SDG9 to achieve Carbon Neutrality/Net zero emissions

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Achieve Net zero in Japan & the world

• The impacts of GHG emissions have no borders. Global emission reductions are needed to reduce the damage.

• About 1/3 of global GHG emissions are from sources other than energy-derived CO2 emissions. Emissions of all types of GHGs need to be urgently reduced.

• At October 26th, 2020, in the policy speech to the 203rd session of the diet, Prime Minister Suga stated: “We hereby declare that by 2050 Japan will aim to reduce greenhouse gas emissions to net-zero, that is, to realize a carbon-neutral, decarbonized society”.

Total annual anthropogenic GHG emissions by gas (CO2 eq. in 2010, from IPCC AR5)

The main GHGs and substances that cause global warming

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Source) Japan Meteorological Agency(JMA) website
https://www.data.jma.go.jp/cpdinfo/chishiki_ondanka/p04.html
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- HFCs have an enormous effect on climate change. (GWP of HFC is hundreds to thousands of times higher than that of CO2.)
- Demand for cooling is expected to increase.

Source: IEA, Global air conditioner stock, 1990-2050
Current Status & Issues in Japan

Before 2020: Damage believed to be caused by climate change

2020~2021

Japan’s GHG Emission Reduction Target ¬46%(NDC)

2030

Japan’s net zero GHG emission target announced

Japan’s net zero GHG emission target 2050

Potential for significant damage in 30 years leading up to 2050

the Japanese parliament "Climate Emergency Declaration"

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Current Status & Issues in Japan

- A long way to go to achieve a 46% reduction in GHGs by FY2030 and CN2050.
- Must reduce energy-derived CO2 (85% of total emissions in FY2019).
- Challenges to energy transition (fossil fuel phase-out & increase in renewables)
- GHG emissions have been decreasing since FY2014, but by gas type, HFCs are increasing.

Current Status & Issues in Japan

- An increase in cities expressing commitment to achieving “Zero-Carbon City” & promotions of local decarbonization.
- Vulnerability of domestic infrastructure (electricity, etc.)
  Ex) typhoon Faxai in Chiba (2019)
- Accessibility to services in depopulated areas.

SDG9 industry & innovation for CN in Japan

• Green Innovation Fund to provide support for R&D projects, demonstrations, and social implementation projects for 10 years to companies that commit to ambitious goals

• 14 priority fields: Energy related industries (hydrogen, etc.), Transport/manufacturing industries (Automobile and battery, etc.), Home/Office related Industries(Housing and building, etc.)

Source) NEDO Green Innovation Fund Projects website
https://green-innovation.nedo.go.jp/en/
SDG9 industry & innovation for CN in Japan

- Measures to the whole lifecycle of F-gas in Japan
- International cooperation: “Initiative on Fluorocarbons Life Cycle Management” launched at COP25 in 2019

Source) Ministry of Environment, Japan
https://www.env.go.jp/content/900448782.pdf
SDG9 industry & innovation for CN in Japan

• Transition Finance: support to transit towards the decarbonized society
• “Basic Guidelines on Climate Transition Finance” & Sector Roadmaps as its annexes
• GX League: full-scale operation in FY2023

Source) Financial Services Agency; Ministry of Economy, Trade and Industry; and Ministry of the Environment, Japan

Source) Ministry of Economy, Trade and Industry, GX League website
https://gx-league.go.jp/#top
Strengthen adaptation policies & measures

- Significant damage could well occur by 2050, Japan’s target year for net zero GHG emissions, so it is crucial to strengthen adaptation measures to prevent and mitigate damage caused by climate change.
- The adverse impacts of climate change are more severe for marginalized populations in Japan and abroad that lack finances, know-how and other resources.
- In Japan and abroad, the COVID-19 pandemic has exacerbated unemployment and poverty and increased the numbers of people/communities that are vulnerable to climate change.
- There is a growing need to analyze and address climate change risks to specific groups and communities.

Examples of vulnerable populations

- children
- persons with disabilities
- low income households
- precarious workers
- vulnerable businesses
- migrants
- Indigenous peoples

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Suggestions from CSO perspectives

1. Promote energy transition
   • Increase clean, renewable energy without trade-offs.
   • Discuss on infrastructures along with energy transition.
   • Ensure a thorough practice of energy conservation, adjusting demands (demand response), utilizing heat.
   • Mitigate Non-CO2 gases including methane, fluorocarbons, etc.

2. Promote industry and finance for CN and ensure just transition
   • Develop industries that would contribute to CN2050 and create new employment accordingly.
   • An overwhelming majority are small and medium enterprises in Japan. These enterprises should be accessible to ESG finance.
   • Provide re-employment and entrepreneurial assistance for people involved in industries that will be negatively affected by CN initiatives.
   • Establish best standards for each industry.
Suggestions from CSO perspectives

3. Mainstream policies on climate change risks/measures and promote inclusiveness when designing policies on energy, infrastructure, and city planning

• GHG reduction will be implemented to prevent damages from climate change. Climate change measures should take into account a commitment to “Leave No One Behind”.

• Should consider whether those are interfering with the pursuit of other goals/targets. (Thorough consideration of the environment and society in infrastructure, industrialization, and innovation promotion.)

• Develop a participatory community and form a society where all kinds of people can play an active role. (Stakeholders’ dialogue and engagement)

• Initiatives to achieve SDG 9 should also contribute to climate change adaptation.

Thank you!