

Global Climate Governance: New Opportunities For East Asia Cooperation

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I Climate change is the focal point of the world affairs today

The CJK, have the important influence as a regional and even global countries, have the common strategic interests in the field of environmental climate, and formed the good cooperation mechanism.

Paris Agreement on Climate Change

- Hopefully, this agreement will be into force before November. (55 and 55%);
- China has ratified this agreement.
- Japan and Korea are still in the process.

The pessimistic view on the story

- In fact, the relatively conservative International Energy Agency has already said that the carbon reduction plans released by the world's largest economic entities have revealed a global path “consistent with an average temperature increase of around 2.6 degrees Celsius by 2100 and 3.5 degrees Celsius after 2200.”

- So, we need to do something collectively right now.

II Japan used to be a leading country across the world in the environmental protection.

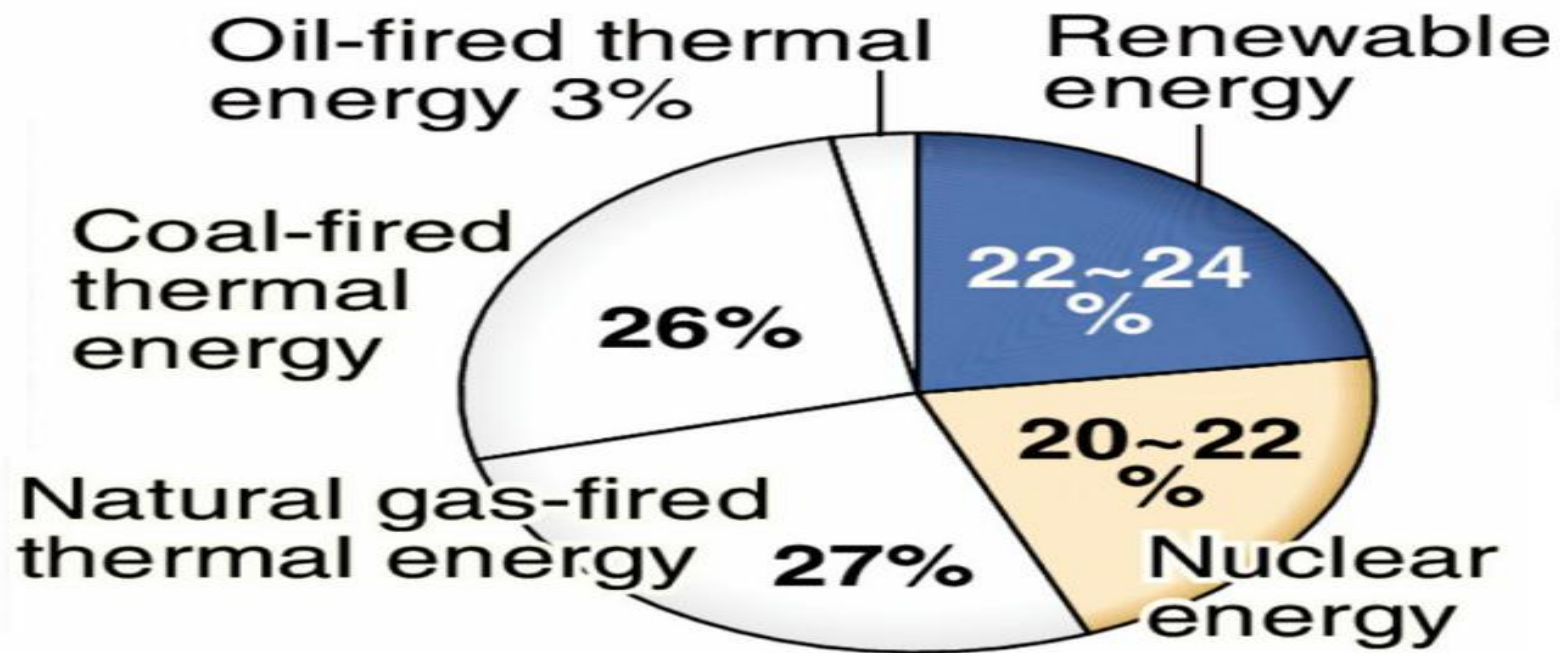
- Environmental awareness and public participation;
- Foreign aid for environmental protection;
- High energy efficiency;
- Low carbon technology;

Lagging behind

- As an industrial/commercial giant and the third largest economy in the world, Japan has officially pledged to cut greenhouse gas emissions 26% from 2013 levels by 2030.
- As the sixth-largest air polluter in the world, Japan emits more greenhouse gases than most other nations. In 2010, Japan accounted for nearly 3% of global emissions.

Japan's proposed energy mix for 2030

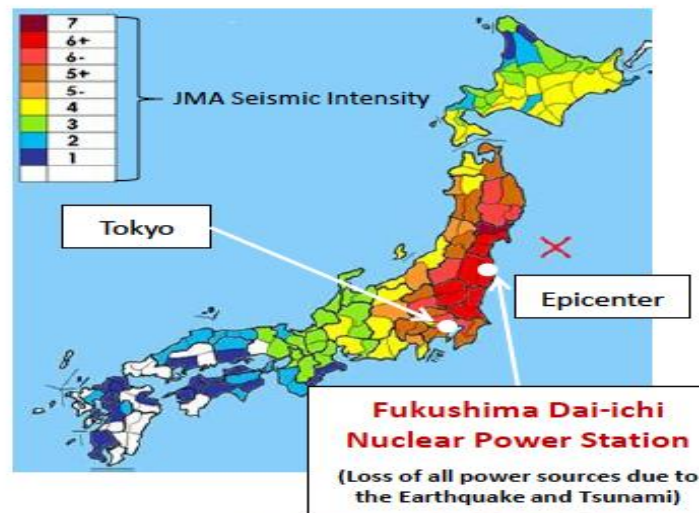
Govt-approved mixed-energy plan for 2030



Change of national circumstances after Fukushima (draft 2015 INDC)

Change of National Circumstances after the Great East Japan Earthquake

- Date : 11 March 2011
- Magnitude : 9.0 (the largest magnitude recorded in Japan's history)



Casualties
(as of May , 2015)

Dead: 15,891
Missing: 2,579

Building damage
(as of May , 2015)

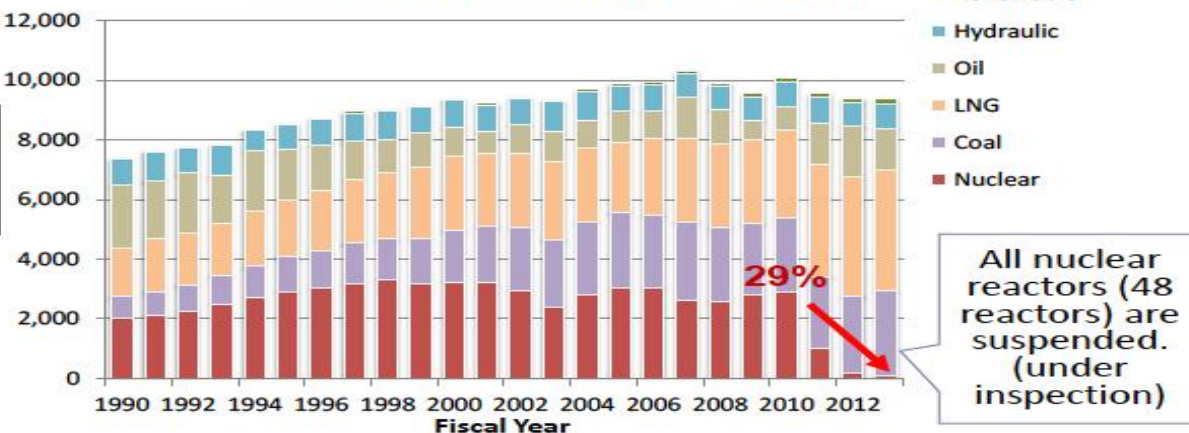
Total collapse: 124,657
Half collapse: 274,340
Partial damage: 746,183

Estimated economic damage

JPY 16.9 trillion (USD 170 billion)

100 Million kWh

Trend of Electric Power Sources



Japan isolated as G7 eyes tougher climate change targets



III Korea was among the first countries to embrace green growth as a national development strategy.

- Few countries are as committed to growing in an environmentally sustainable manner as Korea is.
- The country is now spreading its green philosophy and knowledge through partnerships, institutes, and policy advice.

Japan, Korea plan to built 61 new coal plants in the next decade.

- 20 new power plants in Korea by 2021.
- 41 coal fired power plants in Japan. Taxes favor imports of coal rather than natural gas.

IV China has been playing the leading role in the Climate change issue after Copenhagen.

- **China's** economic development during the last century was swift, but it initially overlooked the environment protection.
- China moved from an impoverished country to an economic powerhouse and the world's second largest economy in more than 30 years.
- It used an active export policy to become one of the world's most competitive economies, dominant in textile, ship-building and electronics. It is also became a case study of the need to change historical patterns of production and consumption, and to more efficiently use and manage natural resources.

(1) Trends of China's Carbon Emissions in 1950–2012 (Zhu Liu, 2015)

- China's carbon emissions increased more than 100-folds during 60 years with the robust economic development.
- In 2007 China's carbon emissions surpassed that of the U.S., in 2012 China's carbon emissions were almost equivalent to the carbon emissions from both the U.S. and the E.U. combined.
- China's carbon emissions from fossil fuel burning and cement production were 8.50 Gt CO₂ in 2012, making it the country with the largest emissions in the world.
- Only 5.46 Mt CO₂ in 1950.

(2) Cumulative emission

- China's carbon emissions accounted for 73% of the cumulative global emissions growth between 2010 and 2012.
- China's carbon emission declined due to the economy slowdown since 2012.

(3) Energy Consumption

- Carbon emissions are mainly the result of fossil fuel combustion (90%) and cement production (10%).
- In 2012, 90% of China's energy consumption was primarily derived from fossil fuel combustion (Figure 2): 68% from coal consumption; 13% from oil and 7% from gas.
- (Particularly, the emissions from coal consumption increased at an average annual rate of 5% between 2000 and 2012.)

(4) Carbon Emissions per capita and Emissions Intensity

- Carbon emissions per capita
- and carbon emissions intensity (emissions per unit of GDP)
- China is by now the largest country in terms of population and the second largest country in terms of GDP;
- Its per capita emissions are still lower than those of the major developed countries. (6.26 t CO₂/per person, a level approaching that of the .E.U. average, but one that is lower than the level of the U.S. 17 t CO₂/per person).

China's target: strong, sustainable, balanced and inclusive growth

- We will unwaveringly pursue a strategy of sustainable development and stay committed to green, low-carbon and circular development and China's fundamental policy of conserving resources and protecting the environment.
- In promoting green development, we also aim to address climate change and overcapacity.
- In the next five years, China's water and energy consumption as well as CO₂ emission per unit of GDP will be cut down by 23%, 15% and 18% respectively.
- To make China a beautiful country with blue sky, green vegetation and clear rivers, so that the people will enjoy life in a livable environment and the ecological benefits created by economic development.

A different story

- UN climate chief Christiana Figueres says the low carbon leadership of China's government should be used as an example worldwide.
- Speaking ahead of the China Summit on Caring for Climate, she said the recent five year plan and carbon market pilots were evidence the planet's largest economy is committed to change.

China's INDC

- China pledged to reduce CO₂ emissions per unit of GDP (carbon intensity) by 60-65% below 2005 levels by 2030;
- Peak CO₂ emissions around 2030;
- And increase the share of non-fossil fuels in primary energy consumption to approximately 20%.
- The carbon intensity goal will require a 4% annual decrease in carbon emissions

- The core of China's energy strategy is to develop a new energy system dominated by nuclear power, renewable energy, and energy efficiency investment.

Application of Market Mechanisms

- China's national cap-and-trade program (or ETS: emission trading system) is scheduled to launch in 2017.
- This program is projected to become the cornerstone of China's national climate policy to achieve the main goal in its Intended Nationally Determined Contribution (INDC): lower CO₂ emissions intensity by 60-65% from the 2005 level.

To encourage the Innovation and creativity

- The cap-and-trade program provides economic incentives for the innovation and diffusion of clean technologies;

7 ETS pilots

- They had accumulated rich empirical experience, both positive and negative, for the future national cap-and-trade program in 2017.
- A top-down approach or a bottom –up approach?
- it was said that the national program will adopt comprehensive compliance rules, including strict rules for MRV and financial penalties.

Electric Vehicles (EVs): good or bad?

- China has promoted electric vehicles (EVs) as a national strategy to transform its transportation energy structure while fulfilling consumer desire to own cars.

V

- As neighboring countries of East Asia, we have an obligation to work together in order to fight climate change, and take action to make sustained prosperity on Earth possible, not only for the current generation, but also for generations to come.

The New Opportunities For East Asia Cooperation

- we can work together to build a multilateral partnership for win-win cooperation. In the era of globalization, there is no island completely cut off from the rest of the world.
- Climate change issues is a great challenge we face, at the same time, we could take this new opportunity to pave the way to the East Asia cooperation.

VI Low Politics vs. high Politics

- The environmental initiative among China, Japan and South Korea could be one of the most fruitful field among other trilateral cooperation in the near future.

VII Areas of CJK environmental cooperation

- Environmental education, environmental awareness and public participation;
- Climate change (low carbon society and green growth, etc.);
- Biodiversity conservation;
- Pollution control (air, water, and the Marine environment, etc. especially the haze pollution.);
- A carbon tax pricing mechanism
- Local climate change policy implementation;
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The rising tide lifts all boats

- Chinese President Xi Keynote Speech at the Opening Ceremony of the B20 Summit
- *“The world will be a better place only when everyone is better off.”*
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