

**CENTRE FOR SCIENCE & TECHNOLOGY OF THE NON-ALIGNED AND OTHER
DEVELOPING COUNTRIES
(NAM S&T CENTRE)**

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**INTERNATIONAL WORKSHOP ON
POLICY MAKING IN POPULARISATION OF SCIENCE, TECHNOLOGY
AND INNOVATION (STI)**

TEHRAN, IRAN

17-19 JUNE, 2019

BRIEF REPORT

One of the major challenges facing developing countries is to make science and technology an essential part of the culture of the people. A number of historical, cultural, political, social and economic situations have resulted in the need to develop policies and strategies that favour the popularisation of science and technology in the developing countries. Despite the wide variety of situations, majority of the stakeholders are concerned with efforts to generate an endogenous scientific and technological culture. The popularisation of science and technology makes such knowledge a central component of the culture of social awareness and of collective intelligence.

The possibilities of gaining access to information through the application of science & technology are changing our vision of the world and transforming the relationship between human beings and the process of dissemination of knowledge. Today, access to science, technology and the related knowledge is synonymous with development, well-being and quality of life; in this context, scientific and technological literacy is a social and ethical right of all human beings.

In order to focus on the above issues, the Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) jointly with the Science Popularisation Department of the National Research Institute for Science Policy (NRISP), Tehran, Iran organized a three-day **International Workshop on 'Policy Making in Popularisation of Science, Technology and Innovation (STI)'** in **Tehran, Iran** during **17-19 June, 2019**.

The three day International Workshop was held successfully at three different locations namely, the Ministry of Science, Research and Technology; Iran National Innovative Fund (INIF); and the Malek National Library and Museum in Tehran. It was a dynamic event held with the objective to prepare grounds for popularisation of STI and relevant policy making as it is a relatively new concept dealing with the relationship between science and society; achievements and advancements of science and technology; and the scientific methods used to

achieve these goals. The participants of the Workshop are actively involved in elaborating on the role of popularisation of science with reference to the scientific and technological innovations and knowledge-based process of international developments.

The Inaugural Session that was held at the Jahad Elmi Hall, Ministry of Science, Research and Technology, commenced with an audio scripture from the Holy Quran and of the Iranian National Anthem. This was followed by a short film about NRISP, after which an address to the delegates was made by **Prof. Vahid Ahmadi**, Advisor to the Minister of Science, Research and Technology & President, National Research Institute for Science Policy (NRISP), Tehran who welcomed the participants and briefly highlighted the importance of popularisation elements, processes, models and conceptual frameworks in STI in the developing countries. He then made the participants aware of his expectations from the Workshop for introducing new trends, paradigms and approaches in policy planning and compared the role of the government to that of a mother in a society. **Dr. Amitava Bandopadhyay**, Director General, NAM S&T Centre, in his address presented the genesis of the event, emphasizing on how the Workshop would help in networking among the developing countries, and also briefly described the activities of the NAM S&T Centre, an inter-governmental organisation based in New Delhi. **Dr. Mansour Gholami**, Minister of Science, Research and Technology, Iran then briefly addressed the delegates, and highlighted upon the fact about majority of the developing countries having restricted innovations, finally drawing attention towards Iran that has a good experience in fostering Science and Technology in the past two decades. The Opening Session concluded with an official group photograph.

The participants of the workshop included **96** scientists, experts and professionals from **16** developing countries including Bhutan, Cambodia, Colombia, Cuba, India, Indonesia, Malaysia, Mauritius, Myanmar, Nigeria, Pakistan, Palestine, Sri Lanka, Togo and Zimbabwe and the host country Iran.

The **Overseas participants** were from **Bhutan** [**Mr. Dawa Tshering B**, Deputy Chief Program Officer, Higher Education Planning Division, Department of Adult & Higher Education, Ministry of Education, Thimphu]; **Cambodia** [**Mr. Buoy Somethea**, Director, Department of Policy and Planning, Administration and Finance and ICT, General Secretariat of the National Science and Technology Council (GS-NSTC), Ministry of Planning (MoP), Phnom Penh]; **Colombia** [**Ms. Natalia Suarez Jaramillo**, Science Communicator, Colombian Institute for the Development of Science & Technology (COLCIENCIAS), Bogotá]; **Cuba** [**Mr. Hector Arias Martin**, General Specialist, Ministry of Science, Technology and Environment, Directorate of Science, Technology and Innovation, Havana]; **India** [**Mr. Hasan Jawaid Khan**, Chief Scientist, National Institute of Science Communication and Information Resources, Council of Scientific & Industrial Research (CSIR), New Delhi; and **Ms. Gloria Susan Cherian**, Research Associate, NAM S&T Centre, Lodhi Road, New Delhi]; **Indonesia** [**Mr. Hariyanto**, Head of Sub Directorate of Information Systems, Ministry of Research, Technology and Higher Education (MoRTHE), Jakarta]; **Malaysia** [**Ms. Thiagaletchumi V. Maniam**, Principal Assistant Secretary, Planning Unit, Strategic Planning Division, Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC), Putrajaya]; **Mauritius** [**Mr. Dayachand Balgobin**, Manager/ Curator, Mechanical Engineering, Rajiv Gandhi Science Centre, Port Louis]; **Myanmar** [**Dr. Cho Min Han**, Director, Department of Research and Innovation, Yangon]; **Nigeria** [**Mr. Sayuti Lapai Wali**, Deputy Director, Policy Analysis & Development Division, Raw Materials Research & Development Council (RMRDC), Abuja] ; **Pakistan** [**Dr. Muhammad Tariq Masood**, Joint Scientific Advisor, Ministry of Science & Technology, Government of Pakistan, Islamabad]; **Palestine** [**Mr. Hazem Maraaba**, Manager, Higher Council for Innovation and Excellence,

Ramaala]; **Sri Lanka** [Dr. P.R.M.P. Dilrukshi, Principal Scientific Officer and Head, Science Popularisation Division, National Science Foundation, Colombo and Mr. Patabendi M. Dharmatilake, Director, Science and Research Development, Ministry of Science, Technology and Research, Battaramulla]; **Togo** [Dr. Yao Adjrah, Researcher, Directorate of Scientific and Technical Research (DRST), Lome]; and **Zimbabwe** [Dr. Melody Ndemera, Science and Technology Officer, Government of Zimbabwe: Ministry of Higher and Tertiary Education, Science and Technology Development, Harare].

The **Iranian participants** included **80** scientists, professors and faculty members from various institutions including NRISP; Ministry of Science, Research and Technology; Iran National Innovation Fund (INIF); Iranian National Museum of Science & Technology (INMOST); Iranian Institute of Philosophy; Agricultural Research, Education and Extension Organisation (AREEO); Research Institute of the Petroleum Industry; Islamic Educational, Scientific and Cultural Organization (ISESCO); Iranian Research Institute for Information Science and Technology (Iran Doc); Shahid Rajaee University; Scientific Publications and Information Development Center (SPIDC); Museum of Malek; Children's Cultural Development Centre (CCDC); Iranian Research Organization for Science and Technology (IROST); Guilan Science and Technology Park; Tabriz University; Yazd Science and Technology Park; Hormozgan Science and Technology Park; Isfahan Science and Technology Town; Ministry of Education; Institute for Color Science and Technology; Ministry of Agriculture; Center for International Scientific Studies and Collaboration; Institute for Humanities and Cultural Studies; Olom Tahghighat University; UNESCO; Iranian Research Institute for Information Science and Technology; Tarbiat Modares University; Atomic Energy Organization of Iran; Iranian National Institute for Oceanography and Atmospheric Science; Imam Hosein University; Iran's National Elites Foundation; and Iran Science and Technology Museum.

The overall programme of the Workshop was conducted in a total of *six Technical Sessions*, as below:

Technical Session-1 was chaired by Mr. Patabendi M. Dharmatilake [SRI LANKA] and co-chaired by Ms. Monireh Homayoni [IRAN]. The scientific papers presented in this session were on '*Science Popularisation: A Review of Definitions, Models & Goals*' by Dr. Hosein Sheykh Rezaee [IRAN]; '*Policy Making on the Popularisation of Science, Technology and Innovation (STI) in Nigeria*' by Mr. Wali Sayutilapai [NIGERIA]; '*The Development of STI Policy in Cambodia*' by Mr. Buoy Somethea [CAMBODIA]; '*Modern Agricultural Extension System in Iran*' by Dr. Ali Akbar Moyaedi [IRAN]; and '*Science, Technology & Innovation Policies in India – Thrust on Communication & Public Engagement*' by Mr. Hasan Jawaid Khan [INDIA].

Technical Session-2 was chaired by Dr. Alaei [IRAN] and co-chaired by Dr. Dayachand Balgobin [MAURITIUS]. The scientific papers presented in this session were on '*Popularisation of Science*' by Prof. Jafar Tofighi [IRAN]; '*Policy Making in Popularisation of Science, Technology and Innovation (STI) in Bhutan*' by Mr. Dawa Tshering B [BHUTAN]; '*Role of ISESCO on Education and Advancement of Science and Technology in the Islamic World*' by Dr. Gholamreza Karimi [IRAN]; '*STI Policy and Socio-economic Development in Myanmar*' by Dr. Cho Min Han [MYANMAR]; '*Policy Making for Popularisation of Indigeneous Knowledge in Traditional Medicine*' by Ms. Gloria Susan Cherian [INDIA]; '*Popularisation of Information Science & Technology through Robotics*' by Dr. Azadeh Mohebi [IRAN] and '*Science, Technology and Innovation Situation in Togo*' by Dr. Yao Adjrah [TOGO].

Technical Session-3 was chaired by Dr. Naghizadeh [IRAN] and co-chaired by Mr. Hasan Jawaid Khan [INDIA]. The scientific papers presented in this session were on '*Science,*

Technology and Innovation Enculturation in Malaysia by Ms. Thiagaletchumi V. Maniam [MALAYSIA]; *Master Plan for National Research Priorities* by Mr. Hariyanto [INDONESIA]; and *Policy Making in Popularisation of Science, Technology and Innovation-Palestine Case* by Mr. Hazem Maraaba [PALESTINE].

Technical Session-4 was chaired by Mr. Sayuti Lapai Wali [NIGERIA] and co-chaired by Dr. Nazifkar [IRAN]. The scientific papers presented in this session were on *Innovation Ecosystem in Iran* by Dr. Mohammad Reza Attarpour [IRAN]; *The Most Important Challenges of Science Popularization in Iran* by Dr. Mansour Vesali [IRAN]; *Rajiv Gandhi Science Centre - Building Scientific Temper in Mauritius* by Mr. Dayachand Balgobin [MAURITIUS]; *Awakening the Nation to Genomics Technology: A Case Study of the Next Generation Biomedical Scientist (NGBS) Programme in Zimbabwe* by Dr. Melody Ndemera [ZIMBABWE]; *Popularization of Science, Technology and Innovation in Cuba* by Mr. Hector Arias Martin [CUBA]; *Proposal for the Establishment of a National Science Centre in Sri Lanka* by Mr. Patabendi M. Dharmatilake [SRI LANKA]; and *The National Library and Archives of Iran* by Dr. Hasan Bagheri [IRAN].

Technical Session-5 was chaired by Dr. Kosari [IRAN] and co-chaired by Mr. Buoy Somethea [CAMBODIA]. The scientific papers presented in this session were on *Science growth in Iran* by Dr. Mehdi Keshmiri [IRAN]; *Status of Science Education in Sri Lanka and Plans for Increasing Scientific Literacy among General Public* by Dr. P.R.M.P. Dilrukshi; and *Knowledge Translation & Exchange as Tool for Science Popularisation and Use* [IRAN] by Dr. Payam Kabiri.

Technical Session-6 was chaired by Dr. Mousavi [IRAN] and co-chaired by Dr. Hafezi [IRAN]. The scientific papers presented in this session were on *Science and Technology Communication* by Dr. Zahra Ojagh [IRAN]; *Strategy for Science Communication* by Ms. Natalia Suarez Jaramillo [COLOMBIA]; *The Museum of Malek* by Dr. Gholam Reza Khaje Sarvi [IRAN]; and Ms. Monireh Homayoni on *The Importance of Science in Schools of Rural Areas* [IRAN].

A short industrial visit was organized on the third day of the Workshop to the Iranian National Museum of Science and Technology (INMOST) and then to I.R. Iran Science and Technology Museum (IRSTM). A visit to Golestan Palace and the Milad Tower was also organised to get a glimpse of Iran's unique architectural designs.

The Concluding Session was chaired by **Dr. Amitava Bandopadhyay**, DG, NAM S&T Centre and Co-Chaired by **Dr. Akram Ghadimi**, Director, Science Popularisation Department, NRISP. Extensive discussions were held during this session on the draft Tehran Resolution on **'Policy Making in Popularisation of Science, Technology and Innovation (STI)'** after which the Resolution was unanimously adopted by the participants for its submission to the concerned ministries, agencies and other authorities in their countries. The Certificates of Participation were then handed over to the participants for the successful completion of the Workshop.

The participants expressed their gratitude to the organisers and hosts, NAM S&T Centre and NRISP for providing opportunities to meet, engage, gain and share knowledge at a common platform, and to Popularize STI in all developing countries.