

## **Country Report of the Philippines**

By

**Dr. Estrella F. Alabastro**

**Secretary**

Department of Science and Technology

Mr. Chairman

Excellencies

Distinguished Delegates

Ladies and Gentlemen:

It is a great pleasure and an honor for me to participate in the Fourth Forum for Nuclear Cooperation in Asia. On behalf of the Philippine Government, my delegation and I thank the Government of Japan for inviting us to this Forum. It gives me great pleasure to have the opportunity again to share our experience in harnessing science and technology particularly nuclear technology to uplift the lives of the general populace.

Mr. Chairman

The development agenda of the Philippine Government is strongly anchored on the goals of economic growth accompanied by social equity and ecological responsibility for the present and future generations of Filipinos.

The national science and technology policies and programs support this development agenda by addressing pressing national problems, supporting industry especially the small and medium scale enterprises (SMEs), accelerating technology transfer and utilization, supporting human resource

development and S & T infrastructure, and promoting/popularizing science and technology.

The Department of Science and Technology (DOST) is giving priority to two important programs : The **Small Enterprise technology Upgrading Program or SETUP** and **Technological Innovation Commercialization Program or TECHNICOM** . **SETUP** is a nationwide program designed to upgrade the productivity of small and medium enterprises (SME) through technology application/upgrading. Under this program, enterprises in the regions/provinces, whether in the agricultural, manufacturing or service sector are being provided with the appropriate technology upgrading assistance and services in an integrated manner. The socio-economic benefit accruing from this program is the development of the countryside.

**TECHNICOM** is designed to facilitate technological innovation enterprise spin offs. It is a holistic and comprehensive package of focused assistance to fast track the commercial scale adoption or utilization of innovations in priority areas. The program hopes to stimulate technological innovation, strengthen the R & D capacity of SMEs, increase private sector adoption and commercialization of government-initiated R & D activities, and maximize benefits from government investments in R & D activities.

Mr. Chairman

Nuclear science and technology is an important component of the national S & T system, and will continue to play a significant role in the socio-economic and technological development of the country. It has developed its niche in the priority areas of agriculture, health, biotechnology, earth and

marine sciences, energy, materials science, manufacturing and process engineering and environment. Allow me to cite some developments relating to these applications.

In the agricultural sector, our Department of Agriculture has just constituted an Experts Group for the evaluation of the Commercial Use of Irradiation for Agricultural Food Products. Chaired by the Philippine Nuclear Research Institute (PNRI), the Experts Group has been tasked initially to evaluate the commercial application of irradiation as a quarantine treatment for Philippine fruits. In the area of mutation breeding, the PNRI conducted an Open Lecture in conjunction with the Workshop of the FNCA Mutation Breeding project last September 2003. As a result of its participation in the Open lecture, one leading ornamental company in Mindanao has used our Irradiation Facility.

In the health sector, more nuclear medicine laboratories, radiotherapy centers, and tissue banks have been established in both private and government hospitals. A new medical cyclotron and PET center was inaugurated in 2001 in a private hospital, and has since served the needs of cancer patients. New radioisotopes such as Rhenium-188 are now being tested for special types of cancer with the assistance of the IAEA. Philippine participation in the FNCA Project on Radiation Oncology is facilitating the development of the best protocols in the treatment of our cancer patients, particularly those afflicted with uterine cervix cancer and nasopharyngeal cancer.

On the environment, the Philippines has led a regional effort to provide a more sensitive , faster, and cheaper assay of saxitoxin, the key toxin in harmful algal blooms. The Philippines is upscaling its procedure for the radiolabeling of the toxin. Through the use of nuclear and analytical techniques, the PNRI maintains a database on fine particulate data in Metro Manila, the first of its kind in the country, which can be used to obtain information on the major sources of pollution. Through isotope techniques, characterization of the groundwater systems was accomplished for Davao City, a city envisioned to be the premier socio -economic and tourism growth center for the whole of Mindanao. Such information could be used to provide data to decision makers and water managers for delineating watershed protection zones and undertaking preventive measures to abate drinking water quality degradation.

These are only examples of our inroads in nuclear science and technology. We will continue to promote the applications of nuclear technology in our priority areas of concern where it has the added advantage over conventional technologies.

Mr. Chairman

Trained manpower is an important element for the successful and sustainable implementation of long-term national nuclear programs. The Philippines' HRD strategy will place a strong emphasis on the following:

- 1) nuclear science & technology education in schools and universities (nuclear S & T for the young generation,
- 2) role of international cooperation,

- 3) new techniques for education and training,
- 4) preservation of expertise.

With regards to international cooperation, the Philippines reiterates its proposal for the sharing of expertise in the region, making extensive use of IT or cyberlearning. The Philippines also supports all the recommendations of the FNCA 2003 Workshop on HRD, which includes the proposal that the Scientist Exchange program of MEXT be expanded to include M.S. and Ph.D. academic programmes in the nuclear field.

Mr. Chairman

The FNCA projects which we are participating in are progressing according to the project milestones. The Philippines would like to reaffirm her strong commitment to the FNCA. In this regard, we would like to offer to host the Workshop on Radiation Oncology in 2004, and the Workshop on Nuclear Safety Culture in 2005. We would consider it our privilege to host the 9<sup>th</sup> FNCA in 2008.

In conclusion, we would like to state that we firmly believe that nuclear science and technology provide unique inputs towards providing a better quality of life for the Asia and Pacific region, especially the developing country member states. The sustainability of nuclear science and technology in the region will depend to a large extent on the open and forthright cooperation among the countries in the region. The FNCA has proven to be a mature vehicle for fostering such cooperation.

It is our hope that it will be the continuing resolve of the FNCA participating countries to contributed to its continue growth and strength.

My wishes for a successful Meeting.