

Urgent Statement on Climate Change and Energy Issues

Sustainable Management Forum of Japan (SMF)

5 April 2011

First of all, we, the undersigned members of the Sustainable Management Forum of Japan (SMF), would like to pray for all people who lost their lives by the Great Eastern Japan Earthquake and tsunami to rest in peace, and sincerely hope the people evacuated and staying in places of refuge will return to their normal life as quickly as possible. We also offer thanks to the people who are trying heroically to repair damages in the Fukushima nuclear power plants. We also would like to express gratitude to all the countries which kindly extended their support to Japan.

Problems caused by the devastating earthquake and tsunami of March 11, 2011, amplified by human errors in the subsequent countermeasures and inappropriate attempts to stabilize the nuclear power plants are still continuing. It is urgent at this moment to tackle these difficulties and restore order to the current situation. However, in parallel, it is also urgent to begin to think about the ideas, vision, and policies that should be taken to rebuild a new Japan in the twenty-first century, as well as what measures should be taken in short, mid and long-term perspective. We are convinced that such thinking for rebuilding Japan will become a requiem for the people who were sacrificed in this disaster.

Although human society has been trying to change the course of civilization, to realize sustainable development, and a society characterized by “circulation society”, “low carbon society”, etc., since the 1992 UN Summit, progress toward these goals has been very slow and it is not an overstatement that the situation has been getting worse and worse. If people simply continue the current course, it is highly likely that the atmospheric average temperature may be over 4 degrees centigrade higher by around 2060, which may threaten the very existence of human society. This is an extraordinarily serious situation.

We think it is better to understand this unprecedented disaster as an opportunity to create and construct a sustainable society with a paradigm shift from the current “business as usual” approach. Japan’s population is estimated to decrease to around 90 million by 2050 from the current 120 million, with a decrease in productive population by tens of millions, due to a decline in birth rate and an increase of the elderly population. However, if Japan were to begin reconstruction and succeed in creating a sustainable society, it will be a good example for developing and emerging countries/economies in the world who also must tackle the difficulties caused by the demographic change. This may be a repayment to such countries for their support and encouraging words toward Japan.

We think that Japan shall consider the followings:

1. Diversity of culture, including our response to globalization;
2. Revolutionary change (paradigm shift) of our life style;
3. Climate change and energy issues, and
4. Material resources issues, etc.

Since it is not an appropriate time to make a statement on all these issues now, we, the undersigned members of the SMF, keeping such issues in mind, have decided to make an urgent statement on the mid and long-term policy relating to climate change and energy that is directly associated with recovery from the calamity before us.

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1. Basic policies

We, the undersigned members of the Sustainable Management Forum of Japan (SMF), propose the following basic policies to tackle this difficult situation with the same challenging sprits that animated people as the time of the Meiji Restoration and the reconstruction of the nation after the Second World War.

- Witnessing the unprecedented failures of the nuclear power plants in Fukushima, we are of the opinion that any construction of new nuclear power stations is absolutely impossible to accept in Japan, especially because of its high risk of destruction by frequent earthquakes. Therefore, in the first half of the twenty-first century, we strongly propose to radically as well as fundamentally transform the nuclear-oriented energy policy of Japan.
- Japan shall revise its national energy policy dramatically to shift to natural and locally distributed energy resources, and adopt a target to become a front runner of natural energy use in the world.
- Safety measures of existing nuclear power stations shall be upgraded and they shall be operated cautiously as well as deliberately until the end of their lives with the assistance of the international community. Japan shall contribute to the technological advancement for the safe operations of nuclear power plants to repay the rest of the world for the supports currently extended to Japan.
- In order to materialize this, the Nuclear and Industrial Safety Agency shall be separated from the Ministry of Economy, Trade and Industry (METI) and re-organized as an independent commission or organization supervised directly by the Prime Minister of Japan. Information disclosure in this new organization must be complete with the exception of terrorist related information. Furthermore, electric power companies shall rebuild the risk management system in their nuclear power stations (or Business Continuity Plan) and such information shall be completely disclosed (except information relevant to counter terrorists measures).

- Revolutionary change of energy saving industrial structure and people's life style shall be undertaken.
- Companies shall establish their group's strategic environmental management vision and targets toward 2020 and 2050 in order to contribute to a sustainable society and disclose them to the public.

2. Measures to be taken

The following measures are examples and not be considered exhaustive. Many of these measures should be supported by laws and regulations.

Long-term measures (by 2050 and beyond)

The followings shall be realized by implementing mid-term measures:

- Realization of a low carbon society with 80% less CO₂ emission in Japan as was declared in the G8 L'Aquila Summit in 2009;
- Establishment of an economy and society that utilizes natural energy and hydrogen energy as its main source of energy;
- Establishment of CO₂ separation technology and its utilization;
- Shift from nuclear-oriented energy policy in Japan because of its high risk of destruction in case of earthquakes. Dependence on thermal power plants shall be reduced significantly;
- In consultation with the other nations in Asia and the rest of the world, Japan shall contribute to realize a world with a atmospheric temperature rise less than 2 degrees centigrade.

Mid-term measures (by around 2020)

- Investment mainly on energy development projects in the fields of solar power, wind, micro-hydropower, biomass thermal power, etc. should be developed to their maximum potential.
- Japan should conserve and sustain the use of marine areas where Japan has exclusive rights, which is six times as wide as its terrestrial land areas, in particular

by investing on the development of off-shore wind mills, wave energy power plants, ocean thermal energy conversion, etc. Hydrogen power shall also be developed.

- Japan should construct direct current grid of electricity from Hokkaido to Kyushu by government funding, for example, by utilizing the existing railway systems. Their operation should be commissioned to private electricity companies. The problem caused by the difference of the frequency cycle of 50 and 60 in the East and West in Japan should be solved. Smart grids should be established in all local areas. The idea of a direct current grid in Japan is the first attempt of a “Global direct current grid of electricity”, which was initially proposed by Honorary Chairman Junichi Nishizawa, one of the founders of this Forum.
- Japan should develop the technology to recover and use waste heat energy in low temperature, 40-60% of which is currently emitted without recovery in thermal power plants. This technology can be developed by using ocean thermal energy conversion.
- All railroads transportation should achieve zero-emission of CO₂, by utilizing the above-mentioned technologies to realize sustainable transportation.
- Investment in technological development projects for utilizing CO₂, such as Nobel laureate, Dr. Negishi’s project, should be made.
- A sustainable and comprehensive plan for using water resources, including hydropower stations, should be developed and implemented in every river basin, as soon as possible.
- The basic concept for the restoration plan shall be a compact city or smart city (We should not allow other concepts in principle). Cities devastated by the disaster should consider constructing eco-cities in a safe distance from the seashore, in compliance with the above-mentioned river basin plan.
- To secure a work force necessary to implement the above-mentioned restoration plans, and, to promote job creation, improve the food self-sufficiency rate, address the problem of unemployed elderly persons and solve the issues of marginal villages in remote areas, a senior citizens’ employment corporation that employs the elderly (over 60 or 65 years old) should be established. Older people shall be encouraged to work for agriculture or forest maintenance (for biomass resources supply) in abandoned farmlands or forests that the government borrows for use without rent to landowners, or other workplaces, including off-shore wind mills. Otherwise they

shall pay several thousand yen (tens of US dollars) per month.

- In Asia or at least in East Asia, a regional agreement on energy security should be discussed and concluded.

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