

## **International Roundtable on Impacts of Extreme Natural Events: Science & Technology for Mitigation (IRENE): A Report** – B.C. Prabhakar and K.N. Radhika, Bangalore University, Bangalore - 560 056 (E: [bcprabhakar@rediffmail.com](mailto:bcprabhakar@rediffmail.com))

Centre for Science and Technology of the Non-aligned and other Developing Countries (NAM S&T centre), New Delhi organized an International Roundtable on “Impacts of Extreme Natural Events: Science & Technology for Mitigation (IRENE)” in Colombo, Sri Lanka during 13-15 December 2017. The focus of the Roundtable was global climate change which led to the alterations in frequency, intensity, spatial extent and duration of weather and climate extremes. These climate extremes are severely impacting on both human and ecosystems including huge economic losses. It is realized that more people are living in areas vulnerable to sudden onset of natural disasters even as scientists predict that the frequency and intensity of these disasters are likely to increase as a result of the effects of climate change. This situation demands a technological revolution to address extreme natural patterns like floods, earthquakes, mudslide, torrential rain, hurricanes, tornadoes etc. A concerted effort and coordination at national and international levels involving stakeholders and institutions is the need of the hour to push the international protection regime forward. The emerging extreme climate related hazards coupled with recent high-profile mega-disasters like monsoon flooding in Bangladesh; hurricane Irma in USA and Caribbean; floods in different regions of India; mudslide in Colombia; and earthquakes in Mexico and Iran, are raising global awareness of the need to build the capacity of national governments, civil society organisations and international entities to prevent, respond and recover from natural disasters. Keeping this in view, the NAM S&T Centre in partnership with the National Science & Technology Commission (NASTEC), Sri Lanka and the Research Centre-Technology for Disaster Prevention, South Eastern University of Sri Lanka (RC-TDP, SEUSL) organised an international Roundtable on the said theme, which brought the scientists, experts and professionals engaged in R&D, policy making and implementation, social activists and other stake holders to a common forum for sharing views and experiences for the development of a road map for reducing the risks in real situations.

In the Inaugural Session, M. J. S. Wijeyaratne, Chairman, National Science & Technology Commission (NASTEC), Sri Lanka, Arun P. Kulshreshtha, Director General, NAM S&T Centre, Udaya R. Seneviratne, Secretary, Ministry of Science, Technology & Research, Sri Lanka, M.M.M. Najim, Vice Chancellor, South Eastern University of Sri Lanka, Muditha Liyanagedera, Director and CEO, NASTEC addressed the gathering and emphasized the background of the Roundtable.

The Roundtable was attended by 41 professionals from 18



Group photo of participants at the International Roundtable at Colombo

countries – Egypt, India, Indonesia, Iran, Iraq, Malaysia, Mauritius, Myanmar, Nepal, Pakistan, Palestine, Qatar, South Africa, Togo, The United Kingdom, Vietnam and Zambia, and the host country Sri Lanka. Factual information on extreme climatic events like floods, cyclonic storms, seismicity, hydrometeorological disasters and socio-economic impacts in different countries to innovative mitigating measures and application of technologies were presented and discussed during the technical sessions.

There were eight participants from India representing institutions, research organizations and universities, addressing issues like droughts, exploring alternate water resources, landslides, lightning disasters, floods etc. The overall program of the Roundtable was conducted in six technical sessions.

In the concluding session of the Roundtable, extensive discussion on a draft Colombo Resolution on ‘Mitigation of Impacts of Human Hazards due to Extreme Natural Events: Five Year Road-Map on the Adoption and Development of Scientific & Technological Advancements’ was initiated by Arun P. Kulshreshtha, Director General, NAM S&T Centre and comments/inputs from the participants were then incorporated in the draft after deliberations. The finalised resolution was then unanimously adopted by the participants for its submission to the concerned ministries, agencies and other authorities in their countries.

One of the significant outcomes of the Roundtable was to explore the possibility of establishing a dedicated NAM S&T Centre for Lightning Research, Detection and Protection (CLRDP) with the involvement of the State and Central Governments of India.

A field visit was also arranged for the foreign delegates to a landslide site at Kahagalla in Central Province of Sri Lanka. New techniques of preventing landslides are being implemented in this strongly landslide-prone site in the highland province, with the collaboration of Japan.

*(Excerpt from the main report of NAM (S&T) Centre on the Roundtable)*