



ANNUAL REPORT

LIGHTS

SUMMARY OF ACTIVITIES UNDERTAKEN DURING

1, APRIL 2024 - 31 MARCH 2025

**504, Bhikaji Cama Bhawan,
Bhikaji Cama Place,
New Delhi-110066**

LIGHTS Representation at National and International Fora

During the year 2024–25, **Dr. Sulagna Chattopadhyay**, Secretary General of LIGHTS, represented the organizations at several key national and international fora. Her participation across conferences, training workshops, and academic platforms reflected LIGHTS' commitment to global dialogue on sustainability, climate change, polar governance, and geoscientific knowledge dissemination.

- **First Interregional Scientific Forum – "The Arctic: Our Global Neighbourhood", May 2024**

Venue: University of Petrozavodsk, Republic of Karelia, Russia

On 23 May 2024, Dr. Sulagna Chattopadhyay, participated at the *First Interregional Scientific Forum– The Arctic: Our Global Neighbourhood*, held at the University of Petrozavodsk, Republic of Karelia, Russia. Her presentation focused on India's evolving role in Arctic diplomacy and the critical need for inclusive, multilateral frameworks that recognize the interconnectedness of Arctic and non-Arctic regions. Other distinguished speakers included Professor Alexander Sergunin (Saint Petersburg State University), Mr. Anurag Bisen (Senior Research Fellow, Vivekananda Foundation, India), Mr. Raj K. Sharma (Senior Research Fellow, Centre for National Strategy, India), and Dr. Elena Sokolovskaya (Leading Research Fellow, Saint Petersburg State University).



Dr. Sulagna Chattopadhyay at the Arctic Forum in Russia.

- **Fifth Northern Sustainable Development Forum & Scientific Seminar – "Culture and Art of the Arctic", 25th September 2024**

At this interdisciplinary online seminar hosted by the Northern Sustainable Development Forum and the popular science magazine *Culture and Art of the Arctic*, Dr. Chattopadhyay contributed a talk examining **cultural sustainability, climate narratives, and public communication strategies** within Arctic discourse.

- **Naval War College Interaction**

Venue: Naval War College, Goa, India (September 2024)



Dr. Sulagna Chattopadhyay engaged in a focused strategic dialogue with Dr. Muthu Krishnan, Head of the Polar Division at the Naval War College, Goa. This in-depth, 1.5-hour scholarly exchange explored the strategic implications of the Northern Sea Route, with broader reflections on polar geopolitics and the critical role of scientific presence in contested spaces such as the Arctic and Antarctica.

Dr. Chattopadhyay and Dr. Krishnan discuss the Northern Sea Route at Naval War College, Goa.

- **First Capacity Building Training-cum-Workshop on UNESCO Global Geoparks**

Venue: UNESCO House, New Delhi

Dr. Sulagna Chattopadhyay participated in a workshop on the UNESCO Global Geoparks framework, contributing insights on science communication and public engagement in ecologically sensitive regions of India. The event featured a video address by H.E. Mr. Vishal V. Sharma, Ambassador and Permanent Representative of India to UNESCO; a keynote by Mr. V. L. Kantha Rao, Secretary, Ministry of Mines and Chair, National Committee on Geoparks; and remarks by Ms. Neeta Prasad, Joint Secretary, Ministry of Education and Deputy Secretary General, Indian National Commission for Cooperation with UNESCO. (From 23–26 September 2024)



Dr. Sulagna Chattopadhyay shares insights on science communication at the UNESCO Global Geoparks workshop

- **"The New Superpower: India's Role in the Arctic", 13th October 2024**

Venue: Youngs, City Centre, Oslo, Norway.

At the seminar "India: The New Superpower", held in collaboration with Det Modern India, Fridtjof Nansen Institute, the Norwegian Center for Geopolitics, UiT Norway's Arctic University, and the Embassy of India, Dr. Sulagna Chattopadhyay, delivered a lecture on India's Arctic Policy (2022) and the Global South's role in northern governance. Nominated by the Ministry of External Affairs, she also participated in a panel on Arctic security and cooperation. Dr. Chattopadhyay highlighted India's scientific and strategic engagement in the Arctic over recent decades, underscoring the importance of inclusive, multilateral frameworks for sustainable governance. Her



intervention drew attention to India's capacity for climate leadership and its long-standing commitment to polar research. The event also featured Indian Ambassador Acquino Vimal, who spoke on India's growing global influence.

Dr. Sulagna Chattopadhyay discusses India's Arctic Policy at the 'India: The New Superpower' seminar.

- **"Arctic Connected: Strategic Connections between the Arctic and the Indo-Pacific" - 19th October, 2024.**

Venue: Arctic Circle Assembly, Reykjavik, Iceland

At the event "Arctic Connected: Strategic Connections Between the Arctic and the Indo-Pacific", organized by the Ted Stevens Center for Arctic Security Studies, USA, Dr. Sulagna Chattopadhyay, served as a featured speaker. She highlighted the strategic and scientific intersections between the Arctic and Indo-Pacific, emphasizing India's role in fostering ethical and research-driven engagement.

Other speakers included Hema Nadarajah (Manager, Asia Pacific Foundation of Canada; Arctic360), and Mike Sfraga (Chair, U.S. Arctic Research Commission; Polar Institute, Wilson Center, USA). The session was moderated by Matthew Hickey (Associate Director, Ted Stevens Center).



Dr. Sulagna Chattopadhyay discusses India's role in Arctic-Indo-Pacific strategic connections at the 'Arctic Connected' event.

- **"Quality of Life in the Arctic" Online Conference, November 2024**

Venue: University of Petrozavodsk, Republic of Karelia, Russia

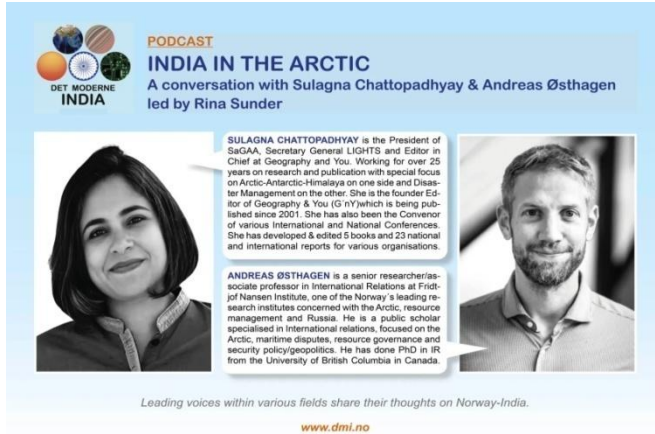


Dr. Sulagna Chattopadhyay, Director of the Institute of Parliamentary and Administrative Studies (PARI), Republic of India, participated in the International Forum "Quality of Life: Modern Challenges and Development Vectors" held at Petrozavodsk University, Russia, from November 5 to 8. The forum brought together around 300 participants from six countries—

Belarus, India, China, Uzbekistan, Cyprus, and Kyrgyzstan.

Dr. Chattopadhyay addressed the plenary session on November 6. Other distinguished speakers included Anna Aleksandrovna Braines (Ministry of Education and Science, Russia), Mikhail Evgenievich Okhlopkov (Minister of Health, Republic of Karelia), and A.V. Lomako (First Deputy Minister of Economic Development).

Podcasts and Media Engagement



On 10 October 2024, Dr. Sulagna Chattopadhyay featured in a special podcast episode hosted by *Det Moderne India*, titled "**India in the Arctic**". Dr. Chattopadhyay brought her research experience to the conversation, offering deep insights into India's evolving engagement with the Arctic region. Her contributions emphasized the strategic intersections of the Arctic-Antarctic-

Himalaya triad and highlighted India's growing scientific and policy interests in the Arctic over the past several decades.

Link to the podcast -

<https://open.spotify.com/episode/0mpozVtxzRsgOC0h9GdfPs?si=ZQ91BWdESV-6O0rECyF3sg>

Memorandum of Understanding (MoU) with the University of Tasmania

On 17 July 2024, a Memorandum of Understanding (MoU) was formally signed between the University of Tasmania and organisation Parliamentary and Administrative Research Institute (PARI) for organising short term training courses for Indian Government officers. The ceremony was graced by Professor Rufus Black, President and Vice-Chancellor of the University of Tasmania; Professor Stuart Crispin, Executive Dean of the College of Business and Economics; and Ms. Tristanne Scott-Durairajah, Associate Director, Learning Abroad and Partnerships.

PARI was represented by Dr. Prasad, Director at PARI, who signed the MoU with Professor Black.



MoU signed between University of Tasmania, Parliamentary and Administrative Research Institute (PARI).

Workshop on Geosciences and Society, Hyderabad

On 17th March 2025, the Workshop on "Geosciences and Society" was held at the GSI Training Institute, Hyderabad, jointly organized by the Krishnanunni Memorial Charitable Trust (KMCT) and the Geological Survey of India (GSI). The event brought together eminent scientists, policy leaders, and experts to reflect on the evolving relationship between geosciences and societal development. **Dr. Sulagna Chattopadhyay**, delivered a talk on "**Ensuring a Science-Society Connect**". The workshop was held under the patronage of **Dr. Shailesh Nayak** (President, KMCT; Director, NIAS & Former Secretary, MoES), **Dr. M. Ravichandran** (Secretary, Ministry of Earth Sciences), and **Shri Asit Saha** (Director General, GSI). It was convened by **Dr. Rasik Ravindra**, Former Director, National Centre for Polar and Ocean Research (NCPOR), and **Shri J. K. Bhalla**, Former Director, Geological Survey of India (GSI).

Indian Ocean Region (IOR) Conference On March 25, 2025

LIGHTS, through the active participation of Dr. Sulagna Chattopadhyay, reaffirmed its commitment to global environmental and economic policy discourse at the conference titled "*Indian Ocean Region (IOR): Way Forward for the IORA*", held at Sapru House, New Delhi.

Dr. Chattopadhyay, Editor-in-Chief of *Geography and You* and Secretary General of LIGHTS, participated as a discussant in a high-level panel alongside international and regional experts. Her interventions provided a critical perspective on the intersections of environmental sustainability, blue economy governance, and India's strategic positioning within the Indian Ocean Rim Association (IORA). The conference was chaired by Ambassador Rajiv Bhatia, Former Director General of the Indian Council of World Affairs (ICWA), and featured lead remarks by Prof. S.K. Mohanty from the Research and Information System for Developing Countries (RIS). Other discussants included Dr. Jessica Fraser of Nelson Mandela University, South Africa, and Admiral Jayantha Perera (Retd.), Former Chief of the Sri Lanka Navy.



Dr. Chattopadhyay's participation highlighted the voice of civil society in regional policy discussions and emphasized the need for inclusive approaches to blue economy strategies, especially considering the vulnerabilities of Small Island Developing States (SIDS).

Dr. Sulagna Chattopadhyay with international and regional experts at the *Indian Ocean Region (IOR)* Conference

Webinar on *Antarctic Science & Geopolitics: Indian Perspectives* at Manipal Academy of Higher Education

On March 27, 2025, the Centre for Climate Studies, MAHE, hosted a focused webinar titled “*Antarctic Science & Geopolitics: Indian Perspectives*” with Dr. Sulagna Chattopadhyay, President of SaGAA and Secretary General of LIGHTS, as the keynote speaker.

Topics Covered:

- Strategic emergence of Antarctica in the 20th century and early territorial claims by countries like the UK, Norway, and Argentina.
 - India's advocacy for equitable access to Antarctica in the UN in 1953 and its subsequent scientific missions under Operation Gangotri.
 - Focus of India's mission on mastering survival in extreme environments, not on resource extraction, which enabled its entry into the Antarctic Treaty System.
 - India's operational research stations: Maitri and Bharati.
 - Concerns about India's limited visibility in emerging governance structures like Antarctic Specially Managed Areas (ASMAs).
- Challenges posed by rising, largely unregulated tourism in Antarctica.
- The geopolitical importance of East Antarctica and India's role in shaping future governance frameworks.



The session, attended by more than 25 students, included an engaging Q&A, reflecting strong interest in polar geopolitics and the role of science diplomacy.

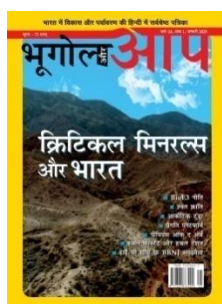
Dr. Sulagna Chattopadhyay delivers the keynote address at the *Antarctic Science & Geopolitics: Indian Perspectives* webinar

Publication Initiatives

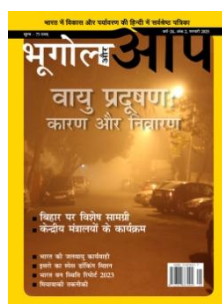
After a hiatus of three years, *Bhugol aur Aap*, the Hindi edition of our magazine, was successfully revived in December 2024. This relaunch marks a renewed commitment to regional language science communication, ensuring greater accessibility and outreach to Hindi-speaking audiences.



December 2024



January 2025



February 2025



March-April 2025

LIGHTS LECTURE SERIES: Lecture by Partha Chatterjee on

"How to Use Visuals as Content"

On 22 January 2025, LIGHTS hosted a thought-provoking lecture by renowned filmmaker and critic Partha Chatterjee at its New Delhi office (504, Bhikaji Cama Bhawan). Titled *"How to Use Visuals as Content,"* the session explored the nuanced relationship between visual media and narrative construction.

Mr. Chatterjee shared insights from his acclaimed 1988 documentary on B.C. Sanyal, reflecting on how visuals can convey layered meanings and ethical imperatives. Drawing upon landmark works such as Leni Riefenstahl's *The Triumph of the Will*, James Agee and Walker Evans' *Let Us Now Praise Famous Men*, Roy DeCarava's *The Sweet Flypaper of Life*, and Sunil Janah's visual documentation of the Bengal famine, the lecture emphasized the moral responsibility of using media for communication.

The session was attended by members of the LIGHTS team, including Dr. Sulagna Chattopadhyay, Dr. Narmadeshwar Prasad, Dr. Rajoshree Ghosh, Ms. Hiteshika Sharma, Mr. G. Thangkhansuan, Ms. Dharna Tehlan, Mr. Nilesh Kumar, and Mr. Amit Kumar. A dynamic interactive segment followed the lecture, during which participants engaged Mr. Chatterjee on techniques for framing and contextualizing visuals effectively within research, storytelling, and public communication. It concluded with a lively interactive segment, where participants discussed the challenges and opportunities of framing visuals effectively in storytelling and communication.



LIGHTS team with filmmaker Partha Chatterjee

The interaction was deeply insightful, sparking meaningful dialogue and reflection on the ethical and creative dimensions of visual media. It underscored LIGHTS' commitment to enhancing the role of visual literacy in science and environmental communication.

Lecture on 'Climate Change, Polar Connections, and Governance' at Hansraj College, University of Delhi

On 7 March 2025, LIGHTS-SaGAA organized a lecture at Hansraj College, University of Delhi, in association with HARITIMA, the environmental society of the college. Prof. N.C. Pant, Vice-President, LIGHTS, delivered a talk on "Climate Change, Polar Connections, and Governance."

The session included a welcome note by Dr. Pooja Jha Maity, Assistant Professor, Botany. Dr. Rajoshree Ghosh introduced LIGHTS, its objectives, and the MoES Book Project.

Prof. Pant's engaging lecture focused on the impact of climate change in the polar regions, India's role in polar research, and the geopolitical issues surrounding Antarctica. The students appreciated the talk, particularly the use of graphs and visuals. Feedback revealed a strong interest in topics such as climate injustice, geopolitics, and environmental policies. The session was rated outstanding by all attendees.



Prof. N.C. Pant delivers an engaging lecture on climate change and Polar Geopolitics at Hansraj College, University of Delhi.

Internship and Research Initiatives

The following students did Internship with LIGHTS.

Intern Name	University	Duration of the Internship	Submitted Paper Titled
Mr. Gurudatta Acharya	Manipal University	27th May to 27th July 2024	Assessment of Shipwrecks in the Antarctic Region
Ms. Anmol Shekhawat	Manipal University	27th May to 27th July 2024	Environmental Impact of Tourism in Antarctica
Ms. Shreya Dash	The English and Foreign Language University	29 July 2024 to 27 September 2024	—

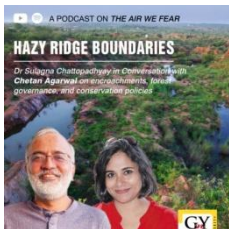
GnY Live Podcast Series by LIGHTS

In an era marked by environmental urgency and an overflow of fragmented information, *Geography and You* (GnY) launched the *GnY Live Podcast Series* to foster informed, interdisciplinary dialogue on the world's most pressing environmental and social challenges. Hosted on Spotify and YouTube, and *Geography and You* website, this series builds a vibrant community of listeners seeking not just awareness but action-oriented solutions.


Each episode is accompanied by a detailed blog published on the *Geography and You* website. These blogs include reference links, expert insights, and additional resources, offering deeper engagement and context for listeners and readers alike. This multi-platform approach reinforces LIGHTS' commitment to accessible, knowledge-rich communication that translates awareness into impact.

PODCAST SERIES - AIR WE FEAR	
	<p>Title: Monitoring India's Air Pollution Guest Speaker: Prof. Gufran Beig, Chair Prof., National Institute of Advanced Studies Youtube link: https://www.youtube.com/watch?v=nHDTUGgJET0</p>
	<p>Title: Nothing Pink About Your Health Guest Speaker: Dr. Arvind Kumar, Chairman, Institute of Chest Surgery and Lung Transplantation, Medanta. Youtube link: https://www.youtube.com/watch?v=StiOyXkPjmc</p>
	<p>Title: Drone Monitoring for Bettering the Air Guest Speaker: Dr. K.J. Ramesh, Former Director General, India Meteorological Department Youtube link: https://www.youtube.com/watch?v=RjjZsK3kSo0</p>

	<p>Title: Ailing Glaciers: Aerosols Warming the Himalayas Guest Speaker: Prof. N.C. Pant, Former Senior Professor, University of Delhi Youtube Link: https://www.youtube.com/watch?v=uriIP_Zdi-Y&list=PLVoHeBAAtotzxULnT0QXDj1cYCLH7-&index=6</p>
	<p>Title: Taking Satellites to Heart Guest Speaker: Prof. Sagnik Dey- IIT Delhi Youtube Link: https://www.youtube.com/watch?v=wdiUZnZOQvk&list=PLVoHeBAAtotzxULHnT0QXDj1cYCLH7-To&index=5</p>
	<p>Title: Emission Markets and Congestion Tax Guest Speaker: Dr. Anant Sudarshan, Associate Professor, University of Warwick Youtube Link: https://www.youtube.com/watch?v=Ijzrul-vm7Q&list=PLVoHeBAAtotzxULHnT0QXDj1cYCLH7-To&index=4</p>
	<p>Title: Can The State Be Sued for Air Pollution Deaths? Guest Speaker: Shri Raj Panjwani, Senior Advocate, Supreme Court of India Youtube Link: https://www.youtube.com/watch?v=wBW3eUxpnz4&list=PLVoHeBAAtotzxULHnT0QXDj1cYCLH7-To&index=3</p>
	<p>Title: Catalyzing Change: Youth Activism Combating Air Pollution Guest Speaker: Mr. Abhiir Bhalla, Board Advisor, Commonwealth Human Ecology Council Youtube Link: https://www.youtube.com/watch?v=AqM7SzNALi0&list=PLVoHeBAAtotzxULHnT0QXDj1cYCLH7-To&index=2</p>

	<p>Title: Hazy Ridge Boundaries: Encroachments Forest Governance, and Conservation Policies</p> <p>Guest Speaker: Mr. Chetan Agarwal, Senior Fellow at CEDAR</p> <p>Youtube Link: https://www.youtube.com/watch?v=EubQIH0HE-E&list=PLVoHeBAAt0ztxULHnT0QXDj1cYCLH7-To&index=1</p>
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PODCAST SERIES - BUILDING EDUCATED INDIA	
	<p>Title: NEP and Rising Salaries</p> <p>Guest Speaker: Prof. Sachidanand Sinha, President, Institute of Indian Geographers</p> <p>Youtube Link: https://www.youtube.com/watch?v=XDeBSXN8e2s&list=PLVoHeBAAt0zsF9Ev8_8_qDtoNT_nBsQWd&index=5</p>
	<p>Title: Vanishing Grants: The Fate of Higher Education in India</p> <p>Guest Speaker: Prof. Tarun Kanti Naskar, General Secretary, All India Save Education Committee</p> <p>Youtube Link: https://www.youtube.com/watch?v=-cRBzkVEcOY&list=PLVoHeBAAt0zsF9Ev8_8_qDtoNT_nBsQWd&index=4</p>
	<p>Title: Hope or Hurdle? NEP 2020 and the Education of the Marginalized</p> <p>Guest Speaker: Ms. Annie Namala, Executive Director, Centre for Social Equity and Inclusion (CSEI)</p> <p>Youtube Link: https://www.youtube.com/watch?v=Vp8I0qAFZh0&list=PLVoHeBAAt0zsF9Ev8_8_qDtoNT_nBsQWd&index=3</p>
	<p>Title: Three Language Formula: Choice vs Imposition</p> <p>Guest Speaker: Prof. Anvita Abbi, Director, Centre of Oral and Tribal Literature, Sahitya Akademi, New Delhi, and President of the Linguistic Society of India.</p> <p>Youtube Link: https://www.youtube.com/watch?v=-jq5mj9587w&list=PLVoHeBAAt0zsF9Ev8_8_qDtoNT_nBsQWd&index=2</p>

	<p>Title: Sale! Sale! Sale!: Private Education Guest Speaker: Prof. Jawahar Nesan, Vice Chancellor, Saveetha University, Chennai, India. Youtube Link: https://www.youtube.com/watch?v=0ttVmfXYxv0&list=PLVoHeBAAtozsF9Ev8_8_qDtoNT_nBsQWd&index=1</p>
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Event Report: ICWA Panel Discussion on “India’s Engagement in the Polar Regions”

On February 4, 2025, the Indian Council of World Affairs (ICWA) organized a panel discussion titled “*India’s Engagement in the Polar Regions*” at Sapru House, New Delhi. The event convened leading experts, scholars, and policymakers to explore India’s growing interests and responsibilities in the Arctic and Antarctic regions, particularly in the context of climate change, scientific exploration, and international cooperation.

Representing LIGHTS at the discussion were Dr. Rasik Ravindra, Senior Vice President, and Prof. N.C. Pant, Vice President. Dr. Ravindra, a renowned polar researcher, offered deep insights into India’s scientific missions and long-term vision for the polar regions. Prof. Pant, an eminent geographer, provided valuable perspectives on the geopolitical and environmental dimensions of polar engagement, underscoring the need for integrative research and policy frameworks. Their participation highlighted LIGHTS’ active role in promoting science diplomacy and contributing to national and global dialogues on critical environmental issues.

Dinner Dialogue with the members of the Northern Forum - 21 March, 2025

As part of its ongoing commitment to fostering international cooperation and knowledge exchange, LIGHTS participated in a Dinner Dialogue with members of the Northern Forum, creating a platform for informal yet impactful discussions on shared environmental and developmental priorities. The engagement centered on themes of sustainable development, environmental governance, Arctic research, and scientific collaboration, highlighting the significance of global partnerships in addressing pressing climate and policy challenges.

Key members of LIGHTS—Dr. Rasik Ravindra, Senior Vice President and Former Director of NCPOR; Dr. Sulagna Chattopadhyay, Secretary General; and Dr. Narmadeshwar Prasad, Treasurer—played an instrumental role in the interaction. Their insights on India’s environmental frameworks, polar research engagements, and policy priorities contributed richly to the dialogue, reflecting LIGHTS’ active role in global sustainability discourse.

Participants from the Northern Forum included:

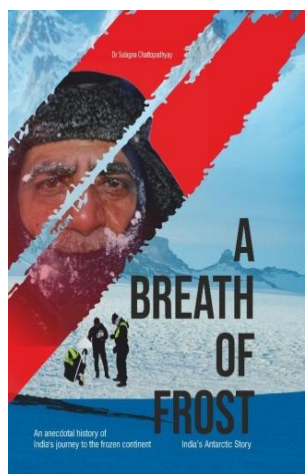
- **Dr. Nadezhda Kharlampieva**, is an Associate Professor at the Department of World Politics, Saint Petersburg State University, with a PhD in History and senior researcher at the Arctic and Antarctic Research Institute (AARI), Russian Federation, a Goodwill Ambassador for the Northern Forum and editor of the International Magazine 'Art and Culture of the Arctic'.
- **Dr. Daria Burnasheva**, Senior Lecturer at Arctic State Institute of Culture and Arts, Sakha Republic.
- **Indraraj Dodiya**, Director, Dodiya Enterprises LLC, Russia.



The dialogue facilitated a multidimensional exchange spanning traditional knowledge systems, Arctic research, and environmental policy frameworks, laying the groundwork for future cooperative initiatives between India and Russia.

MoES Book Project – *A Breath of Frost: An Anecdotal History of India’s Journey to the Frozen Continent*

LIGHTS successfully completed the prestigious Ministry of Earth Sciences (MoES) Book Project, resulting in the publication of *A Breath of Frost: An Anecdotal History of India’s Journey to the Frozen Continent*. This comprehensive volume chronicles over four decades of India's engagement with Antarctica through the Indian Scientific Expeditions to Antarctica (ISEA).



The book brings together over 120 first-hand accounts from scientists, administrators, naval officers, support staff, and policymakers who played defining roles in India’s polar programme. Through in-depth interviews, archival research, and field documentation, the book captures not only the scientific milestones but also the logistical challenges, emotional experiences, and institutional evolution that have shaped India's Antarctic journey.

The book greatly benefited from the guidance and polar expertise of Dr. Rasik Ravindra, Senior Vice President of LIGHTS and former Director of NCAOR, whose knowledge provided crucial historical and scientific depth to the work.

The cover of *A Breath of Frost: An Anecdotal History of India’s Journey to the Frozen Continent*.