

# From Green Recovery to Net-zero Society

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# Climate Change and Covid-19

- Climate Change and Covid-19 : Important issues related to the **survival of humankind** that the **international community** should work together on
  - Deeply related to economic **globalization**: globalization and liberalization of people, goods, money, and information movement seeking maximum profit
  - Following SARS in 2002 and MERS in 2012, the appearance of Covid-19 for the third time in 20 years is abnormal frequency. Possible **changes in ecosystem due to climate change and chaotic development**, and changes in distance between humans and wildlife
- **A high level of crisis awareness and effective measures are required for both problems**



# Comparison of measures against Climate Change and Covid-19

## Climate Change (decarbonized society)

### commonalities

- Importance of credible **scientific knowledge**
- Necessary to **change the way people work and live**
- **Coordinated measures by the international community** are necessary
- Efforts by society as a whole and **large-scale fiscal spending** to support them are necessary (the scale of fiscal spending is different)

Fiscal mobilization scale: Approximately 30 trillion yen / year in the world (estimated by the IEA for 2016-2050 electricity sector decarbonization costs)

### differences

- Transition to **sustainable energy**, improvement of **energy and resource efficiency**, lifestyle that does not depend on material consumption, and to an economic system that contributes **to higher quality of life and people's well-being**.
- Fiscal spendings such as **sustainable infrastructure** development and **new technology** development are regarded as **investment**. Greater economic returns can be expected.

## Covid-19

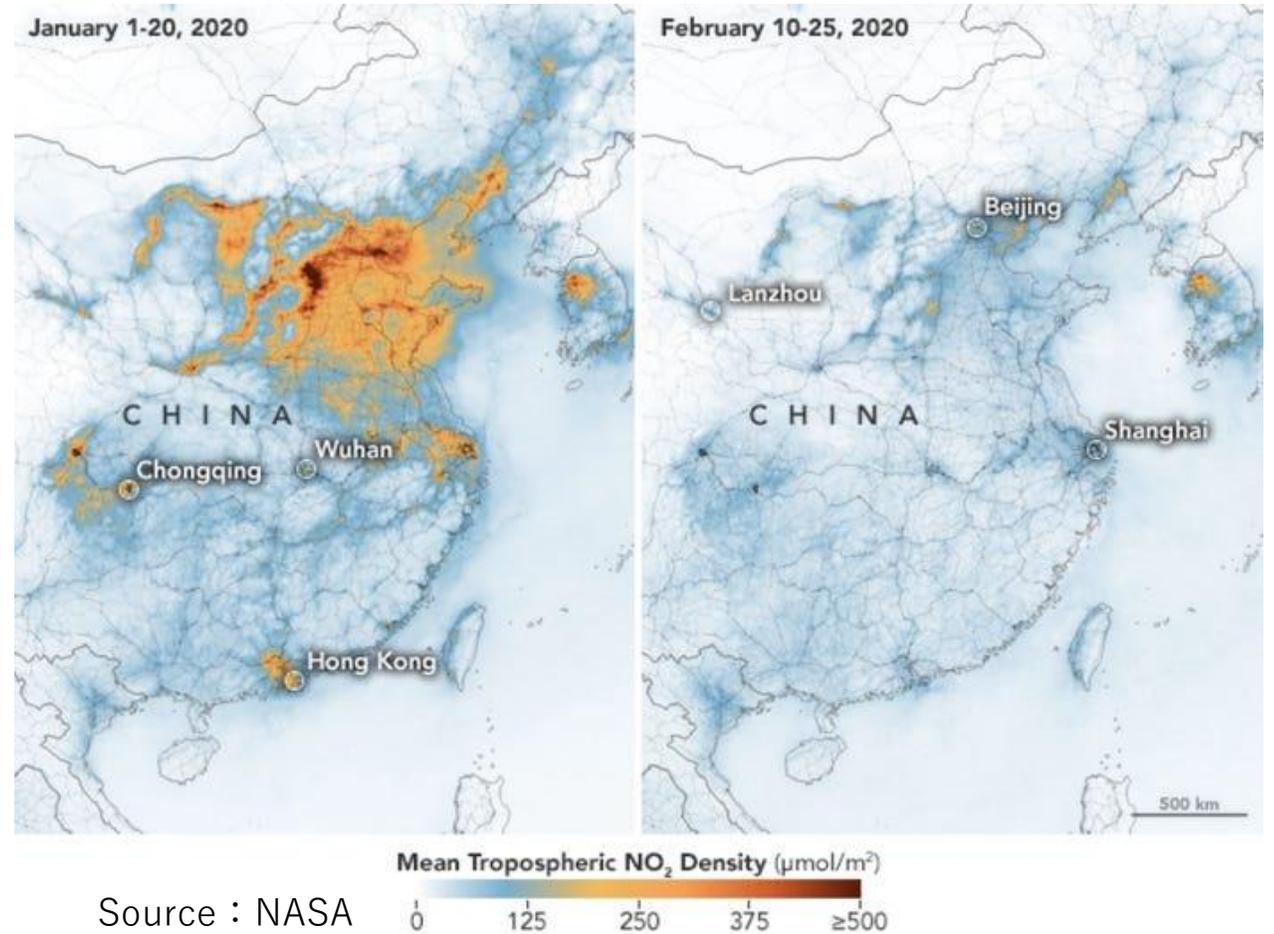
Fiscal spending scale: Approximately 800 trillion yen worldwide (as of April 15)

### differences

- It is essential to **avoid contact between people**, and necessary to limit economic activities, movement of people, and meetings. Maybe necessary to **sacrifice quality of life**.
- Fiscal spendings to covers economic loss (such as leave compensation) are **economic costs**.

# Reduction of economic activity due to Covid-19

- Short-term: Reduction of air pollutants and greenhouse gas emissions (eg China)
- **Environmental improvement is temporary:** After the end of the pandemic, when economic activity returns to normal, emissions of pollutants and greenhouse gases will also rebound.
- Economic stagnation and contraction due to Covid-19  
→ Possibility of **delaying implementation of climate change countermeasures.**
- Changes in economic activities and daily life due to measures against Covid-19 (telework, telecommuting, online meetings, etc.) → **new lifestyles, and work styles with low environmental impact.** → should be institutionalized and diffused.

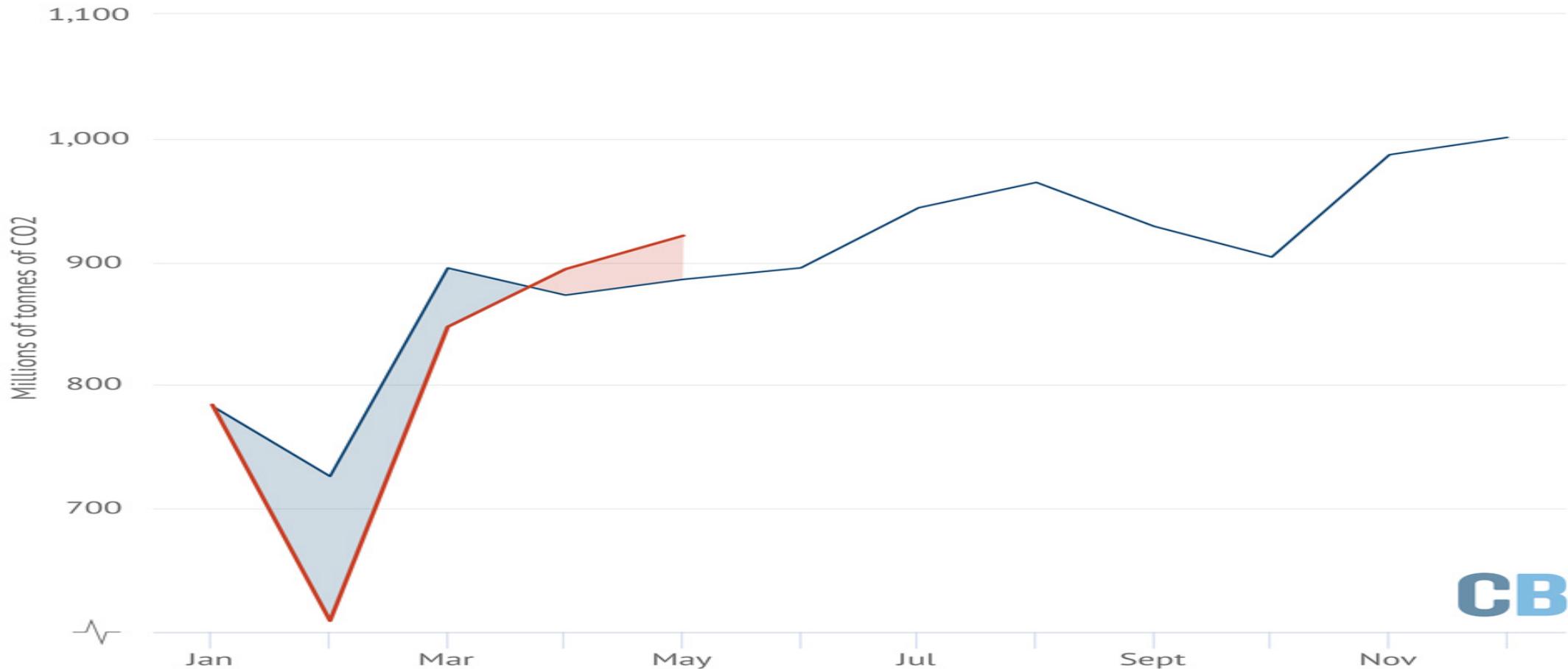


Improvement in NO<sub>2</sub> pollution in China :  
January 1-20 (left), February 10-15 (right)

# CO2 emission in China: 25% reduction during lockdown (early Feb to mid-March), 5% increase in March (compared to the last year)

[https://www.carbonbrief.org/analysis-chinas-co2-emissions-surged-past-pre-coronavirus-levels-in-May?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=newsletter\\_axiosgenerate&stream=top](https://www.carbonbrief.org/analysis-chinas-co2-emissions-surged-past-pre-coronavirus-levels-in-May?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axiosgenerate&stream=top)

## China's CO2 emissions **surged** past pre-coronavirus levels in May Monthly emissions from fossil fuels and cement in 2020 versus 2019



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# Build back better from COVID-19=Green Recovery

## 1. Basic direction of recovery from COVID-19(UN)

- Ensure a strong and collaborative health and medical system
- Mitigate the impact on life, livelihoods and the economy
- Help people endure adversity, job security
- Learn the lessons of the COVID-19 crisis and make transition to a more equal & inclusive society ("**Build Back Better**")

## 2. Building a "better society" = avoiding the climate crisis is essential

- **Green Recovery:** a recovery of the economy and society damaged by the corona disaster into a resilient, environmentally friendly, decarbonized, disaster-resistant society and economy, preserving ecosystems and biodiversity.
  - Conventional economic recovery measures (support for fossil fuel-intensive industries, aviation, expansion of tourism, etc.)→ May contributes to short-term economic recovery, but long-term decarbonisation and structural change is unlikely.
  - **New economic recovery measures:** should simultaneously contribute to the **transition to a decarbonized society and the realization of the SDGs**. (Low-carbon employment, renewable energy, new lifestyle workstyles such as telework, etc.)



# EU: European Green Deal

## Making Europe the world's first carbon neutral continent

European Green Deal will change economy to solve climate crisis, says EU

Everything from travel to air quality has been looked at in order to create 'a growth that gives back'



President of the European Commission  
Ursula von der Leyen  
[www.theguardian.com](http://www.theguardian.com)

- EU's **New Growth Strategy** to Create Jobs While Cutting Emissions
  - Reconstruction fund, huge budget (**1.8兆€: 30% earmarked for climate change**)
  - European Climate Bill (**Net Zero Legislation** in 2050)
  - Border Carbon Adjustment Mechanism
- ~ Aims to be a global **Green Recovery leader** ~

# USA : What will change with President Biden?

- Back to **Paris Agreement**

- To realize Campaign Promises

① **Net zero emission** of greenhouse gases across the economy **by 2050**

**Net zero** emissions, by **2035, from power generation**

② Investment for sustainable Infrastructure and clean energy: **2 trillion US\$** in 4 years

③ Reinforcing Greenhouse Gas Emissions Regulations and Incentives Realization of

④ Realization of **Environmental Justice**



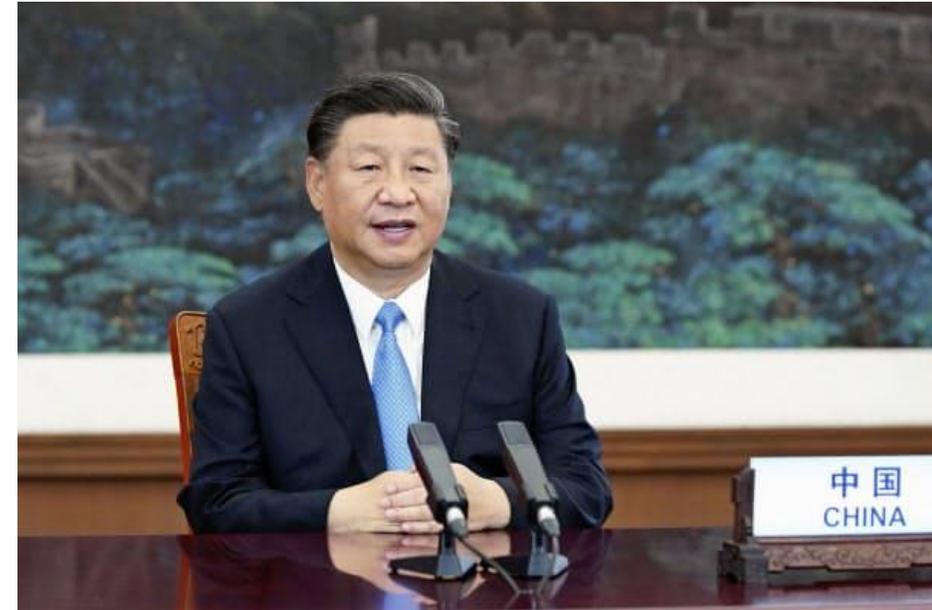
<https://www.tokyo-np.co.jp/article/63844>

\*Legislation and budget have to be approved by the Congress.

# China also announced net zero by 2060

- President Xi Jinping:

At the United Nations General Assembly in September 2020, President Xi Jinping announced that he will aim to **peak CO2 emissions by 2030** and **achieve net zero carbon emission by 2060** to achieve a decarbonized society.



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# Carbon neutral & Post COVID-19 Economic Recovery: Korean Green New Deal

- **On October 28, 2020**, President Moon, in his State of the Union address, "I want to work with the international community to proactively address climate change and **achieve carbon neutrality by 2050**".
- **On July 14, 2020**, the "Korean New Deal" was released as a post-Corona economic recovery plan.
  - **114.1 trillion won (\$94.6 billion) will be invested in the "Green New Deal"** policy aimed at creating jobs in the environmental sector.
  - To break away from dependence on fossil fuels and foster environmentally friendly industries using digital technologies such as electric vehicles, hydrogen vehicles, and smart grids (next-generation power grid). The plan is to create **1.9 million jobs by 2025** through new projects.

source : <http://www.asahi.com/international/reuters/CRWKCN24F0SY.html>

※Ruling Party won the election **on 15 April 2020**, with the Campaign Promise of Green New Deal.

- ① **Aim for zero carbon emissions by 2050 (first carbon neutrality in Asia)**
- ② Large-scale investment in renewable energy
- ③ Introduction of **Carbon tax**
- ④ **Phase out of domestic and overseas coal project financing**
- ⑤ Transition to **green jobs**



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# PM Suga announced carbon neutrality by 2050

- On October 26, 2020, PM Suga declares that "**by 2050, we will aim to achieve overall net zero greenhouse gas emissions** (carbon neutral) and a decarbonized society" .

- 4 steps are necessary:

- 1) Strengthen the greenhouse gas reduction target by 2030:

- At least **45% reduction from 1990 levels by 2030**

- 2) In the revision of the Global Warming Prevention Plan and the Basic Energy Plan:

- **Increase renewable energy and reduce coal and nuclear power**

- Increase energy efficiency

- 3) Retreat from coal-fired power plants:

- **Phase out of coal-fired power generation** in the country

- Suspension of support for the construction of coal-fired power plants abroad

- 4) Carbon pricing: Introduction of a **full-scale carbon tax**



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# From Green Revival to Net Zero Society: Challenges of Transition

## Vision for a Decarbonized Society: **Japanese Version of Green Recovery**

- Sharing the **sense of climate crisis** and aiming to decarbonize the world and Japan as a **national goal**
- Introduce measures in all areas of society to **transform to a zero-carbon, sustainable economy** through changes in technology, social systems, and lifestyles, including shift to sustainable energy, improve resource efficiency, shift to a lifestyle independent of material consumption, compact cities, public transportation, use of IoT/AI/ICT.

## Energy conversion policy on the axis of economic recovery

Support for labor and employment transition (**just transition**) in conjunction with the decarbonization transition