Fact Sheet on Japan's Nuclear Export to Vietnam

～Suffering of Fukushima must NOT be exported as Climate Change Countermeasures～

■ Project Outline:

Ninh Thuan 2 Nuclear Power Plant

- Ninh Thuan Province, Vinh Hai Commune, Thai Ang Village (20km north of Phan Rang city)
- 1 million kW x 2 Units
- 514ha (including 119ha plant site area, 36ha port area)
- Planned Operation of Unit 1 in 2021 and Unit 2 in 2022
- Scale of Project Finance: 1 trillion yen (US$ 13 billion)

※ Two Units at Ninh Thuan 1 nuclear power plant are scheduled for construction at Ninh Thuan Province, Fukh Jing Commune, Vinh Chuong Village. Russia has tentatively received an order for construction.

■ Economy and Energy Situation in Vietnam:

- Economic growth: 6.7%
- Domestic demand for electricity is projected to increase 10% annually from 2005 to 2020.
- Impending stress on electricity demand is the bottleneck of development.
- The construction of hydroelectric dams is reaching the limit.

■ Agreement for Nuclear Export between Japan-Vietnam:

1. Implementation of Feasibility Study (See note below)
2. Low interest and preferential loans are assumed by Japan Bank for International Cooperation (JBIC)
3. Provision of Secure and Advanced Technology
4. Technology Transfer and Personnel Training
5. Spent Fuel and Nuclear Waste Management
6. Fuel Supply

Note: F/S by the Japan Atomic Power Co. funded by the Japanese Ministry of Economy, Trade and Industry, "Low-carbon Power Generation Industry Research Project for International Expansion".

■ Surrounding Environment of Project Site:

- Adjacent to Nui Chua National Park
- Spawning grounds for Green Sea Turtle (endangered species), coral reefs, eco-tourism site
- Phan Rang City with a population of 180,000 within 20 km of the planned site
- Farming and fishery village with a stable and abundant lifestyle
  - Grapes, garlic, onion, apple
  - Rich fishery grounds
  - Shrimp culture and salt farming

Timeline

-2002: Implementation of Pre-Feasibility Study (by Japan Consulting Institute)

-April 2008: Vietnamese government announces the expansion of nuclear power generation of 1 million kW x 4 Units in 2020.

-May 2008: Nuclear Cooperation Agreement signed between Japanese and Vietnamese governments.

-June 2008: Adoption of the Atomic Energy Law at the third session of the 12th Vietnamese National Assembly (Effective on January 1, 2009).

-November 2009: Vietnamese National Assembly approves a plan to construct nuclear power plant.

-In 2009, The Japan Atomic Power Co. was selected for "Low-carbon Power Generation Industry Research Project for International Expansion" by the Japanese Ministry of Economy, Trade and Industry (METI).

-Feasibility study for the planned nuclear plant in Vietnam; study cost at 1.9 billion yen (US$ 25.7 million).

-October 2010: Intergovernmental Agreement made between Russian and Vietnam. The planned construction of 2 units at Ninh Thuan 1 in partnership with Russia.
Japan-Vietnam Summit Meeting. Japan was selected as a partner to construct 2 Units at Ninh Thuan 2.

-January 2011: Nuclear Cooperation Agreement signed between Japanese and Vietnamese Governments.

-September 2011: The Japan Atomic Power Co. and VietNam Electricity (EVN) enter into a contract to investigate the possibility of introducing nuclear power.

■ Concerns:

1. Non-disclosure of Public financed Research:
   Feasibility study in progress with a budget of 2 billion yen from the Japanese Ministry of Economy, Trade and Industry. Presently no release is scheduled for the results and terms of reference of the feasibility study.

2. Planned construction site being adjacent to spawning grounds of Green Sea Turtle:
   Vinh Hai Commune, Nihn Tuan Province is an area adjacent to Nui Chua National Park. As the Park holds valuable ecosystems such as spawning grounds for Green Sea Turtle and coral reefs, the effects of thermal effluent discharge from power plant will be devastating.

3. Issues over Construction and Operational Technology:
   It has been reported that concrete construction risk in Vietnam is 4 times greater than that of Japan, especially failure due to "reinforcement corrosion" being a serious issue. In 2007, the bridge girder of Can To Bridge (2.7 km), funded by Japanese ODA and under construction at the time, collapsed resulting in numerous deaths. Operational issues resulting in a number of accidents have also been reported. Hydropower release due to rise in water level was conducted without any warning to downstream areas and, hence, resulted in many deaths and injuries. Bulgarian risk management expert has pointed out that human resource development of nuclear construction personnel has been delaying significantly.

4. Bribery, Corruption and Lack of Governance:
   Major bribery incidents involving Vietnamese high officials have occurred during the construction of the Ho Chi Minh City East-West Highway. Other corruption cases have also been recurrent. In Vietnam, customarily Prime Minister approves the planned construction site, the Ministry of Science and Technology the construction and the Ministry of Industry and Trade the operation. However, International Atomic Energy Agency (IAEA) has recommended the establishment of independent regulatory body.

5. Uncertainty in Tsunami Countermeasures:
   Studies have shown that maximum 5m high Tsunami will reach the shore in case of 8.6M earthquake at Manila Trench. In the past, 8m Tsunami has been reported in the area. Tsunami countermeasures in breakwater construction and water pump and power generator installation have been unsecured. Additionally, geologists have pointed out the presence of 3 nearby geological faults.

6. High Population Densities and Uncertainty in Evacuation Plan:
   The capital of Ninh Thuan Province, Phan Rang City with a population of 180,000, is located approximately at 20 km from the planned site. The number of evacuees at the time of accident and the associated evacuation costs are estimated to be immense, however, feasibility of evacuation plan remains unclear.

7. Lack of Information Disclosure and Citizen Participation:
   In Vietnam, information disclosure and freedom of expression are constrained. According to the investigation by civil society and journalists, it has become increasingly clear that while public relations have been conducted on the necessity of nuclear power plants, no explanation was given on the disposal of radioactive waste and response to accidents.

8. Uncertainty over Spent Fuel Disposal Method:
   Although spent fuel requires semi-permanent supervision, disposal method remains nuclear unclear.

9. Opposition from Neighboring Countries:
   Considering the extended terrain of Vietnam from South to North, monsoon climate and others, the likelihood of radiation exposure in Thailand, Laos, Cambodia and other countries via atmosphere and rivers at the time of nuclear accident is high. And yet, information disclosure to these neighboring countries has not been scheduled. In Thailand, there is a strong opposition movement against any nuclear construction in Vietnam.

Japanese government's Nuclear Export Policy after Fukushima:

- ✓ August 5, 2011 Cabinet decision:
  "If other countries desire to adopt Japanese nuclear power technology, we believe we should provide those with the highest safety standard in the world"
- ✓ September 22 PM Noda at the United Nations High-level Meeting on Nuclear Safety and Security:
  "Japan stands ready to respond to the interest of countries seeking to use nuclear power generation... Japan has been supporting their (countries who have explored nuclear energy) efforts, including their improvements of nuclear safety. Japan remains steadfast in responding positively to their interest in our undertakings."
- ✓ October 3 At the AWG meeting in Panama:
  The Japanese government refused proposal to drop the option to include nuclear energy in CDM.

Japan experienced nuclear devastation from the atomic bombing of Hiroshima and Nagasaki , and also from the Fukushima nuclear accident. We, Civil Society Organizations sincerely hope that the government of Japan will lead the way to a worldwide phase out of nuclear energy and show an example of building a sustainable and peaceful society that is not dependent on nuclear power, so that human beings need never again suffer a catastrophe caused by nuclear power.

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