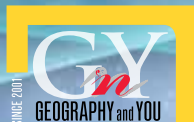


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LIGHTS (Learning in
Geography, Humanities,
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In collaboration with



School of Environmental Sciences
Jawaharlal Nehru University,
New Delhi

4th Conference on Science & Geopolitics of HIMALAYA-ARCTIC-ANTARCTIC

Focussing Climate Change



NOVEMBER 30 and DECEMBER 1, 2017

JNU Convention Centre,
Jawaharlal Nehru University, New Delhi

Sponsored by



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Context /

Changes in the Arctic, Antarctica and the Himalaya are challenging our understanding of their consequences and our ability to provide knowledge for decision-makers. There needs to be a greater sense of urgency among decision-makers and awareness by the public regarding the global importance of changes taking place in the polar realms. The countries undertaking research on the polar realms have developed specialized scientific skills that today comprise a shared resource for humankind. This uniqueness alongside the presence of different countries in a geographically hostile terrain makes it geopolitically relevant. Thus, the interface between science and geopolitics of Arctic and Antarctic becomes pertinent

But, it is critical to anticipate changes in the poles rather than respond to them. This requires sustained observations and improved understanding of local, regional and global processes. These research challenges must be addressed in a coordinated and timely manner. It is essential to build long-term human capacity to support relevant observations and research among scientists, decision-makers and public through education and by adopting shared principles to guide research activities.

LIGHTS Research Foundation has been working towards a convergence of these two emergent aspects for seven years now. To begin with, a National Conference was organised in 2011 followed by an International Conclave in 2012 based on this convergence. The 2015 event was conceived as having greater amalgamation of research with ground truthing with the addition of a dialogue on the third pole—the Himalaya.

The event, named the SaGHAA has over the years gained credibility. Within each forum, scientific and geopolitical, findings are shared and events organised. However, an interface within the two is few and far between in India. Since the tenets that determine the icy realms of Arctic, Antarctic and the Himalaya are based on science, it becomes important to debate issues on a platform where inter-disciplinary issues can be raised.

The Conference attempts to extend the context of a 'pristine area devoted to peace and science' to the Himalaya as well. The inclusion of the Himalaya in the discourse will help build an understanding of issues related to all three poles, especially in the context of tele-connections and

climate change.

Focus /

Climate change and technological advancement have acted as big contributors in providing greater accessibility to the Arctic, Antarctic and Himalayan region. The rapidly changing polar realms initiate changes that cascade through the global system impacting weather, commerce and ecosystems in the more temperate regions. Linkages across disciplines, scales, and diverse knowledge systems must be addressed in future research activities.

Political and economic changes in the world order have led to considerable focus on the polar regions. Understanding the vulnerability and resilience of cryospheric environments and societies requires increased international cooperation. Further a pro-active stance of the new regime in the foreign policy and its positive and emphatic presence in the international fora has necessitated relook at our policy. More effective use must be made of local and traditional knowledge, and the dissemination of this knowledge by ensuring appropriate access to research data and results. New markets for these resources and associated activities, including trade, tourism and transportation, will likely emerge faster than the necessary infrastructures on land and sea. Sustainable infrastructure development and innovation to strengthen the resilience of these areas requires a collaborative approach involving scientists, communities, governments, and industry.

In this context, a consortium of scientists, policy makers and activists need to put together varied notions of research and ideas in order to promote developing views on global environmental and geopolitical governance.

History of SaGAA /

SaGAA III 2015

An international conference on Science and Geopolitics of Arctic-Antarctic-Himalaya (SaGAA 2015) was held at India International Centre, New Delhi, India during 29-30 September. Continuing the practice of previous two SaGAA Conferences it again brought together; thoughts, experiences, researches and advocacies on cold regions. Various sessions—Geopolitics of the Polar Region; Global Climate Change: Polar Region and Third Pole; Living and Non-living

Resources Potential: marine protected areas and geopolitics; Tourism Industry and the Poles were organised. These sessions not only helped to build better understanding of geopolitics but also brought new researches in front that are being carried around globe to understand dynamics and potential of these regions.

Eminent scientists including scientists such as Dr. P.S. Goel, Dr. Shailesh Nayak, Dr. M. N. Rajeevan, Dr. Sanjay Chaturvedi, Dr. Uttam Kumar Sinha, Dr. R. Krishnan, Dr. Geir Moholdt, Dr. Anil V Kulkarni, Dr. M.R. Bhutyani, Dr. David E. Rheinheimer, Dr. Ravishankar, Dr. Rajan, Dr. Rasik Ravindra, Thórir Ibsen, Marcus Holknekt, Grahame Morton and Sergey A Borovik contributed to the conference. It was an interactive conference with more than 100 cold region enthusiasts attending the Conference.

SaGAA II 2012

The International Conference on Science and Geopolitics of Arctic and Antarctic (I- SaGAA 2012) in New Delhi was in continuation to SaGAA National 2011. The International Conference held between March 9 and 11, successfully bounded the session on Geopolitics: UNCLOS and the Global Commons Geopolitics of the Global Realms; Biotechnology: Microbial resources in Polar Regions Dynamics in Polar Marine Biodiversity (Prokaryotes, vertebrates and invertebrates) Information Exchange and Intellectual Property Rights, Resources of the Southern Ocean; Ice Core for Paleo Climate, Southern Ocean and Solar Impact: Sea ice melting, Ice core studies, Southern

Ocean Experiments Paleo climate studies; Polar Atmospheric Research: Ozone depletion Meteorological Studies.

Some of the senior scientists present were Dr. P S Goel, Dr. Shailesh Nayak, Dr. S.W.A. Naqvi, Prof. S. K. Tandon, Prof. John Turner, Dr. Timo Koivurova, Dr. Victor Smetacek, Dr. John P. Bowman, Prof. Nalan Koc, Prof. John M. Reynolds, Dr. George John, Dr. S. Shivaji, Dr. B. Meenakumari, Dr. S. Rajan, Dr. Ramesh, Dr. Rasik Ravindra apart from representatives from the countries such as United Kingdom, Finland, Germany, Australia, Norway and Chile. The participation of about 100 scientists was observed in the Conference. Marvelously remarkable was that the number of participants remained the same from the first day to the last day marking the riveting nature of the proceedings.

SaGAA I 2011

The first National Conference on Science and Geopolitics of Arctic and Antarctic was held between January 14 and 15. The sessions saw the gathering of eminent scientists such as Dr. Shailesh Nayak, Dr. Ajit Tyagi, Dr. N.C. Mehrotra, Dr. Anil K. Gupta, Dr. Rasik Ravindra, Dr. S. Shivaji, Dr. V.M. Tiwari, Dr. T. Meloth, Dr. Subba Rao, S. K. Mehta and many more. Dr. S.K. Das and Dr. Ravindran and Dr. M.Sudhakar also attended the proceedings. It was an extremely successful event which paved the way for the following Conferences on the subject.

THEMES

A. Climate Change – Current assessment, International/India response and policies

Changing climate scenario, tele connections of monsoons.

B. Status of Himalayan Glaciers

Health of glaciers, Response to global warming.

C. Geopolitics of the Poles (Arctic, Antarctic & Himalaya)

Coming to terms with Ice free Arctic, Pressures on Antarctic Treaty and sustainable development in Himalaya.

D. Arctic and Antarctic Glacial Research

Insight into glaciological and palaeoclimate research in Polar Region.



SaGHAA 2017: Focussing Climate Change

Trends, Strategies and Solutions

FIRST CALL

Date: November 30 and December 1, 2017

Tentative Programme

SESSIONS

Inaugural Session: Climate Science Policy Issues

Theme 1: Climate Change – Current assessment, International/India response and policies

Theme 2: Status of Himalayan Glaciers

Rapid Shots: 8 Presentations for 7 Minute each By Research Students

Theme 3: Geopolitics of the Poles (Arctic, Antarctic & Himalaya)

Theme 4: Arctic and Antarctic Glacial Research

Tentative list of Participants

SPEAKERS

Prof A L Ramanathan, SES, JNU

Dr Akhilesh Gupta, Head, SPLICE, DST

Dr A K Singh, Director, DCFR

Dr Amir Khan, Delhi University

Dr Amit Dharwadkar, Director, GSI

Dr Anil Bhardwaj, Director, PRL

Prof Anil K Gupta, Director, WIHG

Dr Anil V Kulkarni, DV Scientist, IISC, Bangalore

Dr Ankit Pramanik, Arctic research, Svalbard, Norwegian Polar Institute

Dr Anoop Tiwari, Scientist E, NCAOR

Dr Anupam Sharma, OSD, DAE

Prof A P Dimri, SES, JNU

Dr Argha Banerjee, Assistant Professor, IISER, Pune

Dr Arild Sundfjord, Research Scientist, Oceanography, Norwegian Polar Institute

Dr Ashwagosh Ganju, Director, SASE

Prof Bimal N Patel, Director and Professor of Public International Law Gujarat National Law University, Gujarat

Dr Dagfinnur Sveinbjörnsson, CEO, Arctic Circle

Dr D K Aswal, Director, NPL

Dr D P Dobhal, Wadia Institute of Himalayan Geology, Scientist E

Prof Dhruv Sen Singh, SASG, Lucknow University

Dr E N Rajagopal, Director, NCMRWF

Dr G A Ramdass, Principal Scientist, NIOT

Dr Gufran Beig, Project Director, IITM

Dr Kim Holman, International Director, Norwegian Polar Institute

Dr K J Ramesh, DG, IMD

Dr H S Negi, Scientist E, SASE

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Dr Luther Rangreji, Director, MoEA

Dr M N Rajeevan, Secretary MoES

Dr M R Bhutiyani, Director, DTRL

Dr M Ravichandran, Director, NCAOR

Dr M Sudhakar, Director, CMLRE

Dr Manish Tiwari, Scientist E, NCAOR

Dr Milap Chand Sharma, Professor, SSS, JNU

Dr N C Pant, Professor, DU

Prof Nalan Koc, Research Director, Norwegian Polar Institute

H E Nils Ragnar Kamsvåg, Norwegian Ambassador

Dr Nuncio Murukesh, Scientist C, NCAOR

Dr P S Goel, Former Secretary, MoES

Dr Parmanand Sharma, Scientist E, NCAOR

Dr Rameshwar Bali, Professor, CASG, Lucknow University

Dr R K Ganjoo, Professor, University of Jammu

Dr Rahul Mohan, Scientist E, NCAOR

Dr Rajiv Nigam, Scientist G, NIO

Dr Rakesh K Mishra, Director, CCMB

Dr Ravi S Nanjundiah, Director, IITM

Dr Ravishankar C N, Director, CIFT

Dr Richard Hawoth, Adjunct Professor, Dalhousie University, Halifax, Nova Scotia, Canada

Dr R Ramesh, ISRO, GBP

Dr S A Romshoo, Head of Earth Science Dept, Kashmir University

Dr S C Kar, Scientist G, NCMRWF

Dr S C Shenoi, Director, INCOIS

Dr S C Tripathy, Scientist D, NCAOR

Dr S K Parcha, Scientist, WHIG, Dehradun

Prof Sanjay Chaturvedi, Professor, Punjab University

Dr Satheesan K, Cochin University

Dr Shailesh Nayak, Former Secretary, MoES

Dr S Rajan, Former Director, NCAOR

Dr S Shivaji, Center for Cellular and Molecular Biology, Hyderabad

Dr S Suresh Babu, Head and Scientist SF, VSSC, ISRO

Dr S Mukherjee, GSI, Faridabad

Dr Swati Basu, Scientific Secretary, PSA

Dr Tanu Jindal, AITETSM, Amity University

Dr Tapan Misra, Director, SAC, Ahmedabad

Dr T N Krishnamuthy, Professor Emeritus, Florida State University

Dr Thamban Meloth, Scientist F, NCAOR

Dr Uttam Sinha, Fellow, IDSA

Dr V D Mishra, SASE, Chandigarh

Dr V K Soni, Scientist E, IMD

Dr V M Tiwari, Director, NGRI

Dr Walter Roest, Senior Research Scientist, IFREMER