



Enhancing Global Nuclear Energy Sustainability: Briefing on INPRO

Side Event during the 56th IAEA General Conference

Opening Address by Mr Alexander V. Bychkov

IAEA Deputy Director General for Nuclear Energy and INPRO Project Manager

19 September 2012

Room M4, Vienna, Austria

Distinguished Delegates to the General Conference,
Dear Colleagues, Ladies and Gentlemen,

Good morning! It is my pleasure to welcome you to the briefing on INPRO, the International Project on Innovative Nuclear Reactors and Fuel Cycles. This session focuses on the sustainability of nuclear energy. INPRO has an important role to play in a sustainable nuclear energy development and in fostering innovations through international cooperation.

First, it is my pleasure to welcome the speakers from Member States, who have agreed to join us today: Mr Sekhar Basu from India, Mr Kukharchuk from the Ukraine, and Mr Juhn from the Republic of Korea. I wish to express my congratulations to Mr Sekhar Basu, who has recently been appointed Director of the Bhabha Atomic Research Centre, and I thank all speakers for their participation and for sharing with us results and insights from some of INPRO's activities that aim at contributing to sustainable nuclear energy programmes.

Ladies and Gentlemen,

The world needs to produce huge quantities of energy in the coming decades to meet the needs of a growing population and to raise the living standards of billions of people who do not have access to cheap, plentiful electricity. The production of this energy at a reasonable cost, without environmental damage and in a safe and secure manner, is one of this century's most challenging undertakings.

Nuclear energy can make a significant contribution:

The factors that contributed to increased interest in nuclear power before the Fukushima accident have not changed. These include growing global demand for energy, concerns about climate change, unstable fossil fuel prices and security of energy supply.

While a few countries have decided to scale back, or even terminate their nuclear power programmes, many others are proceeding with expansion plans. In particular, the decision remains in many developing countries to introduce nuclear power to meet their growing energy needs.

Here INPRO has a key role to play:

The Project provides a holistic and global view of nuclear energy systems and relevant innovations. The key focus is on achieving global nuclear sustainability. INPRO's projects and studies assist Member States to develop technical and institutional innovations that can be incorporated into a nuclear energy system to reduce the risk of severe accidents during natural disasters.

The current fleet of reactors and the once-through nuclear fuel cycle use only 5% of the energy available from Uranium. In the future, a transition to a closed fuel cycle and a combination of thermal and fast reactors will extend the available fissile materials for hundreds of years while burning Plutonium and actinides. This will allow nuclear energy to reach its potential contribution to future sustainable energy supply scenarios.

INPRO studies show that collaboration among countries, in particular in the area of the nuclear fuel cycle, may play a crucial role in achieving sustainable nuclear energy systems.

Finally, I wish to inform you about some recent highlights from INPRO:

This year, we were able to welcome three new Members of INPRO: Malaysia, Romania and Vietnam. Altogether, the INPRO membership includes now 37 countries and the European Commission. I am pleased about the continuous interest of Member States and hope that several other countries will join in the near future.

In July, the INPRO Steering Committee met for its 19th meeting. The representatives of INPRO Members and of several international organizations confirmed good progress in implementing the INPRO Action Plan for 2012–2013. They identified priorities and support for individual INPRO projects, and made recommendations for current activities and the preliminary planning for 2014–2015.

One of INPRO's current key projects, SYNERGIES, is progressing well. The first technical meeting was held in June, and to date, some 25 Member States have agreed to contribute to this collaborative project that investigates how international collaboration can facilitate the transition to a globally sustainable nuclear energy system.

Two INPRO Dialogue Forums were held in July and August this year, under the IAEA Technical Cooperation programme.

The 4th INPRO Dialogue Forum addressed benefits and issues associated with regional cooperation in building sustainable nuclear energy systems. The 5th INPRO Dialogue Forum focused on Long-term Prospects for Nuclear Energy in the Post-Fukushima Era. It was the first such meeting hosted by an INPRO Member, the Republic of Korea. You will hear reports on both meetings during this session.

International cooperation remains an important aspect of INPRO's activities:

The INPRO Steering Committee made a recommendation to ensure good coordination with the Generation IV International Forum, GIF, the OECD/Nuclear Energy Agency, the European Sustainable Nuclear Energy Technology Platform and other international activities, such as the World Nuclear Association and the International Framework for Nuclear Energy Cooperation, IFNEC. I am pleased to see that INPRO's cooperation and interactions with these international organizations and initiatives are developing well and in a mutually beneficial way.

Ladies and Gentlemen,

Thank you for joining us today. I wish you a very interesting session and encourage you to participate in a lively discussion at the end.

Now I invite Mr Sekhar Basu to chair this meeting and to take the floor.

Thank you.