

Green Budgeting in Korea: Challenge and Response toward Net Zero Emission

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Table of Contents

1. Green Budgeting

2. Climate Response Fund

3. Green Tagging



1. Green Budgeting

The Concept of 'Green Budgeting'

- General meaning of Green Budgeting
 - : The use of budgetary policymaking tools helping to achieve environmental and climate goals (OECD, 2021)
- Green Budgeting covers
 - Evaluating environmental impacts of budgetary and fiscal policies
 - Assessing budgetary and fiscal policies' coherence towards the delivery of national and international commitments.
- Green Budgeting in Korea is focusing greenhouse gases
 - GHG Reduction Cognitive Budget policy was implemented in 2022.

GHG Reduction Cognitive Budget

- This budgeting policy is a system designed to assess the impact of the Korean government's fiscal projects on climate change.
- It also provides relevant information regarding the budgetary policies' impact on climate change.
- It can facilitate informed, evidence-based debates and discussions on climate change goals during the budget decision-making process.
- Starting from the 2023 fiscal year budget, the Korean government submits the GHG Reduction Cognitive budget to the National Assembly as an attachment to the budget and fund management plan.

GHG Reduction Cognitive Budget plan in 2023 FY

- The total GHG reduction budget size is 11.9 trillion KRW (8.95 billion USD).

Name of Department	# of projects	Budget plan (bil. ₩)	Proportion (%)
Ministry of Environment	20	3,925	33.0
Ministry of Strategy and Finance	148	2,377	20.0
Ministry of Trade, Industry and Energy	68	2,238	18.8
Ministry of SMEs and Startups	3	1,901	16.0
Ministry of Oceans and Fisheries	22	461	3.9
Ministry of Education	1	421	3.5
Ministry of Land, Infrastructure and Transport	7	244	2.0
Ministry of Agriculture, Food and Rural Affairs	7	143	1.2
National Police Agency	1	89	0.7
Meteorological Administration	1	32	0.3
Rural Development Administration	5	26	0.2
Forest Service	4	20	0.2
Ministry of Culture, Sports and Tourism	1	8	0.1
Total	288	11,883	100.0

Source: Korean Government (2022)

Comparison of GHG RC Budget in 2023 FY and in 2024 FY

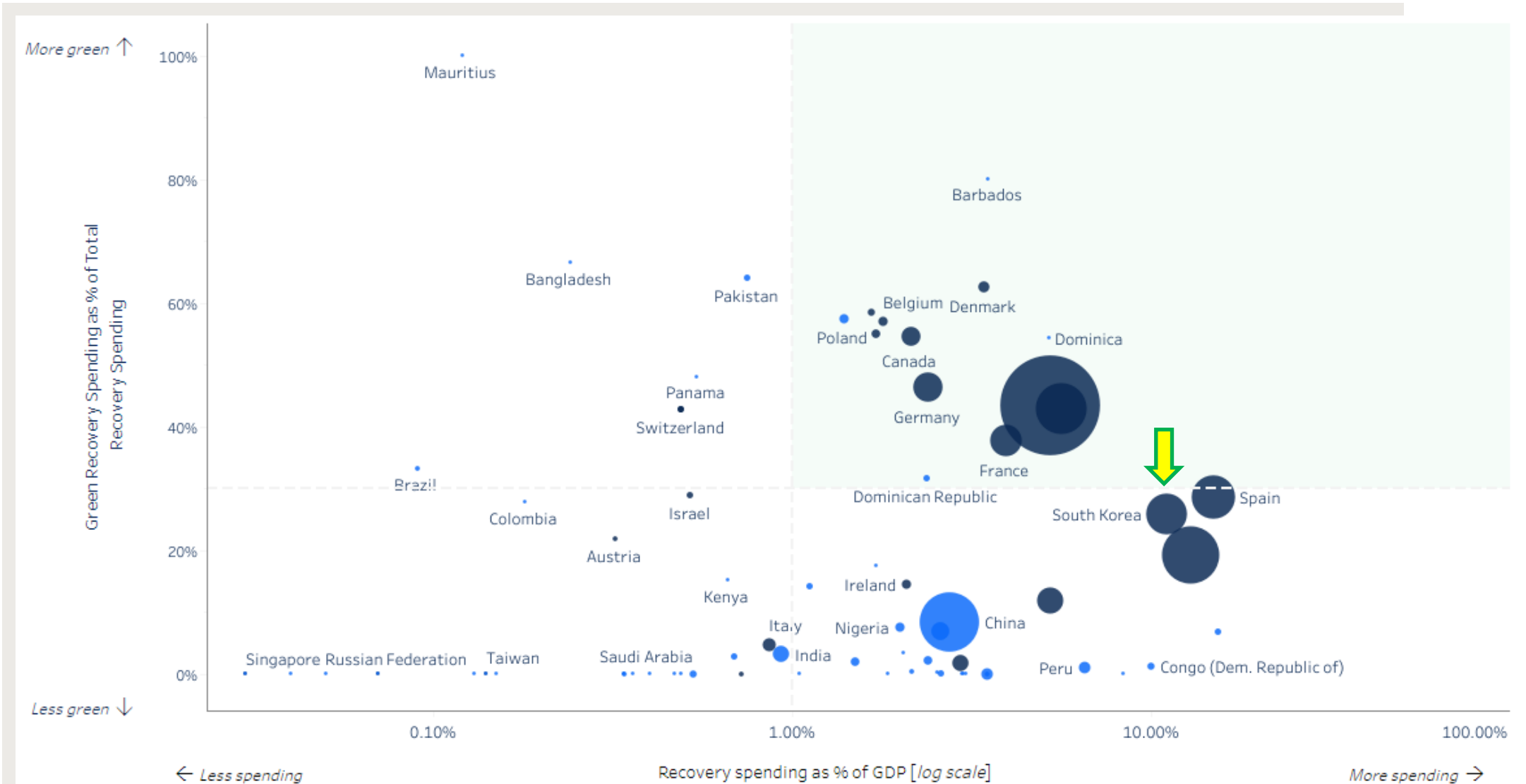
- The GHG reduction budget size decreases, but the number of projects increases in 2024.
 - The ratio of quantitative projects is approximately 53% in 2023, and it increases to 57% in 2024.
 - The expected total GHG reduction amount is 3.4 mil. CO₂eq.ton in 2023, and it rises to 4.4 mil. CO₂eq.ton in 2024.

Project Type		2023 FY	2024 FY
Quantitative	# of project	70	81
	Budget (bil. ₩)	6,286 (52.9%)	6,241 (57.4%)
Qualitative	# of project	62	74
	Budget (bil. ₩)	3,836 (32.3%)	3,074 (28.3%)
R&D	# of project	156	139
	Budget (bil. ₩)	1,761 (14.8%)	1,562 (14.4%)
Total	# of project	288	294
	Budget (bil. ₩)	11,883 (100.0%)	10,878 (100.0%)

We still have a long way to go

- The system is currently in its beginning stages.
 - The methodologies for evaluation and classification need further systemization and elaboration.
 - ✓ Avoiding over-estimation of the GHG reduction budget size
 - ✓ Limited time for GHG reduction budget preparation
(Insufficient time for review)
 - ✓ Insufficient empirical data to apply quantitative analysis
 - Once the system is well-organized, it can be fed back into the budget and accounting process to help achieve NDC and Net Zero goals.

Green Recovery Spending (As of 2020)



Source: Global Recovery Observatory (<https://recovery.smithschool.ox.ac.uk/tracking/>)



2. Climate Response Fund

Overview of 'Climate Response Fund'

- Objective of the fund
 - To establish efficient financial support programs to assist active responses to the climate crisis and the transition to a carbon-neutral society
- Purpose of the fund
 - Establishment and operation the government's GHG reduction foundation
 - Support for industrial, labor and regional economic transformation and corporate GHG reduction activities
 - Assistance for job conversion and creation in areas where economic and social conditions have deteriorated, or for workers and groups affected by the climate crisis response process
 - Green R&D, human resources training, loans, investments, education, promotion, and international cooperation to address the climate crisis

Overview of 'Climate Response Fund' (Cont.)

- Implementation of the Fund: Starting from 2022
- Size of the Fund: 2.4 trillion KRW
- Composition of financial resources in 2022 (in billions of KRW)
 - Power Industrial Foundation Fund: 200
 - Special Account for Energy and Resource Projects: 300
 - Revenue from Fuel Tax (Transport, Energy, Environment Tax) (7%): 763
 - Proceeds from the Auction for Emission Permits: 731
 - Deposit in the Public Capital Management Fund: 371

Areas for Improvement of 'Climate Response Fund'

- Need for intensive investment into the GHG reduction field
 - The Climate Response Fund provides approximately 1.5 billion USD annually.
 - For the commercialization of a certain technology, intensive early-stage investment would be more effective.
- Insufficient net inflow into the GHG reduction sector
 - Most of the financial resources were previously used for similar purposes.
- Unstable source of the Fund
 - Fuel tax revenues are gradually decreasing, and emission permit prices are not rising as expected.
- Inadequacy of the Fund's investments
 - Spending on places with little effect became an issue.



3. Green Tagging

Outline of 'Green Tagging'

- The meaning of green tagging: The practice of assigning a “tag” to each individual budget measure based on its alignment with or impact on green objectives
 - Both financial projects including subsidies and tax expenditures can be subject to green tagging.
- Though green tagging has not yet been implemented in Korea, there have been pilot attempts at green tagging in several policy studies.
 - Ex. Support group report in '2021~2025 National Midterm Fiscal Policy' (2021), Study on harmful subsidies to biodiversity (in progress)

An Example of pilot 'Green Tagging'

- Support group report in '2021~2025 National Midterm Fiscal Policy' (2021)
 - Attempts to classify carbon-neutral budget
 - Classification Results I. (Among 7,674 detailed budget programs)
 - ✓ Budget items **directly** related to carbon neutrality
 - : 132 programs (with a total budget size of 2.3 trillion KRW)
 - ✓ Budget items **indirectly** related to carbon neutrality
 - : 85 programs (with a total budget size of 7.9 trillion KRW)
 - Classification Results II. (Among 5,240 detailed subsidy programs)
 - ✓ Subsidy items **directly** related to carbon neutrality
 - : 173 programs (with a total budget size of 4.6 trillion KRW)

An Example of pilot 'Green Tagging' (Cont.)

- Classification Results III. (Among 284 tax expenditure programs)
 - ✓ Tax expenditure items *directly* related to carbon neutrality
 - : 12 programs (with a total expenditure size of 0.7 trillion KRW)
- The report estimated that total government expenditures directly related to carbon neutrality amount to 7.0 trillion KRW.
 - ✓ Indirectly related expenditures were estimated at 14.8 trillion KRW.

Considerations for introducing 'Green Tagging'

- Assessment based on actual impact, not just stated objectives of programs
 - The actual effects often deviate from the intended ones.
 - Results may vary depending on the extent to which indirect effects are considered.
- A consistent methodology for evaluation
 - Objective methods need to be established to provide practical assistance for appropriate feedback and policy decision-making.
- Policy priorities between 'Green Budget Tagging' and 'Negative Budget Tagging'
 - Finland and Indonesia show that negative expenditures can outweigh positive climate expenditures (OECD, 2021)
- Harmony between 'Green' and 'Equity'
 - For policy acceptance, it is also necessary to provide information on the impact on the vulnerable in addition to whether the program is green or not

Thank you

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