

Opening Address at the First Panel Meeting on the Role of Nuclear Energy for  
Sustainable Development in Asia, Forum for Nuclear Cooperation in Asia (FNCA)  
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Good morning, ladies and gentlemen: On behalf of Atomic Energy Commission of Japan, I am pleased to welcome you all to the first Panel Meeting on the Role of Nuclear Energy for Sustainable Development in Asia, which is planned based on the conclusion of the fifth coordinators meeting of FNCA, Forum for Nuclear Cooperation in Asia held in March this year in accordance with the guidance of the Ministerial Meeting of FNCA held in Okinawa last December.

Needless to say, energy is critical to virtually every form of economic activity, while access to secure and affordable energy supplies is a necessary pre-condition to enhancing the standard of living of populations in many economies. According to International Energy Agency (IEA), the world energy consumption is projected to increase by around 60% over the period from 1999 to 2020, much of it in the developing world. Some of the highest projected growth rates for energy are in south east and developing Asia. It is also predicted that, over the next two decades, the rapidly growing Asian economies will need to, in effect, duplicate their entire electricity supply networks to accommodate projected growth in energy demand.

At the same time, we should pay due attention to the fact that 80% of total energy consumption worldwide comes from fossil fuels used in conventional ways and this poses serious threats to human health and environmental balance, and undermines prospects of sustainable development. For example, particulate matter and other pollution from energy use threaten human health at the household and local level: on a large scale, the effects of a host of energy-linked emissions - including suspended fine particles and precursors of acid deposition - contribute to air pollution and ecosystem degradation: globally, emissions of anthropogenic green house gases, mostly from the production and the use of fossil fuels, are altering weather patterns. It is claimed by some experts that recent regional changes in climate, particularly increases in temperature, have already affected hydrological systems in many parts of the world.

Therefore, although it is true that energy policy have been mostly concerned by what happens within a country's border as each country has different economic, political and cultural characteristics, many countries have recognized that this is no

longer the case for them and that policies must now address cross border, regional and global imperatives, while still satisfying the requirements of local markets, political and legal institutions and industry characteristics. I believe that it is important in this context for the member countries of FNCA to have common understanding of key energy policy issues for specific countries relating to the sustainability across Asian economies.

It is often claimed that technological innovation is pivotal to the development of energy systems in ways that encourage sustainable development, as it is clear that with only currently available technologies there is no long-term energy system compatible with sustainable development. We know that the viable technical options for increasing energy services while decreasing their harmful side-effects include a) more efficient use of energy, especially at the point of end-use in buildings, electric appliances vehicles and production processes as well as at the electricity generation processes; b) increased reliance on renewable energy sources; and c) development and deployment of safe nuclear technologies.

However, technically optimal solutions will not result automatically in a business-as-usual environment. In order to bring about desirable innovation in each country's energy system, governments should look for ways to ensure that useful and promising knowledge is put to practical use by stimulating learning, cooperation, and knowledge shaping by developing an innovative climate, raising awareness, and encouraging user-supplier links. In other words, government should formulate and cultivate an innovation chain for energy system development in the country.

It is also important for government to develop the national/social capacity to create, mobilize, utilize, enhance and convert each country's skills, institutions and contexts to achieve specific desired socio-economic outcomes or energy supply-demand relations in keeping with sustainable development.

I hope that the panel meeting today and tomorrow will be meaningful for each member of FNCA to obtain hints for formulating such innovation chain and capacity to achieve sustainable development through technological innovation as a part of energy policy of each country.

Thank you all once again for coming to make joint efforts for these purposes.