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Report on the technical expert review of the first biennial transparency report of Kazakhstan

Summary

This report presents the results of the technical expert review of the first biennial transparency report of Kazakhstan, conducted by a technical expert review team in accordance with the modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement. The review took place from 31 March to 4 April 2025 in Astana.

Abbreviations and acronyms

2006 IPCC Guidelines	*2006 IPCC Guidelines for National Greenhouse Gas Inventories*
A6.4ER	emission reduction under Article 6, paragraph 4, of the Paris Agreement
AD	activity data
BTR	biennial transparency report
CER	certified emission reduction
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
CRT	common reporting table
CTF	common tabular format
GHG	greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
LULUCF	land use, land-use change and forestry
MPGs	modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement
NA	not applicable
NDC	nationally determined contribution
NE	not estimated
NID	national inventory document
PaMs	policies and measures
QA/QC	quality assurance/quality control
TERT	technical expert review team
WAM	with additional measures
WM	with measures
WOM	without measures

I. Introduction and summary

A. Introduction

1. This report covers the technical expert review of the BTR1 of Kazakhstan. The review was organized by the secretariat and conducted by the TERT in accordance with the MPGs,[1] particularly chapter VII thereof.

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

3. The review was conducted as an in-country review from 31 March to 4 April 2025 in Astana by the following team of nominated experts from the UNFCCC roster of experts: Juliana Bempah (Ghana), Yauheniya Bertash (Belarus), Wenceslao Carrera Doral (Cuba), Olia Glade (New Zealand), Baasansuren Jamsranjav (Mongolia), Katarina Yaramenka (Sweden) and Lyon Young (Australia). Olia Glade and Baasansuren Jamsranjav were the lead reviewers. The review was coordinated by Verónica Colerio (secretariat).

B. Scope

4. The TERT conducted a technical expert review of the information reported in the BTR1 of Kazakhstan as per the scope of the review defined in paragraph 146 of the MPGs, consisting of:

(a) Review of the consistency of the information submitted by the Party under Article 13, paragraphs 7 and 9, of the Paris Agreement with the MPGs (see chap. II.A below);

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

(c) Identification of areas of improvement[3] for the Party related to implementation of Article 13 of the Paris Agreement (see chap. II.D below);

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

C. Summary

5. Kazakhstan submitted its BTR1 on 9 November 2024, before the deadline of 31 December 2024 mandated in decision 18/CMA.1. Kazakhstan submitted its NID as a stand-alone document on 10 December 2024, before the deadline of 31 December 2024. Kazakhstan also submitted its CRTs on 17 December 2024, before the deadline of 31 December 2024, and CTF tables on 10 January 2025.[4]

6. A list of the areas of improvement identified on the basis of the review of the consistency of the reported information with the MPGs can be found in the assessment tables.[5]

[1] Decision 18/CMA.1, annex.
[2] As per para. 162(e) of the MPGs.
[3] As referred to in paras. 7, 8, 146(d) and 162(d) of the MPGs.
[4] The technical expert review was conducted on the basis of the versions of the BTR, NID, CTF tables and CRTs submitted on 17 January 2025, 30 December 2024, 10 January 2025 and 17 December 2024 respectively.
[5] Contained in document FCCC/ETF/TERR.1/2025/KAZ/Add.1, available at https://unfccc.int/first-biennial-transparency-reports.

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

7. Kazakhstan reported information on support needed and received for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building. The Party reported on support needed and received for preparing reports pursuant to Article 13 of the Paris Agreement and addressing the areas of improvement identified by the TERT. Support is needed primarily for enhancing the following:

(a) The measurement, reporting and verification system for mitigation actions;

(b) The efficiency of information management of emissions;

(c) Expert capacity for data collection, processing and analysis, fostering cross-border cooperation on data exchange and experience-sharing;

(d) The capacity of public and private sector organizations to use climate information in their decision-making;

(e) The capacity of communities to understand and use climate information;

(f) The quality and accuracy of reporting under the UNFCCC;

(g) The effectiveness of climate programmes and projects.

8. Support has been received for enhancing transparency in reporting on emissions and climate action and meeting international commitments on climate reporting. Table 1 summarizes the information that Kazakhstan reported in CTF tables III.12–III.13 on support needed and received. The TERT noted that the above-mentioned information reported by the Party is not subject to review as per the scope of the review defined in paragraph 146 of the MPGs.

Table 1
Summary of support needed and received by Kazakhstan for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building

Status of support	*Amount (USD million)*
Support needed from 2025 to 2030	12.50
Support received from 2019 to 2024	1.84

Sources: Kazakhstan's BTR1 and CTF tables III.12–III.13.

II. Technical expert review[6]

A. Review of the consistency of the submitted information with the modalities, procedures and guidelines[7]

1. National inventory report[8]

9. The TERT assessed the information reported in the BTR1 of Kazakhstan and identified areas of improvement relating to consistency with the MPGs, which are described in tables 2–7 of the assessment tables referred to in paragraph 6 above and summarized in table 2.

[6] As per para. 187 of the MPGs.
[7] As per para. 146(a) of the MPGs.
[8] As per para. 150(a) of the MPGs.

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

Element	*Elements of information to be reported*	*Summary of information reported*	*ID#s for the areas of improvement identified*[a]
Submission type (para. 12 of the MPGs)	Has the national inventory report been submitted as a stand-alone document?	Yes	No areas of improvement were identified
Time series (paras. 57–58 of the MPGs)	What years have been reported and is the time series in accordance with the MPGs?	1990–2022, yes	No areas of improvement were identified
Metrics (para. 37 of the MPGs)	Has the Party used the 100-year global warming potential values from the IPCC Fifth Assessment Report?	Yes	No areas of improvement were identified
	Has the Party used other metrics?	No	No areas of improvement were identified
Gases (paras. 47–49 and 51 of the MPGs)	Which gases have been reported?	CO_2, hydrofluorocarbons, methane, nitrogen trifluoride, nitrous oxide, perfluorocarbons, sulfur hexafluoride	No areas of improvement were identified
Indirect emissions (para. 52 of the MPGs)	Has the Party reported indirect CO_2 emissions and national totals with and without indirect CO_2?	No	No areas of improvement were identified
	Has the Party reported indirect nitrous oxide emissions from sources other than those in the agriculture and LULUCF sectors as a memo item?	No	No areas of improvement were identified
National circumstances and institutional arrangements (paras. 18–19 of the MPGs)	Has the Party reported information on the functions related to inventory planning, preparation and management?	Partly	2.G.1, 4.I.8
Methodologies, parameters and data (paras. 20–24 of the MPGs)	Has the Party used the 2006 IPCC Guidelines?	Yes	3.E.7, 4.I.3, 4.I.5, 4.I.6, 4.I.7, 4.I.8, 5.A.1, 5.A.5, 6.L.7, 7.W.5, 7.W.8, 7.W.11, 7.W.12
	Has the Party used other IPCC methodological guidance?	No	No areas of improvement were identified
Key category analysis (paras. 25 and 41–42 of the MPGs)	Has the Party reported a key category analysis?	Yes, a key category analysis was performed using approach 1 and a 95 per cent threshold for level and trend assessment for the starting year (1990) and	2.G.5

Element	*Elements of information to be reported*	*Summary of information reported*	*ID#s for the areas of improvement identified*[a]
		the latest reporting year (2022) and with and without LULUCF	
Time-series consistency and recalculations (paras. 26–28 and 43 of the MPGs)	Has the Party reported a consistent time series?	Partly	3.E.4, 4.I.8, 4.I.11, 6.L.3, 6.L.5
	Has the Party provided justification and explanatory information for recalculations?	Partly	2.G.6, 6.L.4, 7.W.6
Uncertainty assessment (paras. 29 and 44 of the MPGs)	Has the Party reported the results of the uncertainty analysis and the methods used, underlying assumptions and trends?	Yes, including level and trend uncertainty, reported using approach 1 for the starting year (1990) and the latest reporting year (2022)	No areas of improvement were identified
QA/QC plan and procedures (paras. 34–36 and 46 of the MPGs)	Has the Party elaborated information on an inventory QA/QC plan, including information on the inventory agency responsible for implementing QA/QC, and current and future QA/QC procedures?	Yes, including information on the inventory agency responsible for implementing QA/QC, an inventory QA/QC plan, general QC procedures, and category-specific QC for key categories and for individual categories for which significant methodological changes and/or data revisions have occurred	2.G.2, 3.E.1, 3.E.2, 4.I.2, 5.A.4, 5.A.6
Assessment of completeness (paras. 30–33, 45, 47 and 50 of the MPGs)	Have any areas of improvement for lack of completeness been identified for the following sectors?		
	Energy	Yes	3.E.4, 3.E.5
	IPPU	Yes	4.I.1, 4.I.2, 4.I.8, 4.I.10
	Agriculture	Yes	5.A.2
	LULUCF	Yes	6.L.2
	Waste	Yes	7.W.3, 7.W.8
Threshold for reporting significant categories (para. 32 of the MPGs)	For categories reported as “NE” owing to insignificance, has information been reported showing that the likely level of emissions is below the threshold of significance?	Partly	2.G.3
	Has information been reported on categories, gases, methodologies (including the rationale for selecting	Partly	2.G.4, 3.E.6, 3.E.8, 5.A.3, 6.L.1, 6.L.3, 6.L.6

Element	*Elements of information to be reported*	*Summary of information reported*	*ID#s for the areas of improvement identified*[a]
Methodologies, emission factors, parameters and AD (paras. 39–40 and 53–56 of the MPGs)	them), emission factors and AD at a disaggregated level for the following sectors?		
	Energy		
	Has information been reported on international aviation and marine bunker fuel emissions as two separate entries and such emissions distinctly reported from national totals?	Yes	No areas of improvement were identified
	Has information been reported indicating how feedstocks and non-energy use of fuels have been accounted for in the inventory, under the energy or IPPU sector?	Partly	3.E.3
	IPPU	Partly	4.I.3, 4.I.4, 4.I.5, 4.I.6, 4.I.7, 4.I.8, 4.I.9
	Agriculture	Partly	5.A.3
	LULUCF	Partly	6.L.1
	Waste	Partly	7.W.1, 7.W.2, 7.W.4, 7.W.7, 7.W.9, 7.W.10

[a] See document FCCC/ETF/TERR.1/2025/KAZ/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

2. Information necessary to track progress in implementing and achieving the nationally determined contribution[9]

10. The TERT assessed the information reported in the BTR1 of Kazakhstan and identified areas of improvement relating to consistency with the MPGs, which are described in tables 9–11 and 13 of the assessment tables referred to in paragraph 6 above and summarized in table 3.

Table 3
Information reported in Kazakhstan's submission

Topic	*ID#s for the area(s) of improvement identified*[a]
National circumstances and institutional arrangements (paras. 59–63 of the MPGs)	No areas of improvement were identified
Description of the NDC under Article 4 of the Paris Agreement, including updates (para. 64 of the MPGs)	9.1
Information necessary to track progress in implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 65–79 of the MPGs)	10.1
Mitigation PaMs, actions and plans related to implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 80–90 of the MPGs)	11.1, 11.2
Summary of GHG emissions and removals (para. 91 of the MPGs)	No areas of improvement were identified
Projections of GHG emissions and removals (paras. 92–102 of the MPGs)	13.1, 13.2

[a] See document FCCC/ETF/TERR.1/2025/KAZ/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

3. Financial, technology development and transfer, and capacity-building support provided[10]

11. According to chapter V of the MPGs, developed country Parties shall provide information on financial, technology development and transfer, and capacity-building support needed and received pursuant to Article 13, paragraph 9, of the Paris Agreement, and other Parties that provide support should provide such information and, in doing so, are encouraged to use the MPGs in that chapter.[11] Kazakhstan was not subject to the reporting obligations for information on financial, technology development and transfer, and capacity-building support provided under Articles 9–11 of the Paris Agreement, as it did not identify itself as a developed country Party under the Paris Agreement and did not provide information on financial, technology development and transfer, or capacity-building support in its BTR1.

B. Consideration of the Party's implementation and achievement of its nationally determined contribution[12]

12. In considering Kazakhstan's progress in implementing and achieving its NDC, the TERT noted that the NDC[13] is a commitment to reduce total GHG emissions by 15 per cent by the end of 2030 compared with the 1990 level. Its single-year economy-wide absolute emission reduction target covers all IPCC sectors (including all LULUCF pools) and six

[9] As per para. 150(b) of the MPGs.
[10] As per para. 150(c) of the MPGs.
[11] As per para. 118 of the MPGs.
[12] As per para. 146(b) of the MPGs.
[13] The consideration of the Party's implementation and achievement of its NDC is in the context of the NDC submitted by Kazakhstan on 27 June 2023.

gases. The Party also has a conditional target of reducing total GHG emissions by 25 per cent by the end of 2030 compared with the 1990 level. This target is conditional on the following being provided to Kazakhstan: substantial additional investments from international sources including substantial support on a grant basis, access to an international mechanism for technology transfer, and co-financing for participation in international research projects in the area of low-carbon technologies and initiatives with a view to increasing national research capacity.

13. The indicator that Kazakhstan selected to track progress in implementing and achieving its NDC is described in table 4.

Table 4
Description of the indicator selected by Kazakhstan to track progress in implementing and achieving its nationally determined contribution

NDC target	*Indicator*	*Description*
Reduction in total GHG emissions by 15 per cent by the end of 2030 compared with the 1990 level	Total annual net GHG emissions	Total annual net GHG emissions consistent with the scope and coverage of the NDC, expressed in CO_2 eq. Its single-year economy-wide absolute emission reduction target covers all IPCC sectors (including all LULUCF pools) and six gases

Sources: Kazakhstan's BTR1 and CTF tables 1–3.

14. The TERT noted that the contribution of LULUCF to achieving the NDC is included in the Party's base-year level and target-year level and that Kazakhstan did not use ITMOs, A6.4ERs or CERs from cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement and the mechanism established by Article 6, paragraph 4, of the Paris Agreement towards the achievement of its NDC. Kazakhstan plans to achieve its unconditional target of an economy-wide emission reduction using domestic measures; however, it is keeping open the possibility of engaging in Article 6 mechanisms under the Paris Agreement and in other international mechanisms, including by linking its national emissions trading system to international registries.

15. Table 5 summarizes information on progress in implementing the NDC based on total annual net GHG emissions taking into account the type of Kazakhstan's NDC target, including quantitative values for the base year, implementation period, including the most recent year available, and target year.

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

	GHG emissions excluding LULUCF	*Contribution of LULUCF, as applicable*	*ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable*	*Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable*
NDC base year (1990)	385 736.50			
2021	328 422.27	IE[b]	NA	328 422.27
2022	352 973.03	IE[b]	NA	352 973.03
Target level (2030)[a]				327 876.03

Sources: Kazakhstan's BTR1 and CTF table 4.
[a] Target level corresponds to an unconditional NDC target.
[b] LULUCF is included in the total net emissions.

16. According to the most recent information on total annual net GHG emissions provided in CTF table 4, in 2022 Kazakhstan's total annual net GHG emissions were 352,973.03 kt CO_2 eq. The indicator is 8.5 per cent (32,763.48 kt CO_2 eq) below the emission level corresponding to the base-year level and 7.7 per cent (25,097.00 kt CO_2 eq) above the emission level corresponding to the conditional target level in 2030.

17. Kazakhstan reported information on the actions and PaMs that support the implementation and achievement of its NDC. Table 6 provides a summary of the reported information on the key PaMs of Kazakhstan.

Table 6
Summary of information on key policies and measures reported by Kazakhstan

Sector	*Key PaMs*	*Estimate of mitigation impact in 2030 (kt CO_2 eq)*
Energy	Increasing the share of renewable energy sources in electricity generation	27 682.08
	Constructing a nuclear power plant	12 939.07
	Increasing the share of natural gas in electricity generation	10 034.37
	Supplying households in the Astana, Akmola and Karaganda regions with natural gas	6 017.94
Transport	Developing the public transportation system (e.g. Astana E-Mobility project)	NE
IPPU	Developing a set of measures for implementing requirements of the Environmental Code on best available techniques for producing cement, lime and inorganic chemicals	1 117.36
	Supporting and subsidizing the collection of scrap metal and glass (circular economy)	370.00
	Banning the export of scrap and waste ferrous and non-ferrous metals	390.00
	Industrial Development Fund	NE
Agriculture	Supporting livestock breeding	180.00
	Promoting rational approaches to the use of cultivated land	180.00
LULUCF	Implementing forestry carbon offset projects	50.00
	Preventing land degradation and desertification	30.00
	Conducting afforestation (2 billion trees)	1 000.00
	Promoting the rational use of arable land	180.00
Waste	Utilizing a preferential project financing mechanism (long-term lease financing) for waste management projects and implementing requirements of the Environmental Code: for landfill operators to reduce methane emissions and use national standards for leachate and landfill gas systems; for mandatory separate collection, recycling and disposal of waste; and for a ban on the disposal of paper, plastic and food waste	239.54
	Introducing, as part of the Environmental Code, tax breaks and subsidies for enterprises engaged in waste processing and disposal	236.58
	Promoting the automated information system EcoQolday	6.61

Sources: Kazakhstan's BTR1 and CTF table 5.

18. The TERT noted that Kazakhstan reported 19 PaMs considered key to achieving its NDC, all of which have been approved by the Government and are reflected in the national legal framework. For 16 of the PaMs, the Party reported expected GHG emission reductions by 2030.

19. The TERT noted that PaMs have contributed to GHG emission reductions in the agriculture sector, which is the second largest source of GHG emissions in Kazakhstan. In recent years, emissions from the agriculture sector have significantly decreased compared with the base year. In 2022, emissions in this sector were 21 per cent lower than the 1990

level and 14.5 per cent lower than in 2021. The TERT also noted that the LULUCF sector was a net sink in 1990 but has since become a net source of GHG emissions. The TERT further noted, however, that PaMs have begun to have an effect on GHG emissions in this sector, resulting in an 11.9 per cent reduction in emissions in 2022 compared with 2021. This reduction was due to positive developments in land management practices.

20. The TERT noted significant increases in GHG emissions over the time series for the IPPU and waste sectors. GHG emissions in the IPPU sector increased by 18.8 per cent in 2022 compared with 1990, reflecting the long-term growth of industry since 2000. The TERT also noted an increase of 0.5 per cent in GHG emissions for this sector in 2022 compared with 2021, although it further noted a slower rate of growth in emissions since 2020. The waste sector showed a similar trend. In 2022, emissions in this sector increased by 74.2 per cent compared with 1990 and by 1.0 per cent in 2022 compared with 2021, indicating that population growth, lifestyle changes and higher volumes of waste counteracted the effects of mitigation PaMs during this period.

21. The TERT noted that the energy sector remained the largest source of GHG emissions in Kazakhstan, accounting for 79.9 per cent of total emissions in 2022. The TERT also noted that, while GHG emissions in this sector decreased by 12.5 per cent in 2022 compared with 1990, they increased by 12.1 per cent in 2022 compared with 2021, indicating that factors such as economic growth, population growth and urbanization counteracted the effects of mitigation PaMs during this period.

22. In its BTR, the Party pointed to the key elements of its national circumstances that affect its GHG emissions. One of those elements is that Kazakhstan's economy is among the most energy intensive in the world, influenced by the country's cold climate, low population density and energy-intensive industries. Another key element is population growth: according to information provided by Kazakhstan, if the current trend continues, the population in the northern regions of the country will decrease by 0.9 million, whereas the number of people living in the southern regions will increase by 5.3 million. At the same time, the urban population is growing, driving an increase in energy demand. The dominant role of coal in Kazakhstan's heat and power generation, coupled with the widespread use of coal by households, remains a key driver of the country's coal production. Despite efforts to expand household and regional gas supply and convert some urban combined heat and power plants from coal to gas, both coal production and domestic consumption have shown a gradual upward trend. Furthermore, Kazakhstan has rich reserves of a wide variety of minerals, both fuels and raw materials, and extractive sectors are among the most attractive for investments and may substantially increase energy demand.

23. Kazakhstan reported projections for 2030–2040 under the WM scenario.[14] The WM scenario reported by the Party includes PaMs implemented and adopted until 2022. In addition to the WM scenario, Kazakhstan reported the WAM and WOM scenarios. The projected emission levels are presented in table 7. The TERT noted that information on GHG emission projections was not used in considering Kazakhstan's progress in implementing its NDC.

Table 7
Summary of greenhouse gas emission projections for Kazakhstan

	GHG emissions (kt CO_2 eq/year)	*Change in relation to 2022 level (%)*	*Change in relation to 2020 level (%)*
Inventory data 2020	375 420.39	6.36	NA
Inventory data 2022	352 973.03	NA	–5.98
WOM projections for 2030	437 847.92	24.05	16.63
WM projections for 2030	382 780.21	8.44	1.96
WAM projections for 2030	322 687.00	–8.58	–14.05
WOM projections for 2040	522 974.39	48.16	39.30

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

	GHG emissions (kt CO_2 eq/year)	*Change in relation to 2022 level (%)*	*Change in relation to 2020 level (%)*
WM projections for 2040	407 264.40	15.38	8.48
WAM projections for 2040	288 171.94	–18.36	–23.24

Sources: Kazakhstan's BTR1 and CTF tables 6–9.
Note: The projections are for GHG emissions with LULUCF and excluding indirect CO_2 emissions.

24. During the review, Kazakhstan clarified that the PaMs included in CTF table 5 form the basis of the WM scenario projections. Emission projections under this scenario indicate that achieving the target of a 15 per cent reduction in emissions by 2030 compared with the base-year level may not be possible. Consequently, additional measures may be required to achieve the target. This is particularly evident in the energy sector, given its large share of total emissions. The only sector that shows high emission reduction potential is LULUCF. The TERT notes that there are not yet enough data to sufficiently assess the Party's progress in implementing the NDC, as it is early in the implementation period (2021–2030).

C. Consideration of the Party's support provided[15]

25. Kazakhstan was not subject to the reporting obligations for information on financial, technology development and transfer, and capacity-building support provided under Articles 9–11 of the Paris Agreement, as it did not identify itself as a developed country Party under the Paris Agreement and did not provide information on financial, technology development and transfer, or capacity-building support in its BTR1.

D. Identification of areas of improvement[16]

26. During the technical expert review, the TERT identified areas of improvement in relation to Kazakhstan's implementation of Article 13 of the Paris Agreement, which are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 6 above.

E. Assistance in identifying capacity-building needs[17]

27. The TERT, in consultation with Kazakhstan, identified the following prioritized needs for capacity-building to facilitate the Party's continuous improvement in reporting:[18]

(a) Strengthening institutional arrangements to enable the efficient and timely provision of data that are appropriate in both content and format for the national GHG inventory;

(b) Strengthening QC procedures to ensure that information in the NID and the CRTs, as well as between internal documentation and the CRTs, is consistent and to ensure adherence of that information to both IPCC good practices for data reporting and the MPG reporting requirements;

(c) Improving the analysis of time-series consistency by fuel type in the national energy balance to improve the accuracy of data collected that support the estimation of energy sector emissions using the reference and sectoral approaches;

(d) Enhancing technical capacity relating to the methodological aspects of estimating CO_2 emissions from integrated iron and steel production facilities, including allocating emissions as either energy-related or process-related, compiling carbon mass

[15] As per para. 146(c) of the MPGs.
[16] As per para. 146(d) of the MPGs.
[17] As per para. 146(e) of the MPGs.
[18] For a complete list of the capacity-building needs identified by the TERT in consultation with the Party, see table 15 in document FCCC/ETF/TERR.1/2025/KAZ/Add.1.

balances and accurately accounting for emissions from metallurgical gases (coke oven gas and blast furnace gas) transferred between processes;

(e) Enhancing technical capacity for collecting AD and applying relevant methodologies in line with the 2006 IPCC Guidelines;

(f) Enhancing the institutional arrangements for developing emission projections to improve the accuracy of projections; ensuring the consistent application of scenario definitions; and including industrial waste in projections for the waste sector.

28. Kazakhstan also identified the capacity-building support needs in its BTR1 (chap. IV).

III. Conclusions and recommendations

29. The TERT conducted a technical expert review of the information reported in the BTR1, NID, CRTs and CTF tables of Kazakhstan in accordance with the MPGs.

30. The areas of improvement identified by the TERT on the basis of the review of the consistency of the information reported by Kazakhstan with the MPGs are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 6 above.

31. Emission projections under the WM scenario indicate that achieving the target of a 15 per cent reduction in emissions by 2030 compared with the base-year level may not be possible. Therefore, additional measures may be required to achieve the target. The TERT notes that there are not yet enough data to sufficiently assess the Party's progress in implementing the NDC, as it is early in the implementation period (2021–2030).

32. The TERT notes that, in 2021–2022, PaMs, actions and plans contributed to GHG emission reductions in the agriculture sector and began to have an effect in the LULUCF sector. GHG emissions in the IPPU and waste sectors slightly increased while emissions in the energy sector increased significantly, indicating that economic growth, population growth and urbanization outpaced the effects of mitigation PaMs in the short term.

33. Kazakhstan was not subject to the reporting obligations for information on financial, technology development and transfer, and capacity-building support provided under Articles 9–11 of the Paris Agreement, as it did not identify itself as a developed country Party under the Paris Agreement and did not provide information on financial, technology development and transfer, or capacity-building support in its BTR1.

34. Regarding the implementation of Article 13 of the Paris Agreement and transparency-related activities, Kazakhstan required support primarily for improving the monitoring, reporting and verification system, improving data collection and enhancing the transparency of reporting. The amount of support needed in 2025–2030 totalled USD 12.5 million, whereas support received in 2019–2024 through various channels totalled USD 1.84 million.

Annex

Documents and information used during the review

A. Reference documents

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

BTR1 CTF tables of Kazakhstan. Available at https://unfccc.int/first-biennial-transparency-reports.

CRTs of Kazakhstan. Available at https://unfccc.int/first-biennial-transparency-reports.

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B. Additional information provided by the Party

Responses to questions during the review were received from Saule Sabiyeva, Gulmira Sergazina, Shattyk Tastemirova and Aiman Yessekina (Ministry of Ecology and Natural Resources).