Human Resources Development to Planning Nuclear Power in Mongolia

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MONGOLIA

- Mongolia is developing country without nuclear power.
- Economic development in Mongolia has been limited by the harsh climate, scattered population and sizeable expanses of unproductive land.
- The infrastructure is not well developed, vehicular transport is slow. But our country is rich in mineral resources, particularly uranium resource.
The purpose of the state policy of Mongolia on exploitation of radioactive minerals and nuclear energy is deeply explore radioactive minerals resources, to become one of the leading country on exploitation, processing and exporting for peaceful purposes, further the utilization of nuclear energy in economy and social sector in extensive range and producing power through the introduction of technology friendly to human health and environment.
NUCLEAR ENERGY IN MONGOLIA

Nuclear energy is the sector of high intellectual potential and of high technology and developing dynamically in the world lately, exploitation of radioactive minerals and nuclear power is an important factor to ensure sustainable development and national security of Mongolia, to improve living standard of its people by producing low cost electricity and heat.
Human resources development will among the top priority tasks of the Mongolian government. With the limited human resources on radiation protection and application strategy, it will difficult to launch domestic education systems on nuclear engineering.

The establishment of an effective, competent and independent regulatory body should take consideration the country`s existing situation with respect to regulatory control.

The development of a national academic programme for the education of the necessary scientists, engineers and other technicians to support technical research would also be expected to be in place as part of the commitment to the development of the required national capabilities.
Research, training, Human Resource

- To define priority objectives for research and development in order to meet the needs of study, research, technology development and practical demands of nuclear energy and radioactive minerals.
- To ensure integrated activities of radioactive minerals and nuclear research and technology scientific research institutions, universities and business sector.
- To establish National nuclear research and technology institute responsible for radioactive minerals exploration, exploitation and processing and conduct of research for nuclear power plant, nuclear high technology and creation of information data network and training of specialists.
Research, training, Human Resource

- Scientific research institutions and universities will be responsible in conducting fundamental and applied study and development activities in the field of radioactive minerals and nuclear physics, financed by science and technology fund.
- To study the possibility of obtaining nuclear research reactor in order to conduct nuclear physics fundamental and applied researches and to develop high technology and prepare experts.
- To train national specialists in foreign countries in the field of radioactive minerals, nuclear energy and high technology, in accordance to specific national program.
- To increase the involvement of national scientists and experts in the international and foreign projects designed for radioactive minerals and nuclear energy.
HRD Strategy Model

- **Formulation of Strategic Objective (Targets):**
  - To enhance safe and reliable operation of NPPs from the improvement of personnel’s competency

- **Review of Current Manpower:**
  - Quantity and quality
  - Manpower related systems (criteria on selection, training system, and so on)

- **Long-term Organizational Structure Development:**

- **Forecast of Future Manpower Demand:**
  - Using Forecasting Model (Markov Chain’s Model)
  - Manpower requirement planning

- **Implementation of Action Plans for HRD**
HRD Strategy Model

- Projects on HRD
  - (Including Budgets)

  Conducting education and training systematically

- Development of HRD infrastructures
- Improvement of laws and systems
- Improvement of collaboration frameworks for HRD (network, national and regional)
HRD Strategy Model

- NPP operational personnel (operators, engineering, mechanical, electrical, I & C, chemistry, fuel handling,
- Regulatory personnel (Assessment, license, and inspection personnel) QA & QC, safety, and health physics staffs)
- R&D personnel
- Design and manufacturing personnel
- Instructors
Implementation Strategy

- Review of strengths, weakness and concerns
- Review of personnel qualification and training requirements (selection, training, etc.)
  - Forecasting future manpower requirements
  - Set up of systematic approach to training (organizations, facilities and equipment, instructors, training programs)
  - Enhancing collaboration framework with related organizations (national and regional cooperation)
- Implementing HRD projects on action plans
- Improving human resources management and support system
Thank you for attention