



Citizens' Alliance for Sustainable

Asia and the Earth

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## **No Need to Rely on Nuclear to Achieve Japan's 25% GHG Reduction Target Domestically**

### **- Results of CASA 2020 Model Simulation (Ver.3) -**

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The M 9.0 earthquake and tsunami that struck Northeastern Japan on March 11, did not only cause unprecedented loss and damage, but also triggered a meltdown of three reactors of Fukushima Daiichi nuclear power plant, which became a historical nuclear disaster. Even after three months, there is no prospect to curb radioactive leakages. The nuclear catastrophe made it clear that there are no technical ways to block in immense radioactive substances "safely and perfectly" in nuclear reactors and once an accidental increase of nuclear chain reaction occurs, it is extremely difficult to control the situation. Moreover, nuclear power accidents can cause radiation pollution as well as economic damages for excessive period of time and the damage defies comparison with other accidents. Japan's nuclear safety myth is shattered and there is a vital need for energy policy without nuclear powers.

With its „CASA 2020 Model“ CASA assumed to shut down all the nuclear power plants by 2030 in Japan, and considered whether emission reduction of CO<sub>2</sub> by 25% below 1990 levels can be achieved by 2020 and whether energy demand can be met as well as its economic impact. The simulation results show quantitatively that even if Japan does not rely on nuclear powers, it can still reduce 25.2% of CO<sub>2</sub> by shifting energy sources to LNG and renewables as well as introducing energy saving technologies. The introduction of feed in tariff policy is a must for the energy shift to renewables. In addition, the results showed little macroeconomic impact.

On the grounds of the catastrophe, however, there is a movement within the government to drop its 25% mid-term GHG reduction target. The results of CASA's simulation show that there is no reason to withdraw this international commitment. Japan is already causing trouble to the world with its Fukushima power plant. It is a betrayal to future generation if it were to withdraw its minimum commitment that relates to the survival of the humanity.

Until now, there has never been a real public debate about nuclear energy policy in Japan. Japan needs to consider the accident risk fully and discuss seriously whether to choose nuclear as our future energy source. This is the responsibility of current generation for our future generation.