

**INTERNATIONAL WORKSHOP ON THE CHANGING ROLE OF SCIENCE CENTRES
AND MUSEUMS IN THE DEVELOPING COUNTRIES
HANOI (VIETNAM), 20 – 22 OCTOBER 2004**

***PARTICIPATING COUNTRIES:* 15 COUNTRIES (INCLUDING 13 MEMBER
COUNTRIES OF THE CENTRE**

***NUMBER OF PARTICIPANTS:* 70 (INCLUDING 53 DIRECTORS AND SENIOR
EXPERTS FROM VIETNAM)**

Science is a part of our culture and society and the recent years are witnessing unprecedented growth in various fields of science and technology, such as materials technology, medical sciences, biotechnology, information and communications technology, etc. In order to fully comprehend these developments and their impact on the socio-economic progress, particularly in an emerging economy, the science centres and science museums play a vital role because visual impression helps in the process of quickly grasping various facets of the new knowledge. Such establishments provide a distinctive networking between the community, the school and the home giving them a unique role in the educational infrastructure. These are often associated with the casual family visit on a weekend afternoon or class field trips, but are increasingly becoming relevant as one of the most powerful tools in science popularization as well as education, such as in the development of major curricula for the schools. Regretfully there are only a handful of countries, which have appreciated the immense effectiveness of the science centers and science museums in educating the young populace and other segment of general masses.

In order to review the status of the science centers, science museums and related establishments in the world, particularly in the developing countries and to exchange ideas and experiences pertaining to their present and future developments and cooperation, the Centre for Science and Technology of the Non-Aligned and other Developing Countries (NAM S&T Centre) with the approval of its Governing Council organized the 2nd international workshop titled 'The Changing Role of Science Centres and Museums in the Developing Countries' during October 20-22, 2004 in Hanoi, Vietnam in association with the Centre for Regional Research and Development (CRD) under the Ministry of Science and Technology (MOST) of Vietnam. The NAM S&T Centre had earlier organised a similar workshop in Kolkata, India in Nov./Dec. 2002, and a regional Latin American / Caribbean workshop in March 2004 in Bogotá, Colombia. The main purpose of the Hanoi workshop was to bring together science popularization experts and museologists to share the knowledge and experiences in the development of science centres and museums and experiences pertaining to their present and future developments and cooperation.

About 70 Directors and senior experts of science centres and science museums from 15 countries, namely, Algeria, Bangladesh, Egypt, India, Indonesia, Malaysia, Mauritius, Nepal, Pakistan, South Africa, Sri Lanka, Sudan, USA, Vietnam and Zambia attended the 2-days workshop held in Horison hotel of Hanoi. The nominee of Syria however was not able to travel to Hanoi, but his presentation material was made available at the workshop.

The workshop was spread over six technical sessions and was inaugurated by Dr. Bùi Minh Hài, Vice-Minister, MOST, Vietnam, Prof. Arun P. Kulshreshtha, Director, NAM S&T Centre and Mr. Phan Huy Chi, Director, CRD, MOST. 22 presentations were made during the workshop respectively by Mr. Bouatrous Ali of the Algerian Embassy in Hanoi; Mr. Mesbahul Alam, Scientific and Technological Advisor in the Ministry of Science and Information & Communication Technology of Bangladesh; Prof. Dr. Salwa Abdalla El-Gharib of the Faculty of Applied Arts, Helwan University in Egypt; Dr. V. B. Kamble, Director, Vigyan Prasar, and Adviser, Department

of Science and Technology, Government of India; Mr. Samir Kumar Ray, Director, Central Research and Training Laboratory (NCSM), Kolkata, India; Mr. Ratan Kumar Chakrabarti, Education Officer in Birla Institute of Industrial Museums (NCSM), Kolkata, India; Ir. Herudi Kartowisastro, Director, Indonesian Science Centre in Jakarta, Indonesia; Mr. Viswamitra Oree, Curator, Rajiv Gandhi Science Centre of Mauritius; Prof. Dayananda Bajracharya, Vice-Chancellor, Royal Nepal Academy of Sciences and Technology (RONAST); Dr. Muhammad Rashid Awan, Director, Pakistan Museum of Natural History; Mr. Jayanath Appudurai, Director, National Science Centre, Ministry of Science, Technology and Innovation, Malaysia; Mr. Arumahennadige Piyasiri, Mechanical Engineer in the National Engineering Research and Development Centre, Sri Lanka; Mr. K. M. Lebs Mphahlele, Manager (Science and Youth) in the Department of Science and Technology, South Africa; Prof. Ibrahim Babiker Abdalla, Advisor, Ministry of Science and Technology, Sudan; Prof. Dr. Lé Ng c Ly from the Naval Postgraduate School in Monterey, California, USA and Advisor, CRD; Mr. Phan Huy Chi, Director, CRD, MOST, Vietnam; Dr. Nguyen Vo Hung of the National Institute of S&T Policy and Strategic Studies, MOST, Vietnam; Dr. Nguy n V n Huy, Director of the Ethnic Museum of Vietnam; Dr. Nguy n Bá Thái from the National Institute for Education Strategy and Curriculum, Vietnam; Mr. Luu Ngoc Anh from the Educational and Scientific Program Department of Vietnam Television; Mr. Festers Hangandu Mungo, Principal Education Officer in the National Science Centre of Zambia; and Dr. J. Mishra, Programme Associate, NAM S&T Centre. Most of these presentations were the respective country status reports and the perspective plans for constructing new science centres. However some of the presentation focused on other formal and non-formal modes of science popularization, science learning networks, robot contest, science train etc. and Mr. R.K. Chakrabarti of BITM, India made a fun science show.

The concluding session was devoted to the future cooperation and adoption of a Hanoi Resolution 2004, which is reproduced below. Prof. Dayananda Bajracharya, Vice-Chancellor, RONAST, Nepal, Mr. F. H. Mungo, Principal Education Officer in NSC, Zambia and Dr. Nohora E. Hoyos T., Director, Maloka Science Centre in Bogotá, Colombia were nominated as the respective Focal Points in the Asian, African (including Middle East) and Latin American regions to further develop the activities related to science centers and museums in their areas. National Council of Science Museums (NCSM), India offered training facility free of cost with individual participants bearing all other expenses and also proposed to offer its Science Exhibition Buses to the member countries of NAM S&T Centre on cost basis; National Council for Science and Technology Communication (NCSTC), India offered to partly support the participation of one / two school children with one teacher as participants-cum-observers from developing countries subject to the approval of government of India; and National Science Centre (NSC) of Malaysia offered training facility in Science Enrichment Programme free of cost with individual participants bearing all other expanses. All the participants urged that more of such workshops should be held in future in this area for all the developing countries once every alternate year, and a regional workshop during the intervening period. In this context, the next regional conference on science centres and science museums was proposed to be held either in South Africa or Sudan or Zambia some time in 2005 subject to the approval of their respective governments and RONAST, Nepal proposed to host the next international meeting sometime in 2006-2007.

After the concluding session, the participants of the workshop visited the Ethnic Museum in Hanoi and a natural cave situated in Halong Bay, which is surrounded by rich floral and faunal diversity and is an open natural museum that has been recognized by UNESCO as a cultural heritage.

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IN THE DEVELOPING COUNTRIES

HANOI RESOLUTION 2004

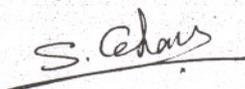
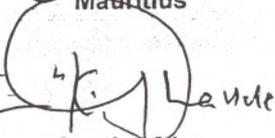
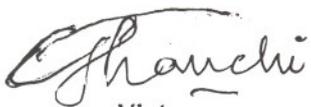
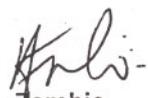
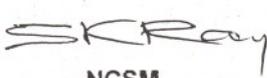
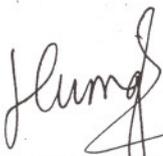
While expressing gratitude to Vietnam, the hosts of the international workshop on 'The Changing Role of Science Centres and Museums in the Developing Countries' jointly held by the Ministry of Science and Technology, Hanoi, Vietnam and the NAM S&T Centre during October 20-22, 2004, we, the participants of the workshop resolve that:

1. Science centres shall cover science, technology, engineering and mathematics. These will refer to a permanently established education facility to provide an interactive educational experience through the use of interactive exhibits, displays and programmes.
2. The interactive nature of the science centres and museums represent a unique opportunity to spread scientific awareness, promote non-formal science education, promote scientific literacy and provide life-long learning opportunities for people in science.
3. In accordance with para 48 of the Science Declaration adopted at the World Conference of Science organized by UNESCO / ICSU in Budapest, Hungary in June 26 – July 1, 1999, governments, international organizations and relevant professional institutions enhance or develop programmes for the training of journalists in science communicators and all those involved in increasing public awareness of science.
4. In pursuence of the Kolkata Declaration of 2002 a regional Latin American/Carrebean workshop was organized in Colombia, Latin America in March 2004 and the second international general workshop on science centres for all developing countries has been organized in Hanoi, Vietnam in October 2004; More science centres in NAM and other developing countries have been established; Role of science museums and centres as important elements in public education in science has been promoted; and individual experiences through the quarterly newsletter and website of the NAM S&T Centre have been shared.
5. National authorities and funding institutions shall promote the role of science centres and museums as a vital element in public education in science, and that we shall pursue this with concerned authorities in our respective countries.
6. Science centres in developing countries shall ensure efficient record keeping, conduct regular impact assessments and report progress at regional and general workshops. The NAM S&T Centre will facilitate fund-raising by approaching funding agencies such as UNESCO and UNDP, and other funding agencies and NGOs. There is a need to establish a network among science centres, museums and other institutions engaged in science popularization in the developing countries for effective sharing of learning experiences, and that the quarterly Newsletter of the NAM S&T Centre and its website (www.namstet.org) will report on the developments on the activities of the science centres and museums in the developing countries.
7. Development of science centre and museum related regional programmes will be undertaken by the member countries of the NAM S&T Centre and other developing countries grouped in three regions, with Focal Points Prof. Dayananda Bajracharya of Nepal for the Asian region, Mr. Festers Hangandu Mungo of Zambia for the African and Middle East region and Mrs. Dr. Nohora Elizabeth Hoyos of Colombia for the Latin American region.
8. Reviews for assessing impact of science popularization programme is extremely important for which we may seek the help of the NAM S&T Centre for approaching the international funding agencies like UNESCO, UNDP and also non-governmental organizations / private sector for organizing workshops and undertaking such studies with the support of the NAM S&T Centre.
9. Programmes of Science Centres and Museums in the developing countries may include awareness about and utilization of the traditional knowledge / media for science communication.
10. Member countries of NAM S&T Centre may encourage distance learning networks for science communication enabling teachers, students, science centres, museums and other institutions to interact with each other incorporating innovative approaches, internet resources, etc.
11. Exchange of personnel between developing countries for providing training in science popularization activities, including the development of exhibits shall be encouraged.
- 11a. The National Council of Science Museums (NCSM), India offered training facility free of cost with individual participants bearing all other expenses.

- 11b. NCSM, India proposed to offer its Mobile Science Exhibition buses, or help develop an exclusive Mobile Science Exhibition Bus, to the member countries of the NAM S&T Centre on cost basis.
- 11c. NCSM, India also mentioned about its plan of launching a two-year masters degree course on science communication for science museum/centre professionals effective from July 2005. Interested countries may contact NCSM for deputing participants for the course on cost basis.
- 11d. In view of the importance of India's National Children's Science Congress in encouraging school children to take up investigative science projects, similar activities may be taken up in other developing countries as well. Initially, the nodal agencies of the Government of India like Vigyan Prasar and National Council for Science and Technology Communication (NCSTC) offered to partly support the participation of one/two school children with one teacher as participants-cum-observers from developing countries subject to approval by the Government of India.
- 11e. National Science Centre, Malaysia offered training facility in Science Enrichment Programme free of cost with individual participants bearing all other expenses.
12. In view of the fact that extensive science popularization activities are required in the rural areas of most developing countries, assistance and help be extended to a country where it is needed by the other member countries. Awareness programmes / software could also include development of a variety of software on issues like environment, biodiversity, health, medicine, water resources, information technology and so on.
13. More of such workshops shall be held in future on science centres and museums for all developing countries once every alternate year, and a regional workshop during the intervening period.

Zambia / Sudan offered to host the regional conference in 2005 subject to the approval of their respective governments. They will inform the NAM S&T Centre about the venue, date etc. after mutual consultations between themselves and the Centre.

The Royal Nepal Academy of Science and Technology (RONAST) proposed to host a meeting on Science Centres and Museums in the year 2006-2007, subject to the successful establishment of the proper science learning centre in Nepal.

 Algeria	 Bangladesh	 Egypt	 India
 Indonesia	 Malaysia	 Mauritius	 Nepal
 Pakistan	 Sri Lanka	 South Africa	 Sudan
 Vietnam	 Zambia	 NCSM India	 BITM India (NCSM)
 CRD, MOST	 NAM S&T Centre		