Session 2: Country Progress Updates – Status, Lessons learned, Challenges and Support Needed for preparing NDC 3.0 and BTR1

THE 7th GREENHOUSE GAS INVENTORY SYSTEM TRAINING WORKSHOP

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NDC3.0: Status, Lessons learned, Challenges and Support Needed for preparing

Status	Challenges
By August 13 the preliminary modeling results will be presented for key stakeholders validation	**Barriers to Raising Mitigation Ambition** **Economic Constraints**: Limited financial resources and the need for substantial investments in clean technologies and infrastructure. **Technological Challenges**: The need for advanced technologies and expertise to implement effective mitigation measures. **Energy Security**: Balancing the transition to renewable energy sources with the need to maintain energy security and reliability. **Social and Economic Impacts**: Addressing the potential social and economic impacts of mitigation measures, including tariff's growth, job losses in traditional industries and ensuring a just transition. **Adaptation Needs**: Prioritizing adaptation measures to enhance resilience to climate change impacts, particularly in vulnerable sectors such as agriculture and water resources.
SEI *key services:* • Modeling and technical analysis • Measure identification and costing • Target setting • Implementation and finance plans • NDC 3.0 document	
Tools for mitigation planning: • Low Emissions Analysis Platform (LEAP) • Next Energy Modeling system for Optimization (NEMO)	
Key partners:	

UNITED NATIONS DEVELOPMENT PROGRAMME

BTR1 of Kazakhstan: Status

BTR1: Submitted: 9 Nov 2024 Resubmitted: 17 Jan 2025	NID as a stand alone report Submitted: 10 Dec 2024 Resubmitted: 30 Dec 2024	**Annexes**

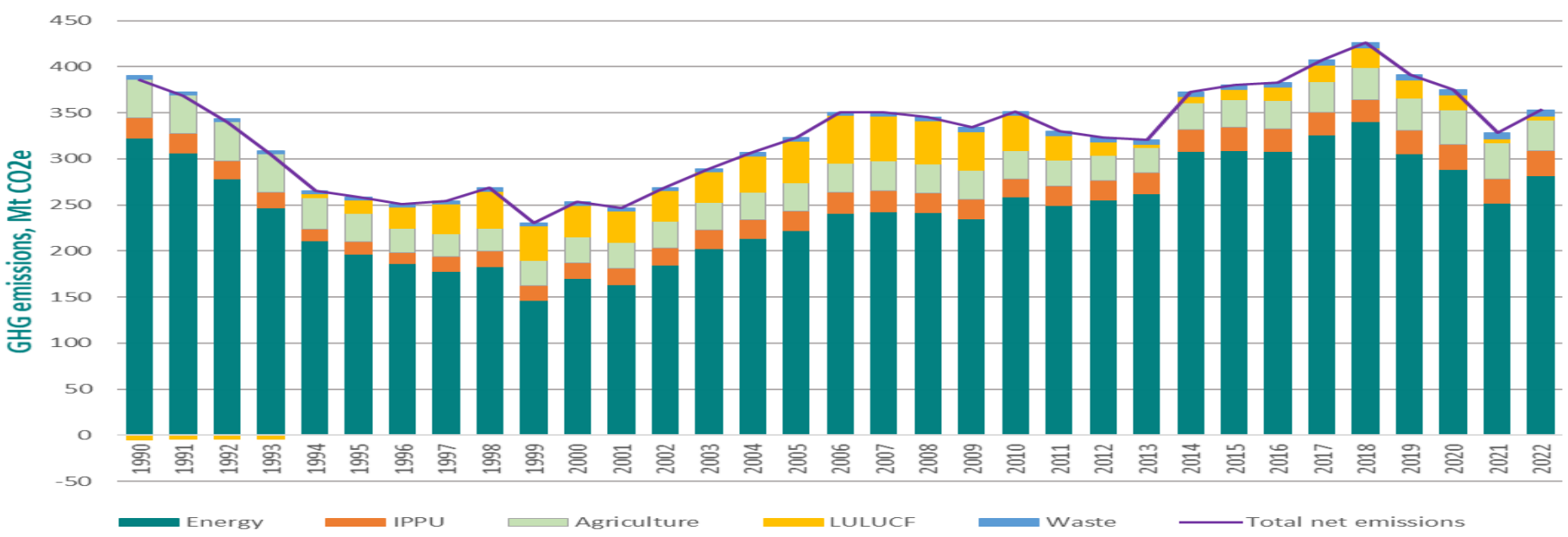
CRT - 17 Dec 2024
CTF tables NDC - 10 Jan 2025
CTF tables Support - 10 Jan 2025

	Most recent year in the Party's national inventory report (kt CO2 eq) [c]	*Projections of GHG emissions and removals, (kt CO2 eq)* [c]			
	2022	*2025*	*2030*	*2035*	*2040*
Sector [d]					
Energy	253,947.74	262,220.28	267,657.48	274,993.90	275,467.12
Transport	27,974.51	32,490.29	36,803.94	39,866.89	44,484.75
Industrial processes and product use	27,006.80	30,453.73	35,699.71	39,334.49	43,341.38
Agriculture	32,997.69	32,915.98	35,439.46	38,132.72	41,276.20
LULUCF	4,129.19	2,479.99	-454.14	-3,466.90	-5,961.42
Waste	6,917.10	7,174.49	7,633.77	8,126.39	8,656.36
Other (specify)					
Gas					
CO2 emissions including net CO2 from LULUCF	**278,292.08**	**289,473.65**	**301,212.91**	**312,048.98**	**318,487.15**
CO2 emissions excluding net CO2 from LULUCF	274,345.58	287,176.38	301,849.79	315,698.62	324,631.30
CH4 emissions including CH4 from LULUCF	**56,862.65**	**61,958.43**	**63,834.16**	**65,632.78**	**67,714.78**
CH4 emissions excluding CH4 from LULUCF	56,746.08	61,841.95	63,717.68	65,516.30	67,598.29
N2O emissions including N2O from LULUCF	**15,159.85**	**13,522.79**	**14,738.40**	**16,079.55**	**17,586.94**
N2O emissions excluding N2O from LULUCF	15,093.74	13,456.54	14,672.15	16,013.30	17,520.69
HFCs	2,648.53	2,769.52	2,983.56	3,214.15	3,462.55
PFCs	7.38	7.720	8.32	8.96	9.66
SF6	2.53	2.650	2.86	3.08	3.32
NF3					
Other (specify)					
Total with LULUCF	**352,973.03**	**367,734.76**	**382,780.21**	**396,987.49**	**407,264.40**
Total without LULUCF	**348,843.83**	**365,254.77**	**383,234.35**	**400,454.39**	**413,225.82**

In-country technical expert review of the BTR1 of Kazakhstan took place from 31 March to 4 April 2025 in Astana.

BTR1: Information necessary to track progress made in implementing NDC

	Unit	Base year level	Values in the implementation period			Target level	Target year	Progress made towards NDC
			2021	2022	2030			
Indicator: Total annual net GHG emissions consistent with values from 2024 NIR	kt CO2eq	385,736.50	328,422.27	352,973.03	NA	**15%** below the 1990 base year	2030	**8.49%** below the base year level



TERR: Areas of Improvements relating to consistency with the MPGs for NDC tracking

Recommendations:

- to improve the transparency of its reporting by including, as applicable, in its next BTR and CTF tables information on which specific carbon pools of the LULUCF sector are covered by the NDC (Description of NDC).
- as information is available and as applicable, to clarify in its BTR and relevant CTF table which IPCC guidelines (i.e., 2006 IPCC Guidelines or *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*) have been used for estimating emissions and subsequent removals from natural disturbances on managed land.
- To adopt a definition of the WM scenario that aligns with paragraph 94 of the MPGs and consistently apply it throughout its next BTR.

Encouragements:

- to improve the completeness of its reporting by providing, to the extent possible, the detailed information on the assessment of economic and social impacts of response measures called for in paragraph 90 of the MPGs.
- to correct the editorial error in the definition of the WOM scenario in its next BTR.
- to enhance the completeness and transparency of its reporting in the next submission by improving the description of TIMESKAZ
- and including that the correct GDP growth rate is used consistently for all assumptions relating to the projections, including industrial waste in the projections of emissions for the waste sector, and providing a sensitivity analysis for the IPPU sector together with a brief explanation of the methodologies and parameters used.

Capacity needs identified

- (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 is consistent between the NID and the CRTs and between the internal documentation and the CRTs to ensure information is reported in adherence to both IPCC good practices for data reporting and the MPG reporting requirements;
- (c) Improving the analysis of time-series consistency by fuel in the national energy balance to enhance the collection of accurate data 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 CO2 emissions from integrated iron and steel production facilities, including allocating emissions as either energy-related or process-related emissions, compiling carbon mass balances and accurately accounting for emissions from metallurgical gases (coke oven gas and blast furnace gas) transferred between processes;
- (e) Enhancing technical capacity for ensuring AD collection and use of methodologies in line with the 2006 IPCC Guidelines;
- (f) Enhancing the institutional arrangements for developing emission projections in order to improve the projections; ensuring the consistent application of scenario definitions across sectors; and including industrial waste in projections for the waste sector.

Thank you!

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