

IGES-GHGMI COP25 Official Side Event

“Enhancing the Transparency Framework by Policy-relevant MRV Systems”

Japan's experiences of policy-relevant MRV system

12 December 2019

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Several stages of domestic MRV activities

How much GHG are emitted from our country?
Where are GHG emissions emitting from?

GHG inventory
for understanding the actual situation of GHG emissions

What is the reason for the change of GHG emissions?

Trend analysis of GHG emissions
for understanding the changes of emissions and their reasons behind

How much can each Policy and Measure (PaM) reduce emissions in the future?
Which PaM contributed to the reductions?

Estimation of emission reductions and reduction potential of PaMs
for understanding which PaM is more effective

Introduction of new PaMs
Enforcement of existing PaMs
Setting of more ambitious targets

Approaches to assess progress towards the target in Japan

- ✓ **Global Warming Countermeasures Plan** covers targets of GHG emissions by sector and by gas, as well as PaMs that the national government, businesses, and citizens should implement to achieve the target.
- ✓ Two approaches to assess the progress towards the 2030 target are defined in the Plan.

Factor Analysis of GHG emission trends

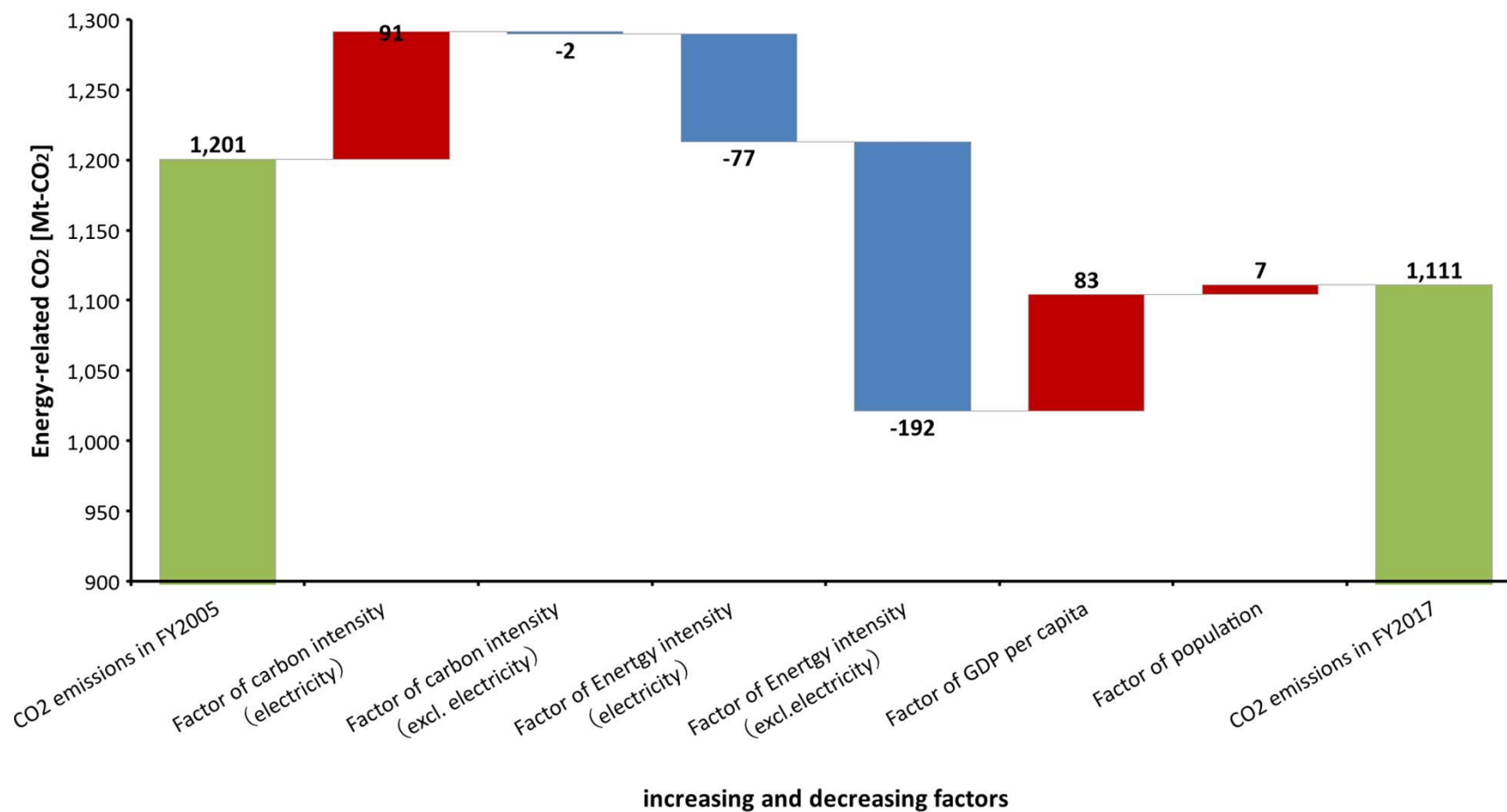
- Analyze the effects of overall PaMs in each sector by decomposing the changes of GHG emissions into several factors using the national GHG inventory data.
- The Ministry of the Environment conducts this factor analysis for the emission trend every year when the new emissions data are published.

Progress Evaluation of each PaM

- Check the progress of each PaM listed in the Plan.
- The relevant ministries collect the latest data of *measure evaluation indicators* for each PaM, assess the progress, and estimate emission reductions achieved.

Example of Factor analysis

Results of factor analysis for the trend of energy-related CO₂ between 2005 and 2017



Progress Evaluation of each PaM

- ✓ **Measure evaluation indicators for each PaM** are identified in the Global Warming Countermeasures Plan. Also, the **outlook of the evaluation indicators for 2020 and 2030** are indicated. The **actual values of the indicators** are collected and assessed their progress in the annual follow-up report.
- ✓ **Progress in reducing emissions of each PaM is evaluated on the five-point scale of A to E** based on the estimates of evaluation indicators.
- ✓ If PaMs showing slow progress are identified, **improvement and reinforcement of these PaMs will be considered.**

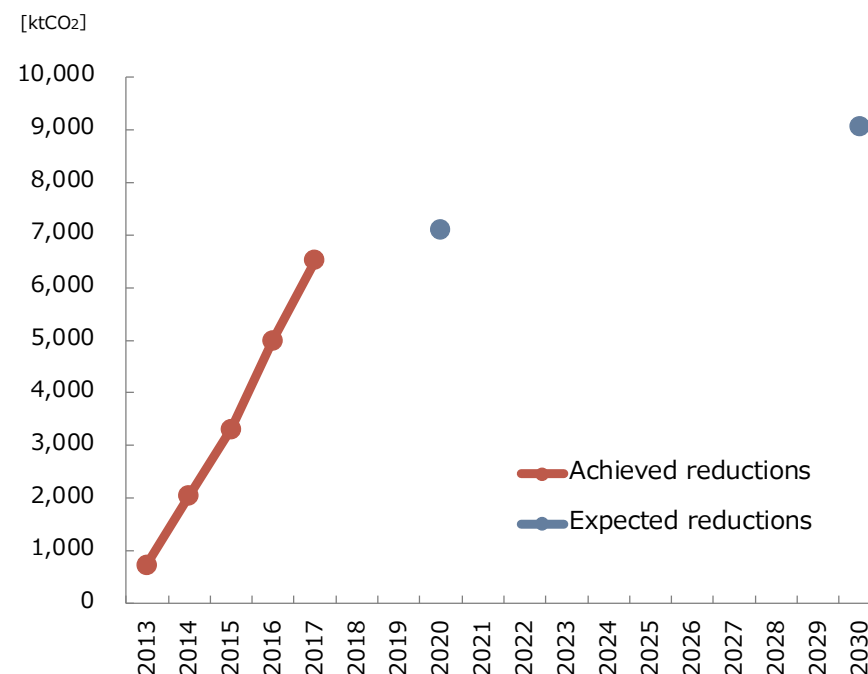
Example of progress evaluation of PaM

Ex.) Introduction of high-efficiency lighting in Residential sector

- ✓ Promote the diffusion of high-efficiency lighting devices, such as LED lamps, by expanding high energy standards, etc.
- ✓ The goal for the use of high-efficiency lighting devices;
 - ✓ 100% in the flow by 2020
 - ✓ 100% in the stock by 2030

Measure evaluation indicator	Cumulative number of high-efficiency lighting devices introduced
Progress in the emission reductions	B (Expected to exceed the target level for FY 2030)
Supplement to the progress assessment and reasons	The performance results of the measure evaluation indicators and the emissions reduced are on the increase. The current progress seems to exceed the forecast level based on the assumption of linearly changing measure evaluation indicators for FY 2030. This seems to be due to the acceleration of a shift to high efficiency lighting, which was enabled by promoting the improvement of energy consumption efficiency of all equipment via the top-runner program under the Energy Conservation Act and providing subsidies and support for the introduction of high efficiency equipment as part of support for the dissemination of ZEHs.

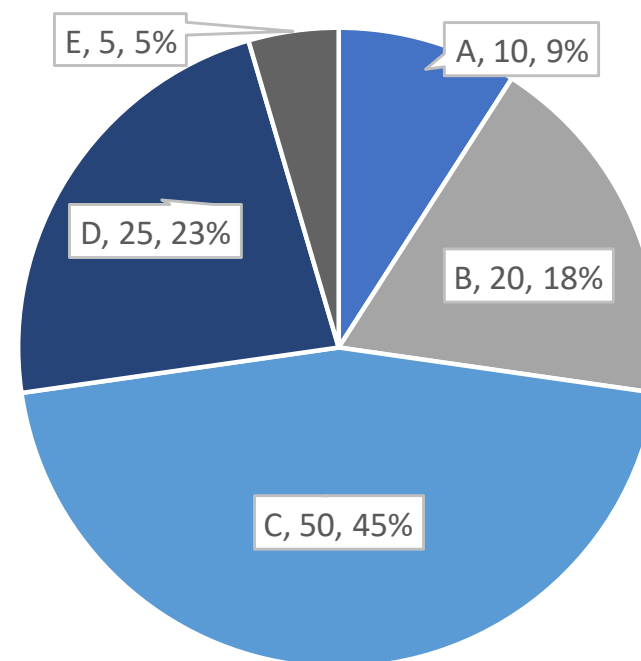
Achieved and expected emission reductions



Overall results of progress evaluation of PaMs in 2017

Among 110 PaMs listed in the Plan, 30 PaMs shows good progress (A & B, 27%). On the other hand, 25 PaMs have not progressed as expected (D, 23%).

A	If current efforts continue, the measure evaluation indicators are expected to exceed the target levels by FY 2030, and the actual performance value for FY 2017 has already exceeded the target levels for FY 2030.
B	If current efforts continue, the measure evaluation indicators are expected to exceed the target levels by FY 2030
C	If current efforts continue, the measure evaluation indicators are expected to reach the same levels as the target levels in FY 2030.
D	If current efforts continue, the measure evaluation indicators are expected to fall below the target levels for FY 2030.
E	Other (efforts for which quantitative data cannot be obtained)



Source: <https://www.env.go.jp/press/106633.html>

Views for Key questions

- ✓ **What are the policy-relevant MRV systems?**
 - ✓ Framework to track the progress of PaMs, which links to the development and enforcement of PaMs
- ✓ **How can we create those systems?**
 - ✓ Connecting GHG inventory data and PaMs
 - ✓ Embedding progress management framework into a domestic climate action plan
- ✓ **What are key factors for making the systems successful?**
 - ✓ Cooperation with the relevant ministries (Institutional arrangement)
 - ✓ Continuous improvement