



# PakAtom

Newsletter of the Pakistan Atomic Energy Commission

September-October, 2009

Dr. Ansar Parvez, Chairman, PAEC addresses 53<sup>rd</sup> IAEA General Conference as head of Pakistani delegation

## Pakistan committed to nuclear non-proliferation, has an immaculate safeguards record

**Calls for non-discriminatory criteria for international cooperation for peaceful applications of nuclear technology by every state**

Seeks developed world assistance to further develop its nuclear power generation plan

Pakistan is committed to nuclear non-proliferation and our track record on Agency safeguards has been immaculate. Pakistan believes that the global non-proliferation regime must be strengthened on the basis of moral, political and international commitments undertaken by states. There is a need to develop a non-discriminatory criteria for international cooperation to afford every state its right to peaceful applications of nuclear technology, particularly in nuclear power generation.

This was stated by Dr. Ansar Parvez, Chairman, Pakistan Atomic Energy Commission while addressing the 53<sup>rd</sup> International Atomic Energy Agency (IAEA) General Conference, held in Vienna, Austria, from 14-18 September 2009, as head of Pakistani delegation.

**We express our deep appreciation for the valuable assistance provided by the Agency in the field of nuclear safety and security. We also believe that the IAEA should take larger initiatives to facilitate construction of nuclear power plants in Member States on**



*Chairman, PAEC, Dr. Ansar Parvez addressing the 53<sup>rd</sup> IAEA General Conference in Vienna, Austria.*

**a non-discriminatory basis. This would contribute to economic growth of the countries and economic growth for all, and that is the catalyst we need to eradicate the menaces we face today, the head of Pakistani delegation stated.**

Pakistan has long been a strong advocate of promoting and harnessing nuclear technology for progress and prosperity of all. Let me point out to this august audience that Pakistan signed the contract for the

first nuclear power plant in the mid-sixties when very few developing countries had even thought of harnessing nuclear energy. This plant, KANUPP, was connected to the grid in 1972. We take care of all the front-end requirements of the fuel cycle. Our second plant, the 300MW C-1 was commissioned in 2000 with Chinese assistance. The IAEA played a major role in assessing the design and operational safety of this plant, which is now operating safely. Our third plant, C-2 is nearing completion, Dr. Ansar Parvez informed.

Pakistan looks forward to the Agency and to the developed world for assistance in the further development of its nuclear power generation plan, so that this clean source of electrical power could be exploited in an energy starved country, he stated.

**Pakistan has also developed programs around application of ionizing radiations and radioisotopes for the well-being of its populace. A typical example is that of the 13 cancer hospitals which Pakistan Atomic Energy Commission is running across the country, where every year about half a million patients are provided diagnostic and therapeutic services, most of them free of cost. Another 5 such cancer hospitals are under construction, the head of Pakistani delegation informed.**

The resurgence of interest in nuclear power comes with an immense challenge not only for the nuclear industry but also for the IAEA as it is expected to play a guiding role in promoting an equitable access to nuclear technology, materials and equipment, he said.

**Alongside the inception of its atomic energy development program, Pakistan has recognized that ensuring nuclear safety and security is of vital importance. In these areas, Pakistan continuously strives to follow existing international**

**standards and practices and has based its national regulations on the Agency's Nuclear Safety Standards. The Agency's guidance documents on the physical protection of facilities and materials, and on the safety and security of radioactive sources, are being used as a basis for inspection and enforcement, Chairman, PAEC informed.**

**Appreciating the Agency's Technical Cooperation Program, Dr. Ansar said "This program has brought tangible benefits to many developing Member States. IAEA's programs on human resource development, expert services, fellowships, training courses and equipment supply are the key components of the technical cooperation activities that ensure impact and sustainability. We in Pakistan have greatly benefited from such interactions not only in the area of nuclear power but also in other peaceful applications of nuclear energy, which include agriculture, hydrology, medicine and industry. We strongly support and appreciate the Agency's efforts in improving the quality of its technical cooperation programs, and making them compatible with the changing requirements and needs of the Member States, against the odds of resource constraints. Needless to say, these activities**

**should be further strengthened by the provision of sufficient resources and continual enhancement of their effectiveness. For its part, Pakistan will continue to contribute by sharing its experience, offering training placements at its educational and R&D centres whenever requested and through providing the services of experts".**

**He paid tributes to outgoing IAEA Chief saying "Please allow me to pay tribute to the Director General, H.E. Dr. Mohamed ElBaradei who has led the Agency with distinction and commitment throughout his rather eventful tenure, and he has rightfully earned our high praise and full appreciation, demonstrated by winning a Nobel Prize for the Agency".**

**Felicitating the incoming Director General, IAEA, he said "I would like to convey my warmest felicitations to H.E. Ambassador Yukiya Amano for his election to the onerous post of Director General. His experience, knowledge and diplomatic skills, will be instrumental in enhancing the valuable role of IAEA towards the peaceful application of nuclear technology, while maintaining a strong, impartial and professional organization, sensitive to the needs and expectations of all member states - particularly the developing nations who have modest programs".**

## Pakistan elected to IAEA Board of Governors

Pakistan has been elected unopposed to the Board of Governors of the International Atomic Energy Agency (IAEA) for the term 2009-2011.

Chairman, Pakistan Atomic Energy Commission (PAEC), Dr. Ansar Parvez will represent Pakistan on the IAEA Board of Governors during the new term.

The election was held during the Fifty-third IAEA Annual General Conference in Vienna (Austria) from 14-18 September 2009.

Pakistan has previously served on the IAEA Board for sixteen terms, and has an extensive experience for the position where it has consistently advocated the interests of the developing countries.

Pakistan's election to this highest policy making body of the Agency is taken as an endorsement by the international community of the peaceful nuclear program being pursued by it and also reflects the respect of the member countries for the position articulated by it.

The Board is the executive organ of the Agency. It considers all major questions including applications for membership and the Agency's program of work.

It approves the Agency's Annual Report and the budget under its own authority. The Board also approves all safeguards agreements, important projects, safety standards and technical assistance grants to Member States.

# Presentation by Member (Physical Sciences) on Progress and Activities of PAEC Research Program

A presentation by Dr. Shoaib Ahmad, Member (Physical Sciences) was given regarding progress and activities of PAEC Research Program on 14<sup>th</sup> October 2009 in the PAEC HQ auditorium. Dr. Ansar Parvez, Chairman, PAEC all the Members of the Commission, concerned Director Generals and Directors participated.

Mr. Javed Iqbal Khawaja, Secretary, PAEC started the deliberations by inviting Qari sahib to recite few verses from Holy Quran. Chairman informed the audience that contrary to past practice, in which each Member used to brief the Commission's Meeting regarding progress of work in his respective domain in very short time (may be 10-15 minutes), he desired that each Member might give an hour long talk before a full house of top management of PAEC. It would provide an opportunity to all concerned to get acquainted with the progress and development in all areas, which may in turn culminate into better and fruitful interaction among different PAEC centres. This talk was first of such series. He hoped that the new experiment will turn out to be more useful and productive.

After brief remarks by the Chairman, Member (Physical Sciences) took the floor. He mainly focused on the R&D work of Pakistan Institute of Nuclear Science and Technology (PINSTECH) and Pakistan Institute of Engineering and Applied Sciences (PIEAS) over last many years. He described the R&D achievements of PINSTECH in a variety of thematic areas such as environment, hydrology, materials and energy. However, he emphasized that a lot more work is needed to be done in these areas. PINSTECH's contribution in international pool of knowledge in terms of international publications during last four decades was pointed out. PINSTECH interaction with PIEAS and other national universities for human resource development, by supervising MS, M.Phil and Ph.D. students, was mentioned. He highlighted the contributions of PINSTECH in a number of PAEC projects during last two to three decades. He also praised the commendable contribution being rendered by PIEAS in the development of human resource assets for not only PAEC establishments but other strategic organizations also.

PINSTECH and PIEAS, which needed improvements. He advised PIEAS to induct adjunct professors from abroad, to invite foreign scholars as faculty members and to support PAEC programs. For PINSTECH, he suggested to sign MoUs with local and foreign universities/ institutes and to prepare a yearly scientific calendar for holding conferences, schools, workshops and seminars. PINSTECH should proceed towards commercialization.

He identified grey areas both in



***Dr. Shoaib Ahmad, Member (Physical Sciences), PAEC making a presentation regarding progress and activities of PAEC Research Program. First row, sitting (L to R) Dr. Abdul Rashid, Member (Biosciences), Mr. Zia ul Hasan Siddiqui, Member (Power), Dr. Ansar Parvez, Chairman, PAEC, Mr. Ghulam Nabi, Member (Tech), Mr. Mansoor Ali Sheikh, Member (Finance), Mr. Muhammad Naeem, Member (NFC) and Major General (R) Syed Shahid Mukhtar Shah, Member (Admin).***

# PAEC's Nuclear Institute for Food and Agriculture (NIFA) organizes 1<sup>st</sup> training course on

## “Applications of Stable & Radioactive Isotopes in Food, Agriculture and Medicine”

A one-week national level 1<sup>st</sup> Training Course on the “Applications of Stable & Radioactive Isotopes in Food, Agriculture and Medicine” was conducted from October 5-9, 2009 at Nuclear Institute for Food and Agriculture (NIFA), Peshawar. NIFA is one of the four agricultural establishments of Pakistan Atomic Energy Commission.

The course was designed to acquaint the participants with theoretical and practical aspects of using isotopes in food, agriculture and medicine. Apart from lectures in the specialized fields, the course provided the participants a practical exposure to various on-going research projects at NIFA.

The purpose of this training was to bring together stakeholders from different communities and disciplines (including food, agriculture, medical and basic sciences) to discuss the country's current and future needs for stable and radioactive isotopes. Understanding of the application of stable and radioactive isotopes would help the participants understand the mechanisms of processes they are interested in. The course was organized by Dr. Ihsanullah, Deputy Chief Scientist/Head Food Science Division.

A total of 36 trainees representing various PAEC establishments, R&D organizations and universities from all over the country participated in the course.

The course was opened by the NWFP Minister for Agriculture, Arbab Muhammad Ayub Jan. Dr. Ihsanullah talked on the Introduction of Training Course. In his welcome address, Director NIFA, Dr. Farooq-e-Azam highlighted the salient achievements of the institute and its contribution in the food and agriculture sector of the province. Member (Biosciences), PAEC, Dr. Abdul Rashid presented in



*The Minister for Agriculture, NWFP, Arbab Muhammad Ayub Jan (centre) presiding over the inaugural session of the training course at NIFA Auditorium. To his right are Dr. Abdul Rashid, Member (Biosciences), PAEC, Dr. Ihsanullah, Course Organizer, and to his left are Dr. Farooq-e-Azam, Director, NIFA, and Dr. Mohammad Rahim, D.G. (Extension) NWFP.*

detail the “Role of PAEC in Agriculture and Health”. The chief guest, Mr. Ayub Jan appreciated the quality of the course and role of NIFA in organizing such type of courses regularly for the last 27 years.

During the course, twenty lectures were delivered in eight technical sessions. Majority of the faculty members were from NIFA.

The experts from the institute included Dr. Farooq-e-Azam, Director, Dr. Ihsanullah, Head FSD, Mr. Fazal Mehmood, DCS, Dr. Abdus Sattar Khan, Head ED, Dr. Aurang Zeb, DCS, Mr. Haider Khan, PS, Mr Iftikhar Ali, PS and Dr. Khanzadi Fatima Khattak, SS.

The resource persons from other PAEC establishments made presentations on “Role of Isotopes in Environmental/Industrial Biotechnology” by Dr. Zafar M. Khalid, Director NIBGE, “Role of Isotopes in Agriculture -A Review of NIA” by Mr. M. Afzal Arain, Director NIA, “Use of Stable Isotopes in Human Nutrition” by Dr. Rakhshanda Bilal, Director (Tech), PAEC “Use of Isotopes in Molecular Biology/Biotechnology” by Dr. Shafqat Farooq, Director (Tech), PAEC and

“Application of Stable Isotopes in Food, Agriculture and Medicine” by Mr. Zahid Latif, PS, PINSTECH.

On October 08, the participants visited PAEC's Institute of Radiotherapy and Nuclear Medicine (IRNUM), where Dr. Safoora Shahid, Director IRNUM, Ms. Hahida Nasreen, DCS, Mr. Abdus Saeed Shah, PS and Dr. Mohammad Rauf, PMO covered various aspects of “Use of Radioisotopes in Nuclear Medicine and Radiotherapy” in their talks followed by a detailed visit of the labs of the institute.

Specialized lectures on “Mass Spectrometry and Its Uses in Isotopes Identification” and “Uniform Fine Particles of Inorganic Compounds as Radioisotopes Carrier” were delivered by Prof. Dr. Fida Mohammad, GIK Institute, Swabi and Prof. Dr. Ikram ul Haq, NCE in Physical Chemistry, University of Peshawar. Each lecture was followed by question/answer session and lively discussion.

The course was concluded by Governor, NWFP, Mr. Owais Ahmad Ghani, on October 09, 2009.

*(For the details of the concluding ceremony, please see page-8).*

# Training Course Conducted by Atomic Absorption Spectrometry Laboratory, Chemistry Division, PINSTECH

A two-week training course on "Theoretical and Practical Aspects of Atomic Absorption Spectrometry" was conducted by Atomic Absorption Spectrometry Laboratory, Chemistry Division PINSTECH from 27<sup>th</sup> July-7<sup>th</sup> August 2009. Scientists from different PAEC establishments (D.G. Khan, NIAB, NLP, C-2 Kundian and PINSTECH) attended the course.

The course was inaugurated by Engr. Nasrullah Khan Qazi, DG, PINSTECH and was conducted by Director Science and Head Chemistry Division.

Director General, PINSTECH highlighted the multidisciplinary role of the institute and pointed out the R & D activities of the Chemistry Division and its recognition at national and international level.

He also mentioned that such events may evolve collaborated research activities among the participating organizations and suggested that the participants of the course should disseminate the knowledge gained, among the colleagues after going back to their respective establishments.

The participants were trained on the technique, through fourteen technical



*(L to R) Dr. Nasir Khalid, Dr. Sohaila Rahman, Course Coordinators, Chemistry Division, PINSTECH, Dr. Muhammad Mufazzal Saeed, Head Chemistry Division, PINSTECH, Engr. Nasrullah Khan Qazi, Director General, PINSTECH and Dr. Jamshed Hussain Zaidi, Director Science, PINSTECH.*

sessions. In these technical sessions, eight presentations were made on theoretical aspects and ten practical hands-on-training sessions were offered on the adoption of different methodologies for analysis to encompass the varied nature of samples such as drinking water, soil, complicated matrix of plastics, seawater and human body fluids. The resource persons of the course were Dr. Nasir Khalid, DCS and Dr. Sohaila Rahman, PS.

## Breast cancer awareness program at PINUM

To create awareness for early detection of breast cancer in the public as well as doctors, a special breast cancer awareness program has been started at PAEC's Punjab Institute of Nuclear Medicines (PINUM). In this regard, Breast Clinic is held on every Tuesday. About fifty patients are screened for breast carcinoma in every breast clinic. Females are taught self breast examination, and where needed, Ultrasonography, Mammography and FNAC are done and Biopsies are taken.

To create awareness among general practitioners, a special program was held in PINUM auditorium on 15-08-2009. About sixty doctors from the city

as well as periphery participated in this program.

In his lecture, Dr. Abubakar Shahid, Director, PINUM told that breast cancer is the most common cancer in females. When diagnosed in late stage, it has high morbidity and mortality. But if it is diagnosed at early stage, the management is very effective and patients can be cured of their disease.

He described important points needed to be kept in mind by doctors while examining patients with breast problems. He emphasized that all females with suspicion of lump in breast, retraction of nipple or bloody

discharge from nipple should be thoroughly investigated for the possibility of breast cancer.

He explained to the audience about the facilities available at PINUM for diagnosing and treating breast cancer. He told that about 08-10 patients get chemotherapy daily at this Institute and the number is rising day by day.

Later, an interactive discussion session was held. PINUM expert panel answered different questions asked by the doctors. Participants highly appreciated this awareness program and stressed the need to hold similar sessions in future.

## Chairman's Assignment Abroad

- Dr. Ansar Parvez, Chairman, PAEC led Pakistan delegation to the 53<sup>rd</sup> Annual General Conference of IAEA held in Vienna (Austria) from 14-18 September 2009.

## Assignments of PAEC experts abroad

- Mr. Hamid Mahmood, Senior Director, Directorate of Nuclear Power Engineering-Structures (DNPEs), Islamabad undertook Mission as an IAEA Expert to conduct a workshop on Site Selection and Evaluation for NPPs at Cairo, Egypt from 02-06 August 2009.
- Dr. Naseem Begum, Deputy Chief Medical Officer, IRNUM, Peshawar is undertaking assignment as an IAEA Expert to assist IAEA in the provision of Technical Expertise in the field of Radiotherapy and Technical Cooperation Projects for a period of 03 months from 01 September 2009 to 30 November 2009.
- Mr. Hamid Mahmood, Senior Director, Directorate of Nuclear Power Engineering-Structures (DNPEs), Islamabad carried out Advisory Mission as an IAEA Expert in relation to Site Selection and Evaluation for NPPs at Nigeria Atomic Energy Commission, Abuja, Nigeria from 25-30 October, 2009.

## Assignment as KANREP COG

- Mr. Abdul Hameed Qureshi, Deputy Chief Engineer, Karachi Nuclear Power Complex (KNPC), Karachi proceeded abroad on 16 August 2009 for undertaking assignment as KANUPP Representative with Candu Owners Group (COG) Office, Toronto, Canada for a period of 6 months.

## Posting in Pakistan Mission abroad

- Mr. Ahmad Mumtaz, Senior Director, ASAD, has been posted as Technical Liaison Officer with the diplomatic status of Minister (Technical) in the Embassy of Pakistan, Vienna (Austria) for a period of three years w.e.f 30-07-2009.

## Visits of foreigners to Pakistan

- Three Experts from People's Republic of China namely Professor, Dr. Lihua, Professor Dr. Zifu He and Professor Dr. Baoli Qiu visited NIAB and NIBGE, Faisalabad on 25

August, 2009. Their visit was in response to the recently signed MoU on Development of Bt Hybrid Cotton in Pakistan, during the visit of President of Pakistan to China earlier this year.

- Mr. Laurent Stricker (French), Chairman, Main Governing Board, WANO and his Advisor Mr. Remi Laffin (French), Mr. Ichiro Takekuro (Japanese), Chairman, WANO-Tokyo Centre along with Mr. Takashi Shoji (Japanese), Director, WANO-Tokyo Centre visited PAEC HQ, Islamabad on Saturday, 22 August 2009 for having meeting with Chairman, PAEC.
- Mr. Andreas Weber (German) is currently visiting INMOL, Lahore for a period of two months from 07 September, 2009 for installation of Dual Energy Linear Accelerator.
- Mr. Karl-Heinz Zmijewski, Mr. Thorbjorn Olof Waxin and Mr. Rolf Dennis Soderberg, GE Engineers (Sweden) visited INMOL, Lahore for one month from 08 September, 2009 and Mr. Le Van Phuc (French), GE Engineer visited INMOL, Lahore from 14-17 September, 2009 for installation of PET CT/Cyclotron.
- Mr. Huang Yaoxin, Director General, National Center for Efficient Irrigation Engineering and Technology Research, Xinjing, NCEIXJ, Mr. He Linwang, Senior Consultant, Mr. Li Fuxian, Senior Irrigation Engineer and Mrs. Li Huijuan, Senior Engineer (Translator) from NCEIXJ, People's Republic of China visited NIAB, Faisalabad on 19 September 2009 for Strengthening Cooperation with China in the field of Drip Irrigation

Technology.

- Mr. Raul Martin, Project Manager, Mr. Daniele Bonicelli (Italian), Mr. John Ciantar (Maltese) and Mr. Monti Azelio (Italian) Commissioning Supervisor of M/s ASTER, Italy are carrying out Mission at KNPC, Karachi from 07 October 2009 to 31 December 2009 for Commissioning of Nuclear Desalination Demonstration Plant.
- Prof. Dr. Toru Fujiwara and Dr. Kyoko Miwa (Japanese) from Biotechnology Research Centre, University of Tokyo, Japan visited NIBGE, Faisalabad on 07 October 2009 and also met Member (Bio-sciences) for discussing Academic/Research Collaboration opportunities.
- Mr. Mao Changxiang, Chinese Academy of Agricultural Sciences (CMS), People's Republic of China visited NIBGE, Faisalabad and NIA, Tandojam from 08-16 October, 2009 for Rice Trials under GSR Project and Hybrid Rice Training Workshop.

## Appointments Abroad

- Dr. Muhammad Naeem, Director, CENUM, Lahore is currently on appointment as Registrar, Nuclear Medicine in Department of Radiology, Al-Jahra Hospital, Ministry of Health, Kuwait for a period of two months from 1st September, 2009 to 31 October, 2009.
- Dr. Javed Anver Qureshi, Deputy Chief Scientist, Head, Health Biotechnology Division, NIBGE, Faisalabad will join the position of Associate Professor (Biochemistry) at King Khalid University, Abha, Kingdom of Saudi Arabia for a period

## MINAR recognized as a Regional Resource Unit by the IAEA

PAEC's Multan Institute of Nuclear Medicine and Radiotherapy (MINAR) has been recognized as a Regional Resource Unit (RRU) by the IAEA in the fields of Nuclear Medicine, Radiotherapy, Ultrasonography, Mammography and Medical Physics.

An RRU status implies and acknowledges the presence of an established expert group having high quality capabilities and the ability to exercise a leadership role in RCA projects or part projects. This also implies a commitment to making the associated physical and human resources available for use by other

RCA member states through the modalities of regional training activities, expert services, acceptance of fellowships, etc.

MINAR has continued to facilitate professional development within and outside the PAEC through its workshops, national courses, consensus developing activities, etc. Physicians and scientists at MINAR are currently working on IAEA tech-docs; hand books on standards in Medical Physics and Quality Assurance in Nuclear Medicine and R&D collaboration with LUMS, RDF fund (Pakistan) and PIEAS.

# Governor, NWFP, addresses the concluding session of the training course at NIFA

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*Mr. Owais Ahmad Ghani, Governor, NWFP addressing the concluding session of the training course at NIFA, Peshawar.*

informed that PAEC is running thirteen cancer hospitals across the country providing diagnostic and treatment services to around 500,000 patients annually at no cost to majority of them. Five such Cancer hospitals are coming up soon.

PAEC has established Agri Research institutes in various ecological regions of the country namely, NIA Tandojam, NIAB Faisalabad, NIFA Peshawar and NIBGE Faisalabad, which have developed 61 high yielding and stress tolerant crop varieties, resulting into significant enhancement of food production and socio-economic uplift of the country, the Member informed.

For minimizing the post-harvest losses of farm produce and increasing the shelf life of foods and fruits, a commercial Gamma Irradiator has been established by PAEC at Lahore with the name of PARAS Foods, Member added.

Earlier in his introductory remarks, Dr.

Farooq-e-Azam, Director, NIFA, presented an overview of the history, working and services rendered by the institute and also explained the salient features of the 1st ever course in the use of Isotopes in Agriculture, Health & Medicine from which 35 participants from across the country benefited. Dr. Ihsanullah was the organizer of this course.

## PAEC Scientists honoured

Dr. Abid Farid, Dr. Muhammad Taufiq and Dr. Shaheen Atta of Nuclear Institute for Food and Agriculture, Peshawar have been selected by Higher Education Commission (HEC) as supervisors for Ph.D. students funded under HEC scholarship programs. At present, a total of seven NIFA scientists are included in the list of HEC approved supervisors for Ph. D.

# Food a strategic material, scientists should help enhance farm production: Governor, NWFP

## PAEC to install more Nuclear Power Plants: Dr. Ansar Parvez, Chairman, PAEC

Food is a strategic material in the current and coming times and scientists should work in coordination with the farmers to enhance the production of food and cash crops.

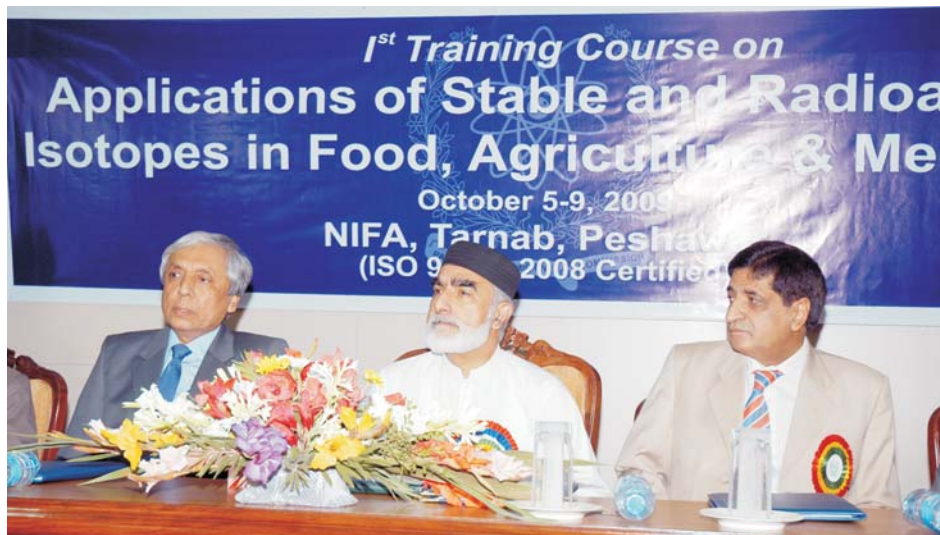
This was stated by Mr. Owais Ahmad Ghani, Governor, NWFP while concluding a training course on "Applications of Stable & Radioactive Isotopes in Food, Agriculture and Medicine", organized by Nuclear Institute for Food & Agriculture, NIFA, a research institute of Pakistan Atomic Energy Commission, on October 09, 2009.

He appreciated the efforts put in by NIFA towards agriculture and socio-economic uplift of the province by reaching out to the provincial departments and the farmers.

He paid rich tributes to Pakistani nation which has always risen-up together to meet the challenges faced by it, be it the acquisition of nuclear deterrence, external and internal threats and other national calamities. He cited with particular emphasis the resolve of the nation to fight the extremists and hosting and settlement of displaced persons in this war.

He said, 20th century is the century of the quality and not of quantity. Only those nations will survive who stand ahead in this competition and in this regard scientists and engineers have a leading role to play. He eulogized PAEC scientists and engineers in this struggle for national survival.

He said Pakistan is a strong and



*Governor, NWFP, Mr. Owais Ahmad Ghani presiding the concluding ceremony of the training course at NIFA. To his right is Dr. Ansar Parvez, Chairman, PAEC and to his left is Dr. Abdul Rashid, Member (Biosciences).*

homogenous nation united by a common faith in Islam and our enemies are at work to create divisions in us which must be guarded against with all available means and national resolve.

In his welcome address, Chairman, PAEC, Dr. Ansar Parvez said PAEC has a wide range of programs in the domains of national defense, agriculture, health, nuclear power, research and development in industrial support and human resource development.

We plan to install more nuclear power plants in the coming years to meet our target and contribute to the power requirements of the country. In this regard, several workshops and facilities have been established which aim at not only meeting our own

requirements, but also for the benefit of industry and other national institutions, he said.

PAEC is also engaged in putting up model projects in the areas of Salinity, Drip irrigation, etc. and the same are handed over to the end users and farmers, Dr. Ansar said.

Human resource needed for PAEC's high-tech program is a vital requirement and we are focusing on it and have established various institutes providing education and training in a variety of disciplines, Chairman, PAEC said.

Speaking on the role of PAEC in Agriculture and Health, Member (Biosciences), Dr. Abdul Rashid

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