Tracking progress : Qualitative vs. Quantitative

Possible lessons from current reporting experiences of the Republic of Korea

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Existing MRV system under the Convention

	BR/IAR	BUR/ICA
Entities	Annex I	Non-Annex I
M•R	**(1) Information on GHG emissions and trends** **(2) Quantified economy-wide emission reduction target** **(3) Progress in achievement of quantified economy-wide emission reduction targets and relevant information** **(4) Projections** **(5) Provision of financial, technological and capacity-building support to developing country Parties** ** BR + Common Tabular Format (Table 1~9)*	**(1) Updates of national GHG inventories** **(2) Mitigation actions** (a) Name and description of actions (b) Information on methodologies and assumptions (c) Steps taken or envisaged to achieve that action (d) Progress of implementation of the mitigation actions (e) Information on int'l market mechanism **(3) Finance, technology and capacity-building needs and support received** ** Parties are encouraged to use the CTF.*
V	**(1) Technical Review** **(2) Multilateral Assessment**	**(1) Technical Analysis** **(2) Facilitative Sharing of Views**

Source : FCCC/CP/2011/9/Add.1, Annex I, III

ROK's example

❶ INDC (2015.06.30)

1. Korea's Mitigation Target

Korea plans to reduce its greenhouse gas emissions by 37% from the business-as-usual (BAU, 850.6 $MtCO_2eq$) level by 2030 across all economic sectors.

In accordance with the Framework Act on Low Carbon, Green Growth, Korea has made continued efforts to address climate change across all economic sectors and will strengthen its efforts to achieve the 2030 mitigation target.

Baseline	($MtCO_2eq$) Year: 2020 / 2025 / 2030 BAU: 782.5 / 809.7 / 850.6 The scenario is based on the BAU projection of KEEI-EGMS (the Korea Energy Economics Institute Energy and GHG Modeling System), taking into account projections for key economic variables, including population, GDP, industrial structure and oil price.
Reduction Level	Emission reduction by 37% from the BAU level by 2030
Coverage	Economy-wide
Sectors	Energy, industrial processes and product use, agriculture and waste (A decision on whether to include land use, land-use change and forestry (LULUCF) will be made at a later stage.)

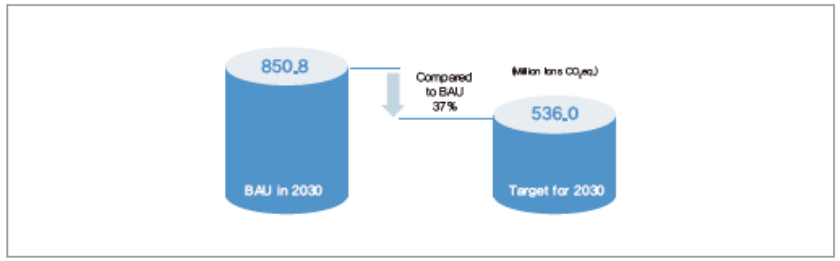
❷ 3rd BUR (2019.11.30)

〈Table 3-1〉 Amendment to the Roadmap for the National GHG Reduction for 2030

(Unit: Million tons, %)

Sub-sectors		BAU	Reduction compared to BAU	Reduction rate compared to BAU
Reduction Measures	Total	850.8	-314.8	37.0%
	Domestic Reduction	-	-276.4	32.5%
	Overseas Reduction	-	-38.3	4.5%

[Figure 3-1] National GHG Reduction Target for 2030



❸ Update of 1st NDC (2020.12.30)

2. Updated 2030 target

The updated NDC is set at the most ambitious level possible, considering the long-term temperature goal set out in Article 2 of the Paris Agreement. The updated target is to reduce 24.4% from the total national GHG emissions in 2017, which is 709.1 $MtCO_2eq$, by 2030. This is an absolute emissions reduction target that is more predictable and transparent than the target relative to Business-As-Usual (BAU) emissions projection in the previous first NDC. The updated target also includes an increased share of domestic reduction, which is facilitated through the Republic of Korea's continued mitigation efforts such as the nationwide ban on construction of new coal-fired power plants. In December 2019, *the Enforcement Decree of the Framework Act on Low Carbon, Green Growth* was amended to include the updated target, ensuring the legal basis for mitigation efforts. To lay a more solid foundation for carbon neutrality by 2050, the Korean government will further raise its ambition level for its 2030 national GHG reduction target and communicate further updated NDC at the earliest possible time before 2025.

Source : ROK's 3rd BUR, 1st NDC, Update of 1st NDC

Example : 3rd BUR of the ROK

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❶ 1st BUR (2014.12.29)

In the energy transformation sector, Korea is preventing GHG emissions by Renewable Portfolio Standard (RPS) mandate and offering subsidies for new and renewable energy power plants. Moreover, it is treating emitted GHGs by encouraging the development of technologies for the capture and storage of CO_2.

❷ 2nd BUR (2017.11.16)

[Table 3.2] Power Generation Segments by Year (MW, %)

Year \ Type	Total	Hydro	Nuclear	Integrated energy	Alternative energy	Thermal			
						Coal	Natural gas	Combined cycle	Others
2013	86,969	6,454	20,716	3,106	3,519	24,534	888	23,473	4,280
	100	7.4	23.8	3.6	4.0	28.2	1.0	27.0	4.9
2014	93,216	6,467	20,716	4,323	4,474	26,274	388	27,296	3,280
	100	6.9	22.2	4.6	4.8	28.2	0.4	29.3	3.6
2015	97,649	6,471	21,716	5,360	5,649	26,274	388	28,512	3,280
	100	6.6	22.2	5.5	5.8	26.9	0.4	29.2	3.3

※ Source: Yearbook of Energy Statistics, Ministry of Trade, Industry and Energy, 2016.

❸ 3rd BUR (2019.11.30)

〈Table 3-5〉 Status of Annual Power Generated from Renewable Energy and Total Supply Capacity of Accumulated Power Facilities

Descriptions	2013	2014	2015	2016	2017
Renewable energy power generation (GWh)	21,438	26,882	37,079	40,656	46,623
Share of total power generation (%)	3.95	4.92	6.61	7.24	8.08
Cumulative new and renewable energy total supply capacity (MW)	9,937	11,960,	13,729	13,845	15,703

※ Source: New and Renewable Energy Statistics, Ministry of Trade, Industry and Energy/Korea Energy Agency, 2017

Source : ROK's 1st , 2nd , 3rd BUR

- **Challenges in using quantitative or qualitative indicators to track progress**

  - No CTF? → Various (subjective) forms/expressions (changes between BTRs)
    (Low, medium, high? or A bit, so-so, very much? or XS, S, M, L, XL, 2XL?)

    → Then, how to observe the degree of historical change objectively?
    (ex: in the personal diet diary,
    I exercised how long? and reduced weight by how much?)

    → Nationally Determined "Contributions" vs. Nationally Determined "ETF"?
    (narrative "Reporting?" and Technical Expert Review?,
    Again, what is the purpose of the Reporting and Review?)

- **Implications on reporting to track progress towards the NDC under Article 4 in the ETF**

  - What kind of indicators do you want to use if we must prepare a series of report?
  - Accommodate all types of NDC under Article 4 + para. 77(d) + 79 of the MPGs in CTF

THANK YOU
감사합니다

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