

# International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO)

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Technical Cooperation Project INT/4/142:  
"Promoting Technology Development and Application of Future Nuclear Energy Systems in Developing Countries"

Workshop on IAEA Tools for Nuclear Energy System Assessment for Long-Term Planning and Development

20-23 July 2009

IAEA (C04 Board Room), Vienna, Austria

The purpose of the workshop is to present to Member States tools and methods that are available from the IAEA in support of long-term energy planning and nuclear energy system assessments, both focusing on the sustainable development of nuclear energy. This includes tools devoted to energy system planning, indicators for sustainable energy development, the INPRO methodology for Nuclear Energy System Assessment (NESA) and tools for analysing nuclear fuel cycle material balance. The workshop also intends to obtain feedback from Member States on applying the tools, share experiences and lessons learned, and identify needs for IAEA support.



*48 participants from 41 Member States are attending the Workshop at the IAEA Headquarters (Photo: M.Gladyshev/IAEA)*

## Workshop Documents

- [PROSPECTUS](#)
- [Programme / Agenda](#)

[Last updated: 2009-07-17]

- [Draft Brochure](#): IAEA Tools and Methodologies for Energy System Planning and Nuclear Energy System Assessments
- [INPRO Methodology](#) for NESAs – Basic and Simplified Structure
- [Energy Indicators](#) for Sustainable Development

## Presentations made during the Workshop

- Opening Statement by [Mr Y. Sokolov](#), Deputy Director General, Department of Nuclear Energy, and INPRO Project Manager

### Session 1: Integrated Approach to Energy Planning and Nuclear Energy Development

- Conceptual framework of an integrated approach for long-term energy development and NESAs ([A.I. Jalal](#) / [R. Beatty](#))

### Session 2: Energy Assessment for Long-Term Planning

- Energy and sustainable development ([M. Howells](#))
- Methodology and tools for energy planning ([K.Y. Nam](#))
- Indicators for sustainable energy development ([R.A. Roehrl](#))
- Capacity building ([A.I. Jalal](#))

### Session 3: NESAs using the INPRO Methodology

- Introduction and Overview of the Methodology ([F. Depisch](#))
- INPRO Assessment in the area of Economics ([P. Florido](#))
- INPRO Assessment in the area of Infrastructure ([T. Mazour](#))
- INPRO Assessment in the area of Waste Management ([Z. Drace](#))
- INPRO Assessment in the area of Proliferation Resistance ([B. Moran](#))
- INPRO Assessment in the area of Physical Protection ([M. Gregoric](#))
- INPRO Assessment in the area of Environment ([S. Fesenko](#))
- INPRO Assessment in the area of Safety ([F. Lignini](#))
- Summary of lessons learned and benefits from case studies performed by INPRO Members ([R. Beatty](#))
- NESAs support package ([R. Beatty](#))

### Session 4: Case Studies and Future Plans

Experience from Member States:

1. Energy planning: Ghana ([J. Mawunyo](#)) and Vietnam ([Doan Phac Le](#))
2. Case studies using the INPRO Methodology: Ukraine ([E. Nearonov](#)) and Brazil ([O. Goncalves](#))

Future Plans:

1. Energy planning development tools ([A.I. Jalal](#))
2. INPRO Action Plan for 2010 and 2011 ([P. Gowin](#))

### Session 5: Additional IAEA–INPRO Tools to Support NE Deployment

1. Tools for Lifecycle analyses: DESAE code ([V. Tsibulsky](#)), NFCSS code ([G. Fesenko](#))
2. Application to the analyses of future scenarios on global vision/CPs GAINS and FINITE ([P. Villalibre](#))

### Session 6: Related Infrastructure Activities

- Nuclear infrastructure development for newcomers: Milestones document and INIR ([T. Mazour](#))
- Nuclear Security Concerns and Activities ([M. Gregoric](#))

### Session 7: Needs of Member States and Summary

- Statement by Ms [A. Cetto](#), Deputy Director General, Department of Technical Cooperation
- National and regional support from TC to MSs interested in using the IAEA tools for energy development and NESAs ([I. Videnovic](#))

#### Comments and Suggestions from Participants

- India ([A. Srivastava](#))
- Brazil ([O. Goncalves](#))
- Pakistan ([I. Ahmad](#))
- Belarus ([B. Popov](#))
- Russian Federation ([A. Sintsov](#))

### Exhibition

- Visual Presentations: [TC](#), [PESS](#), [INPRO](#)
- [Workshop Poster](#)

### Photos



### Background Information

- Planning & Economic Studies Section ([PESS](#)): Analysis for Sustainable Energy Development
- International Project on Innovative Nuclear Reactors and Fuel Cycles ([INPRO](#))
- Guidance for the Application of an Assessment Methodology for Innovative Nuclear Energy Systems INPRO Manual – Overview of the Methodology, [IAEA-TECDOC-1575 Rev. 1 \(2009\)](#)
- [INPRO Progress Report 2008](#)
- Other [INPRO Publications](#)

## General Information

- [Visa Information](#)
- [List of Hotels](#)
- [Vienna Transportation Information](#)
- Vienna Information on [www.wien.info](http://www.wien.info)
- [Guide to the Vienna International Centre](#)

## IAEA Responsible Officers

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Last updated: 29 July 2009