COUNTRY REPORT - Bangladesh

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After independence in 1971, Bangladesh became a member state of IAEA in 1972. In 1973, Bangladesh Atomic Energy Commission (BAEC) was formally established through a Presidential order. Bangladesh is committed in peaceful uses of atomic energy and since then it has been utilizing atomic energy solely for the peaceful national purposes. BAEC operates under the Ministry of Science and information and Communication Technology (MOSICT). In order to fulfill a part of the national needs, by this time BAEC has taken a number of medium and long term nuclear plans. BAEC is directly involved with the nuclear programs in the field of nuclear science and technology (S&T) of Bangladesh and identified the human resource development particularly in this area as one of the critical factors toward achieving a developed nation.

Strategy of human resource development:

The strategy of human resource development (HRD) of BAEC is demand-driven in nature and is based on the national nuclear research and development (R&D) programs. HRD focuses mainly on developing skilled, competent, effective and well-qualified nuclear scientists on its medium and long term plans as it were the organization and the individual scientist can accomplish his assigned work goals. The plans include health, industry, agriculture, environment, electronics and instrumentation, radiation control and safety, waste management, water management, material science, computer science, etc. Very recently, the government of Bangladesh has approved the National Energy Policy (NEP). The NEP identified nuclear power option as one of the prudent solution of the severe electricity crisis prevailing in the country. NEP foresees the implementation of two units of medium sized nuclear power plants by 2015 and 2017.

National policy on HRD:

HRD of BAEC includes the interior exchange of knowledge, co-ordination, local and foreign training, higher education, etc. It usually arranges three months of long orientation course on its nuclear plans for the newly recruited scientists. Specialized short duration courses for

students involving lectures, practical classes, workshop, seminar and conferences are arranged on NDT, radiation protection for radiation control of X-ray and various nuclear installations, medical technology, computer training, etc.

BAEC has been playing a key role in the facilitation of the research initiatives of various Universities through sharing its resources with both academicians/researchers and innumerable students pursuing research in connection with their M.S. and M.S. leading Ph. D. Many scientists of the BAEC have also availed of the facilities and earned academic degrees from different universities.

BAEC scientists are also granted study leave for M.S. and Ph. D. on self arranged fellowship, assistantship and scholarship. One of them is MONBUSHO scholarship offered by Japan Government. BAEC is pursuing to affiliate its Nuclear Training Institute with the National Universities for pursuing higher academic degrees on Nuclear Science & Technology.

Roles of international cooperation for HRD:

HRD is essential for the successful implementation of ongoing and future nuclear plans of BAEC. BAEC scientists usually avail the training program offered by the government of Bangladesh and other agencies like IAEA, MEXT, FNCA, DAAD, Colombo Plan, ICTP, CIDA, IDB, etc.

Progress and implementation plan of ANTEP:

BAEC is placing its part of HRD requirements in ANTEP. The needs are covering ongoing and future nuclear plan such as Radioactive Waste Management, Radiation safety, Radioisotope Production, Research Reactor, Neutron Beam Application, etc. Some of the requirements are being fulfilling through MEXT nuclear researchers exchange program.

HRD necessary for Nuclear Power:

Recently, the Government of Bangladesh has approved a development project entitled, "Accomplishment of necessary activities for implementation of Rooppur Nuclear Power Plant (RNPP)" during the financial year 2008-2011. The objective of the project is to finalize all necessary activities aiming to start construction of the power plant at 2011. As per decision between IAEA and Bangladesh, IAEA approved a project entitled "Establishing nuclear power" in Bangladesh with the objective of capacity building for embarking on first unit of RNPP by 2011. Bangladesh expects to set up two Nuclear power plants (NPPs) in the national grid by 2020. Beyond 2025 the nuclear share would be 15-20% as envisaged in the NEP. By this time, the site safety report, the BIS document, nuclear regulatory infrastructure, HRD and other necessary activities have been undertaken by BAEC for implementation of the NPPs.

BAEC wishes to strengthen nuclear human resources as part of sustainable national development. Qualified human resources are essential in various nuclear fields such as

Engineering, instrumentation and control, water management, administration, security, reliability and successful implementation of the RNPP project. Currently a core team of dedicated scientists, engineers and technical staff are being maintained with much enthusiasm. Systematic expansion of human resources is an important prerequisite to speed up the NPP program of BAEC. Gentle approach for HRD internationally is due to comparatively lower GDP and budget constraints and this approach may be considered for other developing countries those have a vision of introducing NPP for power generation. In this regard, we hope FNCA-HRD will play an important role for the development of skilled manpower for BAEC NPPs through its HRD activities. BAEC believes that increased co-operation and intensified sharing of nuclear knowledge on nuclear power and other nuclear applications could help Bangladesh to overcome major obstacles to the sustainable use of nuclear technology.