final values agreed by the ERT. The final quantities of units to be issued and cancelled are presented in table I.6.

VIII. Questions of implementation

13. No questions of implementation were identified by the ERT during the individual review of the Party's 2022 annual submission.

Annex I

Overview of greenhouse gas emissions and removals and data and information on activities under Article 3, paragraphs 3–4, of the Kyoto Protocol, as submitted by Cyprus in its 2022 annual submission

1. Tables I.1–I.4 provide an overview of the total GHG emissions and removals as submitted by Cyprus.

Table I.1
Total greenhouse gas emissions and removals for Cyprus, base year–2020
(kt CO_2 eq)

	Total GHG emissions excluding indirect CO_2 emissions		*Total GHG emissions and removals including indirect CO_2 emissions*[a]		*Land-use change (Article 3.7 bis as contained in the Doha Amendment)*[b]	*KP-LULUCF (Article 3.3 of the Kyoto Protocol)*[c]	*KP-LULUCF (Article 3.4 of the Kyoto Protocol)*	
	Total including LULUCF	*Total excluding LULUCF*	*Total including LULUCF*	*Total excluding LULUCF*			*CM, GM, RV, WDR*	*FM*
FMRL								–157.00
Base year[d]	5 305.19	5 610.16	5 311.69	5 616.65	NA		NA	
1990	5 271.52	5 576.49	5 278.01	5 582.98				
1995	6 696.02	6 996.94	6 703.32	7 004.25				
2000	8 229.48	8 296.68	8 238.60	8 305.80				
2010	9 168.73	9 464.04	9 183.70	9 479.01				
2011	8 820.83	9 157.42	8 827.59	9 164.18				
2012	8 301.54	8 629.84	8 308.08	8 636.38				
2013	7 566.69	7 919.82	7 572.23	7 925.36		–1.56	NA	–142.29
2014	7 937.72	8 292.64	7 942.90	8 297.83		–5.53	NA	–143.61
2015	7 986.70	8 344.08	7 992.39	8 349.77		–5.81	NA	–142.69
2016	8 816.12	8 799.32	8 821.95	8 805.15		–5.44	NA	94.92
2017	8 636.32	8 996.82	8 643.54	9 004.04		–6.28	NA	–148.37
2018	8 509.15	8 857.80	8 515.88	8 864.53		–6.49	NA	–140.53
2019	8 551.29	8 900.12	8 558.03	8 906.86		–6.80	NA	–137.54
2020	8 522.77	8 871.57	8 529.63	8 878.44		–7.09	NA	–137.58

Note: Emissions and removals reported in the sector other (sector 6) are not included in the total GHG emissions.

[a] The Party reported indirect CO_2 emissions in CRF table 6.

[b] The value reported in this column relates to GHG emissions from conversion of forests (deforestation) in 1990 as contained in the report on the review of the Party's report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol.

[c] Activities under Article 3, para. 3, of the Kyoto Protocol, namely AR and deforestation.

[d] "Base year" refers to the base year under the Kyoto Protocol, which is 1990 for CO_2, CH_4 and N_2O and 1995 for HFCs, PFCs, SF_6 and NF_3. Cyprus has not elected any activities under Article 3, para. 4, of the Kyoto Protocol. For activities under Article 3, para. 3, of the Kyoto Protocol and FM under Article 3, para. 4, only the inventory years of the commitment period must be reported.

Table I.2
Greenhouse gas emissions and removals by gas for Cyprus, excluding land use, land-use change and forestry, 1990–2020
(kt CO_2 eq)

	CO_2[a]	*CH_4*	*N_2O*	*HFCs*	*PFCs*	*Unspecified mix of HFCs and PFCs*	*SF_6*	*NF_3*
1990	4 659.71	674.17	246.45	NO,NE	NO	NO	2.65	NO
1995	5 881.41	765.19	321.32	30.57	NO	NO	5.75	NO
2000	7 131.54	809.24	295.79	60.38	NO	NO	8.86	NO
2010	8 117.67	860.54	274.29	214.20	NO	NO	12.32	NO
2011	7 796.16	863.13	259.66	231.29	NO	NO	13.94	NO
2012	7 270.57	858.22	254.58	238.49	NO	NO	14.52	NO
2013	6 589.52	848.99	229.97	241.77	NO	NO	15.11	NO
2014	6 957.33	852.76	223.68	248.36	NO	NO	15.70	NO
2015	6 978.66	862.21	231.00	261.62	NO	NO	16.29	NO
2016	7 381.24	885.80	238.88	284.08	NO	NO	15.14	NO
2017	7 532.59	905.21	245.02	305.89	NO	NO	15.33	NO
2018	7 349.27	917.35	246.65	334.87	NO	NO	16.39	NO
2019	7 349.92	933.29	251.42	357.24	NO	NO	14.98	NO
2020	7 276.44	968.10	257.99	357.73	NO	NO	18.18	NO
Percentage change 1990–2020	**56.2**	**43.6**	**4.7**	**NA**	**NA**	**NA**	**586.1**	**NA**

Note: Emissions and removals reported in the sector other (sector 6) are not included in this table.

[a] Including indirect CO_2 emissions as reported in CRF table 6.

Table I.3
Greenhouse gas emissions and removals by sector for Cyprus, 1990–2020
(kt CO_2 eq)

	Energy	*IPPU*	*Agriculture*	*LULUCF*	*Waste*	*Other*
1990	3 976.80	732.06	478.07	–304.97	396.04	–
1995	5 133.22	844.88	586.59	–300.93	439.56	–
2000	6 381.29	887.60	556.42	–67.19	480.49	–
2010	7 565.75	840.22	532.68	–295.32	540.36	–
2011	7 268.77	832.72	518.40	–336.59	544.28	–

	Energy	*IPPU*	*Agriculture*	*LULUCF*	*Waste*	*Other*
2012	6 785.24	796.16	501.17	–328.30	553.82	–
2013	5 861.46	1 035.91	463.86	–353.13	564.14	–
2014	6 006.82	1 263.27	453.57	–354.93	574.17	–
2015	6 129.30	1 180.06	460.36	–357.39	580.05	–
2016	6 526.60	1 210.03	483.38	16.80	585.13	–
2017	6 637.69	1 275.72	497.63	–360.50	593.01	–
2018	6 526.12	1 234.61	503.79	–348.65	600.01	–
2019	6 578.59	1 203.64	517.82	–348.82	606.80	–
2020	6 416.76	1 295.21	551.87	–348.81	614.59	–
Percentage change 1990–2020	**61.4**	**76.9**	**15.4**	**14.4**	**55.2**	**NA**

Notes: (1) Cyprus did not report emissions or removals in the sector other (sector 6); the corresponding cells in the CRF tables were left blank; (2) totals include indirect CO_2 emissions reported in CRF table 6.

Table I.4

Greenhouse gas emissions and removals from activities under Article 3, paragraphs 3–4, of the Kyoto Protocol by activity, base year–2020, for Cyprus

(kt CO_2 eq)

	Article 3.7 bis as contained in the Doha Amendment[a]	*Activities under Article 3.3 of the Kyoto Protocol*		*FM and elected activities under Article 3.4 of the Kyoto Protocol*				
	Land-use change	*AR*	*Deforestation*	*FM*	*CM*	*GM*	*RV*	*WDR*
FMRL				–157.00				
Technical correction				77.86				
Base year	NA				NA	NA	NA	NA
2013		–1.79	0.23	–142.29	NA	NA	NA	NA
2014		–5.77	0.24	–143.61	NA	NA	NA	NA
2015		–6.06	0.25	–142.69	NA	NA	NA	NA
2016		–5.69	0.25	94.92	NA	NA	NA	NA
2017		–6.53	0.25	–148.37	NA	NA	NA	NA
2018		–6.74	0.25	–140.53	NA	NA	NA	NA
2019		–7.05	0.25	–137.54	NA	NA	NA	NA
2020		–7.34	0.25	–137.58	NA	NA	NA	NA
Percentage change base year–2019					**NA**	**NA**	**NA**	**NA**

Note: Values in this table include emissions from land subject to natural disturbances, if applicable.

[a] The value reported in this column relates to 1990.

2. Table I.5 provides information on the Party's accounting quantities for reporting under Article 3, paragraphs 3–4, of the Kyoto Protocol.

Table I.5
Accounting quantities for activities under Article 3, paragraph 3, and forest management and any elected activities under Article 3, paragraph 4, of the Kyoto Protocol for Cyprus
(kt CO_2 eq)

GHG source/sink activity	*Net emissions/removals*									*Accounting parameters*	*Accounting quantity*[a]
	Base year[b]	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*Total*[c]		
A.1. AR		–1.790	–5.772	–6.062	–5.691	–6.528	–6.742	–7.051	–7.343	–46.979		–46.979
Excluded emissions from natural disturbances[d]		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
Excluded subsequent removals from land subject to natural disturbances		IE	IE	IE	IE	IE	IE	IE	IE	IE		IE
A.2. Deforestation		0.234	0.242	0.251	0.251	0.251	0.251	0.251	0.251	1.980		1.980
B.1. FM										–897.697		–264.592
Net emissions/ removals		–142.289	–143.614	–142.695	94.923	–148.370	–140.534	–137.538	–137.579	–897.697		
Excluded emissions from natural disturbances[d]		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
Excluded subsequent removals from land subject to natural disturbances		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
Any debits from newly established forest		NO	NO	NO	NO	NO	NO	NO	NO	NO		NO

GHG source/sink activity	*Net emissions/removals*										*Accounting parameters*	*Accounting quantity*[a]
	Base year[b]	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*Total*[c]		
FMRL[e]											–157.000	
Technical corrections to FMRL											77.862	
FM cap											1 575.626	–264.592
B.2. CM (if elected)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
B.3. GM (if elected)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
B.4. RV (if elected)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
B.5. WDR (if elected)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA

[a] The accounting quantity is the total quantity of units to be issued or cancelled for a particular activity.

[b] Net emissions and removals from CM, GM, RV and/or WDR, if elected, in the Party's base year as established in decision 9/CP.2.

[c] Cumulative net emissions and removals for all years of the commitment period reported in the annual submission under review.

[d] The Party indicated in its report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol its intent to apply the provisions from natural disturbances to its accounting of FM at the end of the commitment period. The Party decided not to exclude emissions and subsequent removals from natural disturbances in its accounting for the 2022 annual submission.

[e] As inscribed in the appendix to the annex to decision 2/CMP.7 in kt CO_2 eq per year.

3. Table I.6 provides an overview of key relevant data from Cyprus's reporting under Article 3, paragraphs 3–4, of the Kyoto Protocol.

Table I.6
Key data for Cyprus under Article 3, paragraphs 3–4, of the Kyoto Protocol from its 2022 annual submission

Parameter	*Data*
Periodicity of accounting	(a) AR: commitment period accounting (b) Deforestation: commitment period accounting (c) FM: commitment period accounting (d) CM: not elected (e) GM: not elected (f) RV: not elected (g) WDR: not elected
Elected activities under Article 3, paragraph 4, of the Kyoto Protocol	None
Election of application of provisions for natural disturbances[a]	Yes, for FM
3.5% of total base-year GHG emissions, excluding LULUCF	196,953 kt CO_2 eq (1,575.626 kt CO_2 eq for the duration of the commitment period)
Cancellation of assigned amount units, certified emission reductions and emission reduction units and/or issuance of emission reduction units in the national registry for:	
1. AR	Issue 46,979 RMUs
2. Deforestation	Cancel 1,980 units
3. FM	Issue 264,592 RMUs

Note: Values in this table reflect the accounting quantities for activities under Article 3, para. 3, and FM and any elected activities under Article 3, para. 4, of the Kyoto Protocol as reported in table I.5.

[a] The Party decided not to exclude emissions and subsequent removals from natural disturbances in its accounting for the 2022 annual submission.

Annex II

Information to be included in the compilation and accounting database

Tables II.1–II.8 include the information to be included in the compilation and accounting database for Cyprus. Data shown are from the Party's annual submission, including the latest revised estimates submitted, adjustments (if applicable) and the final data to be included in the compilation and accounting database.

Table II.1
Information to be included in the compilation and accounting database for 2020, including on the commitment period reserve, for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
CPR	–	42 705 115		42 705 115
Annex A emissions				
CO_2	7 276 442	–	–	7 276 442
CH_4	968 103	–	–	968 103
N_2O	257 986	–	–	257 986
HFCs	357 728	–	–	357 728
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	18 179	–	–	18 179
NF_3	NO	–	–	NO
Total Annex A sources[a]	**8 878 439**	–	**–**	**8 878 439**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–7 343	–	–	–7 343
Deforestation	251	–	–	251
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	–137 579	–	–	–137 579

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.2
Information to be included in the compilation and accounting database for 2019 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	7 349 917	–	–	7 349 917
CH_4	933 286	–	–	933 286
N_2O	251 425	–	–	251 425
HFCs	357 244	–	–	357 244
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	14 985	–	–	14 985
NF_3	NO	–	–	NO
Total Annex A sources[a]	**8 906 857**	–	**–**	**8 906 857**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–7 051	–	–	–7 051
Deforestation	251	–	–	251
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				

	Original submission	*Revised submission*	*Adjustment*	*Final value*
FM	–137.538	–	–	–137.538

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.3
Information to be included in the compilation and accounting database for 2018 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	7 349 275	–	–	7 349 275
CH_4	917 352	–	–	917 352
N_2O	246 647	–	–	246 647
HFCs	334 866	–	–	334 866
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	16 391	–	–	16 391
NF_3	NO	–	–	NO
Total Annex A sources[a]	**8 864 531**	–	**–**	**8 864 531**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–6 742	–	–	–6 742
Deforestation	251	–	–	251
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	–140 534	–	–	–140 534

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.4
Information to be included in the compilation and accounting database for 2017 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	7 532 588	–	–	7 532 588
CH_4	905 207	–	–	905 207
N_2O	245 023	–	–	245 023
HFCs	305 892	–	–	305 892
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	15 333	–	–	15 333
NF_3	NO	–	–	NO
Total Annex A sources[a]	**9 004 043**	–	**–**	**9 004 043**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–6 528	–	–	–6 528
Deforestation	251	–	–	251
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	–148 370	–	–	–148 370

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.5
Information to be included in the compilation and accounting database for 2016 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	7 381 245	–	–	7 381 245
CH_4	885 801	–	–	885 801
N_2O	238 883	–	–	238 883
HFCs	284 077	–	–	284 077
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	15 141	–	–	15 141
NF_3	NO	–	–	NO
Total Annex A sources[a]	**8 805 146**	–	**–**	**8 805 146**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–5 691	–	–	–5 691
Deforestation	251	–	–	251
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	94 923	–	–	94 923

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.6
Information to be included in the compilation and accounting database for 2015 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	6 978 655	–	–	6 978 655
CH_4	862 210	–	–	862 210
N_2O	230 995	–	–	230 995
HFCs	261 621	–	–	261 621
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	16 292	–	–	16 292
NF_3	NO	–	–	NO
Total Annex A sources[a]	**8 349 773**	–	**–**	**8 349 773**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–6 062	–	–	–6 062
Deforestation	251	–	–	251
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	–142 695	–	–	–142 695

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.7
Information to be included in the compilation and accounting database for 2014 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	6 957 328	–	–	6 957 328
CH_4	852 756	–	–	852 756
N_2O	223 682	–	–	223 682
HFCs	248 359	–	–	248 359

	Original submission	*Revised submission*	*Adjustment*	*Final value*
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	15 703	–	–	15 703
NF_3	NO	–	–	NO
Total Annex A sources[a]	**8 297 828**	–	**–**	**8 297 828**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–5 772	–	–	–5 772
Deforestation	242	–	–	242
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	–143 614	–	–	–143 614

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Table II.8
Information to be included in the compilation and accounting database for 2013 for Cyprus
(t CO_2 eq)

	Original submission	*Revised submission*	*Adjustment*	*Final value*
Annex A emissions				
CO_2	6 589 519	–	–	6 589 519
CH_4	848 989	–	–	848 989
N_2O	229 972	–	–	229 972
HFCs	241 769	–	–	241 769
PFCs	NO	–	–	NO
Unspecified mix of HFCs and PFCs	NO	–	–	NO
SF_6	15 114	–	–	15 114
NF_3	NO	–	–	NO
Total Annex A sources[a]	**7 925 363**	–	**–**	**7 925 363**
Activities under Article 3, paragraph 3, of the Kyoto Protocol				
AR	–1 790	–	–	–1 790
Deforestation	234	–	–	234
FM and elected activities under Article 3, paragraph 4, of the Kyoto Protocol				
FM	–142 289	–	–	–142 289

[a] The sum of the values for the individual gases and groups of gases may not match the total owing to rounding.

Annex III

Additional information to support findings in table 2

A. Missing categories that may affect completeness

1. The categories for which estimation methods are included in the 2006 IPCC Guidelines that were reported as "NE" or for which the ERT otherwise determined that there may be an issue with the completeness of the reporting in the Party's inventory are the following:

(a) 2.B.5 carbide production (CO_2) (see ID# I.5 in table 3 above);

(b) 4 general (LULUCF) (CO_2, CH_4 and N_2O) (see ID# L.4 in table 3 above);

(c) 4(V) biomass burning – land converted to forest land (CO_2, CH_4 and N_2O) (see ID# L.13 in table 3 above);

(d) 5.C.1 waste incineration (CO_2, CH_4 and N_2O) (see ID# W.2 in table 3 above);

(e) 5.D.1 domestic wastewater (CH_4 and N_2O) (see ID# W.4 in table 3 above).

B. Recommendation for an in-country review: list of issues

2. The ERT recommends that the next review for Cyprus be conducted as an in-country review. The ERT believes that an in-country review would allow more efficient assistance to Cyprus in resolving the outstanding issues with the GHG inventory given the limited capacity of the Party.

3. In accordance with decision 13/CP.20, annex, paragraph 64, the ERT has set out below a list of questions and issues additional to those identified in tables 3 and 5 that are to be addressed during the in-country review. Key areas that the next ERT conducting the in-country review should consider are:

(a) The ERT notes that review of the reporting for the LULUCF sector resulted in a large number of issues for Cyprus. The in-country review should address issues related to engaging LULUCF experts from the research community in the preparation of the GHG inventory;

(b) The ERT also notes that several issues, in particular those related to the LULUCF sector, have not been resolved by Cyprus for three years or longer and reflect that the functions pertaining to national arrangements are not fully functional. The in-country review should address issues related to increasing resources for the preparation of the GHG inventory.

Annex IV

Reference documents

A. Reports of the Intergovernmental Panel on Climate Change

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. 2014. *2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol*. T Hiraishi, T Krug, K Tanabe, et al. (eds.). Hayama, Japan: Institute for Global Environmental Strategies. Available at https://www.ipcc.ch/publication/2013-revised-supplementary-methods-and-good-practice-guidance-arising-from-the-kyoto-protocol/.

IPCC. 2014. *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. T Hiraishi, T Krug, K Tanabe, et al. (eds.). Geneva: IPCC. Available at https://www.ipcc.ch/publication/2013-supplement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories-wetlands/.

B. UNFCCC documents

Annual review reports

Reports on the individual reviews of the 2013, 2015, 2016, 2017, 2019 and 2020 annual submissions of Cyprus, contained in documents FCCC/ARR/2013/CYP, FCCC/ARR/2015/CYP, FCCC/ARR/2016/CYP, FCCC/ARR/2017/CYP, FCCC/ARR/2019/CYP and FCCC/ARR/2020/CYP respectively.

Other

Aggregate information on greenhouse gas emissions by sources and removals by sinks for Parties included in Annex I to the Convention. Note by the secretariat. Available at https://unfccc.int/sites/default/files/resource/AGI_2022_Final.pdf.

Annual status report for Cyprus for 2022. Available at https://unfccc.int/sites/default/files/resource/asr2022_CYP.pdf.

C. Other documents used during the review

Responses to questions during the review were received from Nicoletta Kythreotou (Department of Environment of the Ministry of Agriculture, Rural Development and Environment), including additional material on the methodology and assumptions used.