

VISIT OF THE PRESIDENT OF INDIA ON 24TH OCTOBER 2017

The Honourable President of India, Ram Nath Kovind, visited the Indian Institute of Science on 24th October 2017. During this visit Prof. S. K. Satheesh, Chairman, Divecha Centre for Climate Change met him and made a short presentation on “Environment and climate change”. Some summary from this presentation is given below.

Climate change will be one of the major challenges for humanity in this century and India will be among the worst affected. Some recent devastating rain and consequent flash flood that affected India are those in Mumbai in 2005, Uttarakhand in 2013, and Chennai in 2015. Even though recent advances have made short-term prediction of

rainfall more accurate, the prediction of its regional distribution, which is more important for farmers, still remains a challenge. To improve skill of prediction, it is necessary to integrate ground-based information and satellite data available with to develop region-specific parameterisations and incorporate those in climate or weather prediction models. To accelerate this process, climate science community will need access to exascale computing systems capable of running high resolution climate models. It is also important to predict and monitor moraine-dammed lakes in the Himalayas using high resolution satellite data, estimate the volume of water stored using location-specific algorithms, plan safe ways to drain them off during



The Honourable President of India, Ram Nath Kovind, in the meeting

emergency to prevent Àash Àoods and take measures to prevent the loss of life and property in the Himalayan region. In addition to disaster management, the amount of stored water is also a crucial information as millions of people depend melt water from the Himalayan glaciers for their water supply and electricity.

Another major concern is the impact of climate change on India's precious biodiversity. The large human and cattle population along with land use changes have exerted significant pressure on India's biodiversity. In recent years, India's biodiversity is also facing additional pressure from climate change. India is committed to halt biodiversity loss by 2030 and this is a challenge as a fraction of our biodiversity is not yet documented and its change over time is rather poorly understood. A balanced

approach is required to carefully manage and conserve our forest resources.

Policy making should depend on information derived from observation-based assessments. This requires an understanding of the implications that can help to design adequate strategies for management of resources. The current scientific understanding of the potential connections between climate change and society such as food production, water security and biodiversity conservation is not adequate enough to directly translate into policy decisions. It is important to pursue this, because India has made substantial commitments to reduce emissions in the Paris agreement. This has been initiated in Bangalore with a vision, "Science for the people" and with an objective of linking science to policy.



Round table discussion with the Director of IISc Prof. Anurag Kumar