



National Conference on

Science & Geopolitics of Arctic & Antarctic

September 29th-30th, 2015 India international Centre, New Delhi, India





Organizing Committee

Dr DPS Seth,

Former Secretary, BSNL, Member TRAI

Dr Rasik Ravindra,

Panikkar Professor to ESSO, MoES

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Dr K J Ramesh, Advisor, MoES.

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Context /

Changes in the Arctic, Antarctica and Himalayas 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 its 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 six years now. To begin with, a National Conference was organised in 2011 followed by an International Conclave in 2013 based on this convergence. The 2015 edition is being conceived as a national conference that will enable the scientific and non-scientific networked group of stakeholders to interact on a single platform to enable greater amalgamation of national research with ground truthing.

The event, metaphorically named the SaGAA (Science and Geopolitics of Arctic & Antarctic), 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 and Antarctic are based on science, it becomes important to debate issues on a platform where inter-disciplinary issues can be raised. The backdrop of the Conference, as always remains the Antarctic Treaty (which came into force in 1961, acceded to by India in 1983) which importantly does not renounce territorial claims. The Protocol to it on Environmental Protection (which came into force in 1998). whose main objectives are that the polar regions should be free of international discord and co-operative programmes of scientific, technical and educational value are to be promoted among nations for protecting the environment and the associated ecosystems.

The National Conference on SaGAA (actually SaGAA III), will highlight all ongoing research and scientific studies in the subcontinent and at the same time will showcase the way forward for further negotiations and policies.

Focus /

Climate change and technological advancement have acted as big contributors in providing greater accessibility to the Arctic and the Antarctica region. The rapidly changing polar realms initiates 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 polar 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 to relook at our polar 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 polar 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 /

I-SaGAA 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, 2012 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; Southern ocean and solar impact: sea ice melting, ice core studies and paleo-climate; Southern ocean experiments; and, Geology: geophysical studies glacial and fluvial and marine environments. Theses identified themes helped for enhancing the holistic understanding of the Polar realms by synergising geopolitics and science.

Senior scientists such as Dr. P S Goel, Dr. Shailesh Nayak, Prof. John Turner, Dr. Timo Koivurova, Dr. Victor Smetacek, Dr. John P. Bowman, Prof. Nalan Koc, Prof. John M. Reynolds, Dr Rasik Ravindra, Dr. George John, Dr. M. Sudhakar, Dr. S. Shivaji, Dr. Ajit Tyagi, Prof. Sanjay Chaturvedi, Dr. Vijay Sakhuja, Dr. Ajai Saxena, Dr. P. A. Loka Bharathi, Dr. Maria Judith, Dr. Savita Kerkar, Dr. B. Meenakumari, Dr. C.N. Ravishankar, Dr. Pravin Puthra, Prof R. Ramesh, Dr. S. W. A. Naqvi, Prof. A. K. Gwal, Dr. T. Meloth, Abhinav Srivastava, Dr. C.G. Deshpande, Dr. Sandip Oza, Dr. Nityanand Singh, Dr. S Rajan, Dr. R P Lal, Jai Prakash Chaubey, Prof. S. K. Tandon, Prof. A. L. Ramanathan and Dr. D.P. Dobhal attended apart from representatives from all the

countries such as United Kingdom, Finland, Germany, Australia, Norway and Chile. The participation of about 100 scientists was observed in the Conference including many reputed and renowned scientists from all over the world along with students, and research scholars from different parts of India. Marvelously remarkable was the fact that the number of participants remained the same from the first day to the last day of the conference marking the riveting nature of the proceedings.

SaGAA National 2011

The National Conference on Science and Geopolitics or Arctic and Antarctic was held in...... A consortium of scientists, policy makers and activists were put together to put forward balanced and enabling views on global positions outlining the role of developing nations such as India. The Plenary Session/ Technical Session 1 titled "Changing Global Positions and Legal Framework of the Polar Realms" began with Dr. Sanjay Chaturvedi's presentation of his paper titled "Emerging Science-Geopolitics Interface in the Antarctic: The Indian Challenge". The sessions were graced with the presence of Dr. Shailesh Nayak, Prof. Pandey, Dr. Ajit Tyagi, Dr. N. C. Mehrotra, Dr. Anil K. Gupta, Dr Rasik Ravindra, Dr. S. Shivaji, Dr. S.L. Jain, Dr. V.M. Tiwari, Dr. T. Meloth, Dr. Subba Rao, S. K. Mehta, Prof. Dhruv Sen Singh, and Dr. IML Das. The last session saw Prof. G.N. Nayak, Dr. R. Ramesh, Dr. R.P. Lal, Prof. A.K. Gwal, Dr. V.D. Mishra, Prof. Mihir K. Dash and Dr. B. C. Arya. 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.

Science & Geopolitics of Arctic & Antarctic SaGAA 2015

Date: 29 September, 2015

Trends, Strategies and Solutions

	THEME: Geopolitics of the Polar Region	
SESSION - I	CHAIR: Dr Bimal Patel, Director and Vice Chancellor, Gujarat National University	CO-CHAIR: Dr Vijay Sakhuja, Director Research, ICWA
	SPEAKERS: Dr. B Patel, Director and Vice Chancellor, Gujarat National University Dr Sanjay Chaturvedi, Professor Department of Political Science, Punjab University Dr Vijay Sakhuja, Director Research, ICWA Dr Uttam Sinha, Research Fellow, Institute for Defense Studies and Analysis Shri Swash Pawan Singh, Secretary to the Vice-President of India	
	Rep. from Legal and Treaty Division, MEA. Govt. of India	
SESSION - III	THEME: Climate Change in the Polar Region and the Geopolitics of it	
	CHAIR: Director, NCAOR, Goa	CO-CHAIR: Dr K J Ramesh, Advisor, MoES
	SPEAKERS: Dr Rasik Ravindra, Panikkar Professor at ESSO, MoES Dr R. Ramesh, Outstanding Scientist, Physical Research Laboratory Dr R. Krishnan, Scientist G, IITM Dr Thamban Meloth, Senior Scientist, NCAOR Dr Rahul Mohan, Senior Scientist, NCAOR Prof. Milap Sharma, CSRD, JNU Dr Gufran Bieg, Joint Director, IITM THEME: Tourism Industry and the Poles	
	CHAIR: Prof Sanjay Chaturvedi	
	REPRESENTATIVES FROM IAATO: Ms Urmi Popat, Architect, Manas Publication Dr Anoop Tiwari, Scientist D, Department Polar Environment, MoES Dr Rasik Ravindra, Panikkar Professor at ESSO, MoES Group/panel discussion with Industry undertaking Antarctica tourism in India	
SESSION - IV	THEME: Resources Potential, marine protected areas and geopolitics	
	CHAIR: Dr SWA Naqwi, Director, CSIR- National Institute of Oceanography	CO-CHAIR: Dr M. Sudhakar, Advisor, MoES and Director CMLRE
	Dr V.N.Sanjeevan, Former Director, The Centre for Marine Living Resources & Ecology (CMLRE), Kochi Dr S. Rajan, Former Director, NCAOR Dr. Ashwini Kumar Choudhary, Professor, Institute Instrumentation Centre (IIC), IIT Roorkee Dr. Satish Kumar, Scientist and Chief Controller R & D, Technology Management, Defence Research and Development Organization (DRDO) Capt. K. N. Deboo, Director and Principal, Anglo-Eastern Maritime Training Centre	

LIGHTS

Science & Geopolitics of Arctic & Antarctic SaGAA 2015

Registration Form

I would like to join the Science & Geopolitics of Arctic & Antarctic. My details are given below: Name: ______ Organisation: Contact Address: Tel: _____ Email: _____ Email: _____ I am interested to join the conference on Arctic & Antarctic because I am a: ☐ Official /Scientist ☐ Activist Professor Researcher **Registration Fee** Student Delegates – ₹500 □ RA/ Faculty Delegates/Consultant – ₹1000 ☐ Delegate (1) representing research institutions/NGOs – ₹2000 ☐ Delegates (2) representing research institutions/NGOs – ₹3000 ☐ Delegate (1) representing other institutions – ₹5000 Delegates (2) representing other institutions – ₹8000 Delegate Speakers can avail a special 20 per cent discount on registration fees. Sign _____ Date _____