समयुक्ति Newsletter

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Integrated Centre for Adaptation, DRR and Sustainability (ICARS)

समयुक्ति ICARSS

IIT Roorkee - Gr. Noida Campus (NCR), India

Contents

1. **Events** **03**
2. **Collaborative Visit** **04**
3. **Participation at International & National Forum** **05**
4. **RESSUMMIT 2026** **06**
5. **RESSUMMIT at a Glance** **07**
6. **Publications** **11**
7. **Quarterly Feature** **12**



Highlights

The Resilience and Sustainability Summit - Vision 2047

RESSUMMIT - 2026 Edition



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Editorial

Road to 2047 Runs Through Resilience - RESSUMMIT 2026

- Dr. Anil Kumar Gupta

As India pursues its ambitious Vision 2047 agenda, resilience must emerge as a central pillar of national development. Economic growth, infrastructure expansion, industrial progress, and social advancement can only be sustained if they are supported by the capacity to anticipate, withstand, and adapt to a rapidly evolving landscape of risks. Climate change, disasters, industrial accidents, environmental degradation, and public health emergencies are increasingly interconnected challenges. Their impacts extend far beyond immediate losses, affecting livelihoods, investments, ecosystems, and long-term development outcomes. Building resilience is, therefore, no longer a sectoral concern; it is a strategic necessity for India's future.

It is in this context that RESSUMMIT 2026 (16-18 March 2026) assumes particular significance. Organized by the Integrated Centre for Adaptation, Disaster Risk Reduction and Sustainability (ICARS), IIT Roorkee - Greater Noida Campus, the summit brought together policymakers, scientists, industry leaders, development partners, and practitioners to deliberate on pathways for strengthening resilience across sectors and scales. What distinguished the summit was its recognition that resilience cannot be addressed in silos. Discussions woven through four dedicated events, viz. 1. Climate Knowledge Forum, 2. Symposium on Regional Vulnerabilities - Mountains, Coastal and Deserts, 3. Health System in Changing Climate Extremes, and 4. Industrial-Chemical Risk Governance and Preparedness, reflecting the complex realities of today. Equally important was the emphasis on localized solutions, acknowledging that the resilience needs of mountain, coastal, and desert regions require context-specific approaches.

Beyond its deliberations, the summit underscored four critical priorities for India's resilience journey: strengthening the science-policy interface, investing in institutional and human capacities, fostering multi-stakeholder partnerships, and accelerating the translation of knowledge into action. These priorities are essential if resilience is to be mainstreamed into planning, governance, and development investments. The launch of the "ADRES Network Portal - India’s Strategic Knowledge Framework for Climate Change" further signaled a commitment to move beyond research in silos towards integration for strategic knowledge. By promoting collaboration, capacity building, resilience financing, and evidence-based policymaking, the initiative seeks to ensure that resilience becomes an integral component of development practice rather than a response to crises alone.

As India moves toward becoming a developed nation by 2047, the question is not whether risks will emerge, but how effectively they will be managed. The answer lies in building resilient institutions, adaptive communities, safer industries, and sustainable ecosystems. The lasting significance of RESSUMMIT 2026 will not be measured by the conversations it generated, but by the mainstreaming of outcomes into policy and governance processes across key sectors of development. As the nation strives to realize its Vision 2047, its road ahead must indeed run through resilience.

Dr. Anil Kumar Gupta is a noted resilience and sustainability policy-strategist, presently Professor at IIT Roorkee WRDM and leads ICARS (CoE of Govt. of India DST)

Events

National Consultation Meeting

09 January 2026, IIPA, New Delhi

ICARS-IITR organised the National Consultation Meeting on Strategic Research Endeavours in Climate-Knowledge Platform, Adaptation and Disaster Risk Reduction (DRR) at IIPA, New Delhi. The meeting brought together over 40 representatives from Central Ministries, UN agencies, academic institutions, SDMAs, State Climate Change Cells, and NGOs to deliberate on the India Adaptation Dossier 2025, ADRES Climate Knowledge Network Portal, Disaster Risk, Resilience & Recovery (DRRR) Report 2025, and national-level Capacity Need Assessment (CNA) and Training Need Assessment (TNA) initiatives. The consultation generated strategic recommendations for strengthening climate knowledge platforms, institutional capacities, and evidence-based policymaking for climate adaptation and DRR. It also fostered cross-sectoral collaboration and provided valuable inputs for enhancing resilience planning and capacity-building initiatives across India.







Webinar on the "Health Sector Adaptation to Climate Change: Strengthening Hospitals & Care Delivery System"

13 January 2026, Virtual

ICARS-IITR successfully conducted the Webinar 3 of AdaptDMIR Webinar Series on the theme "Health Sector Adaptation to Climate Change: Strengthening Hospitals & Care Delivery System." The webinar brought together experts from IITR, WHO (India), NCDC, NIHFW, and VMMC & Safdarjung Hospital to discuss the growing impacts of Climate Change on healthcare infrastructure and service delivery, while highlighting practical strategies for building climate-resilient hospitals and strengthening health systems. The webinar facilitated knowledge exchange on integrating climate resilience into healthcare planning and underscored the need for inter-institutional collaboration to enhance the preparedness and adaptive capacity of hospitals and care delivery systems against climate-related risks.

Two-Day National Consultation Workshop on Disaster Risk Reduction (DRR) & Climate Action

22-23 January 2026, ICARS-IITR

ICARS-IITR, in collaboration with Bal Raksha Bharat (Save the Children) and supported by Salesforce India successfully organized a two-day National Consultation Workshop at IIT Roorkee-Greater Noida Campus. The workshop aims to strengthen institutional learning and implementation of DRR and Climate Action, with a special focus on child-centric and community-based approaches. It brings together state programme teams, sector experts, and partners to share learnings, best practices, and insights on Emergency Preparedness Plans (EPP), Anticipatory Action (AAP), MEAL systems, and project implementation. The consultation contributes towards building climate resilience, improving preparedness, and enhancing the quality of disaster risk reduction initiatives across India.



Inaugural Ceremony of 12 Weeks Certificate Training Programme on Disaster Risk Reduction and Humanitarian Response (DHRR)

27 January 2026, ICARS-IITR

ICARS-IITR successfully inaugurated the 12 weeks Certificate Training Programme on Disaster Risk Reduction and Humanitarian Response (DHRR) for officials sponsored by the Directorate General of Resettlement, Ministry of Defence, GoI. The inaugural session brought together experts and practitioners from academia, disaster response forces, armed forces, and government institutions, who highlighted the critical role of discipline, leadership, coordination, and policy frameworks in effective DRM. The discussions emphasised the relevance of the Incident Response System, evolving climate and hazard profiles, and the need to integrate emerging technologies such as AI, digital systems, and deep tech into disaster preparedness and response. Drawing from real-world experiences, the speakers underscored the importance of teamwork, SOP-driven operations, humanitarian principles, and skill-based capacity building to enhance professional readiness in the disaster management sector.







Expert Consultation on "Competency Strategy and Framework for CCA-DRR in the Indian Himalayas"

28 January 2026, Virtual

ICARS-IITR, in collaboration with G.B. Pant National Institute of Himalayan Environment (NIHE), organised an Expert Consultation on Competency Strategy and Framework for CCA-DRR in the Indian Himalayas. The consultation brought together experts from government, academia, research institutions, and civil society. This consultation focused on the rapidly evolving climate-induced risk landscape of the Himalayas, emphasizing cascading and multi-hazard risks, the limits of conventional vulnerability assessments, and the need for dynamic, region-specific adaptation approaches. Discussions highlighted key gaps in data access, early warning systems, manpower, and institutional coordination, while stressing community participation, traditional knowledge integration, and collaboration among institutions, policymakers, and local stakeholders.

Collaborative Visit

Collaborative visit of officials from GEAG

08 January 2026, ICARS-IITR

Prof. Shiraz Wajih, President, Gorakhpur Environmental Action Group (GEAG), and Ms. Nivedita Mani, Secretary - Research & Communications, GEAG, visited ICARS-IITR for a collaborative interaction. The visit facilitated meaningful discussions on environmental action, research priorities, and opportunities for collaborative initiatives in climate resilience and sustainable development. The interaction strengthened institutional engagement and identified potential areas for future collaboration in research, environmental action, and knowledge exchange.





Collaborative visit of Senior Trade Adviser - Adaptation and Resilience, British High Commission, India

05 February 2026, ICARS-IITR

Ms. Ekta Gupta, Senior Trade Adviser - Adaptation and Resilience, British High Commission, India, visited ICARS-IITR, Greater Noida Campus for a collaborative interaction. The meeting provided an opportunity to showcase ICARS ongoing initiatives and strategic priorities while exploring potential partnerships in the areas of climate resilience, adaptation, sustainability, and policy-oriented research. The visit strengthened institutional engagement and identified promising avenues for future collaboration to advance climate adaptation and resilience initiatives.

Meeting with Director of the Mahatma Gandhi Institute for Combating Climate Change

12 February 2026, Delhi

A productive meeting was held with Mrs. Roopavtar Kaur, Director, MGICCC, Government of NCT of Delhi, to explore opportunities for collaboration with ICARS-IITR. The discussions focused on planning joint training and capacity-building programmes, undertaking collaborative activities in the areas of climate change adaptation, resilience, and sustainability, and establishing a formal partnership through a Memorandum of Understanding (MoU) between the two institutions. The meeting reflected a shared vision to strengthen knowledge exchange, research, and capacity development for advancing climate action.





Collaborative visit of officials from NITI Aayog

20 February 2026, ICARS-IITR

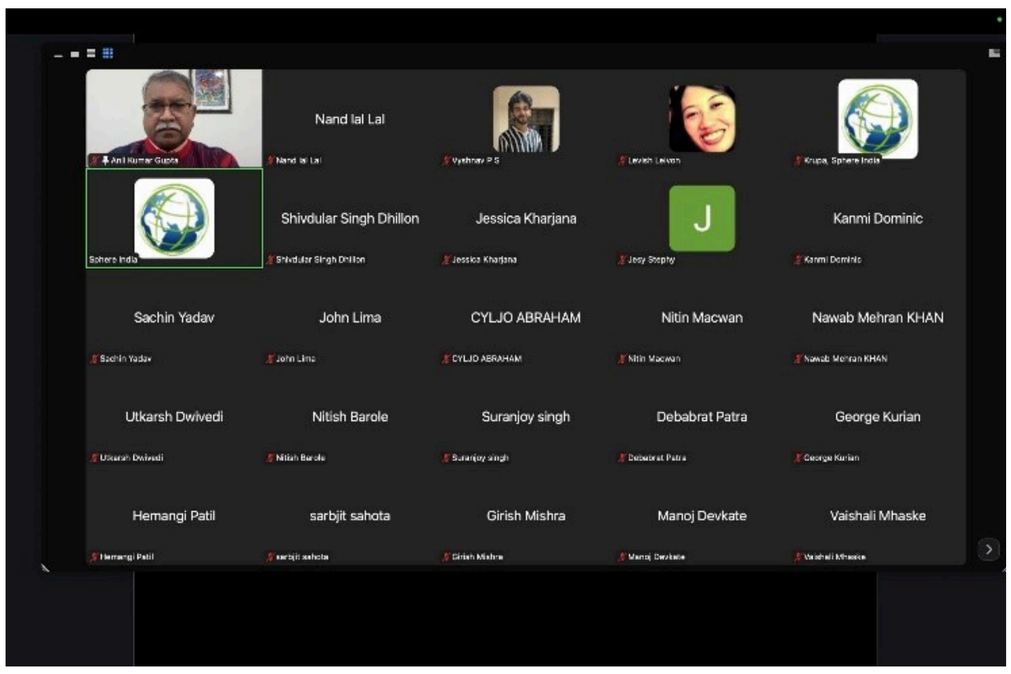
Officials from NITI Aayog, including Dr. Mohammad Rafiq (Policy Consultant), Dr. Ananya S. Rao (Lead, Climate Adaptation), and Ms. Swati Saini (Consultant) visited ICARS-IITR for collaborative discussion with Prof. Anil Kumar Gupta and the research team. The interaction focused on strengthening the linkage between research, innovation, and policy to support impactful and sustainable development initiatives. The visit fostered meaningful dialogue on enhancing research-policy integration and identified opportunities for future collaboration in climate adaptation and sustainable development.

Participation at International & National Forum

National IAG Consultation on Climate-Induced Disasters: Lessons from 2025

15 January 2026, Virtual

ICARS-IITR participated in the National IAG Consultation on Climate-Induced Disasters: Lessons from 2025, organised by Sphere India and partners. During the keynote address, Prof. Anil Kumar Gupta, PI-ICARS highlighted the evolving landscape of climate-induced risks, emphasising the growing socio-economic and systemic vulnerabilities that contribute to increased loss and damage, while also underscoring the role of ICARS in developing the Annual Disaster Risk, Resilience and Recovery (DRRR) Report through collaborative engagement with key stakeholders. The consultation strengthened multi-stakeholder collaboration and reinforced the importance of evidence-based approaches for assessing climate-induced disaster risks and informing resilience and recovery planning.





Workshop on Disaster Risk Reduction & Mitigation at IIT Roorkee

16 January 2026, IIT Roorkee

The Department of Earth Sciences, IIT Roorkee organized a Workshop on Disaster Risk Reduction and Mitigation at the Roorkee campus. The workshop was inaugurated by Hon'ble Chief Minister of Uttarakhand Shri Pushkar Singh Dhami and presided over by Prof. K.K. Pant, IIT Roorkee. Prof. Anil Kumar Gupta, PI-ICARS and Professor-WRDM (DRR Policy & Strategies), delivered the plenary talk on "Science-Research-Policy-Practice Interface based Excellence in DRR: Envisioning India's Global Leadership". The event was attended by policy makers, faculty, students, and other stakeholders, encouraging dialogue on disaster resilience and risk mitigation.

Two-day Harit Summit at Shiv Nadar University, Greater Noida, Uttar Pradesh

02-03 February 2026 , Greater Noida

Drawing on field-based experiences from wetland rejuvenation initiatives across diverse geographies in India, GEAG and HCL Foundation jointly organised a Roundtable on "Policy Dialogue: Wetlands Conservation for Climate Resilience" during the two-day Harit Summit. Representing ICARS-IITR, Prof. Anil Kumar Gupta moderated a panel discussion on "Mainstreaming Wetlands for a Changing Climate: Policy Pathways and Imperatives." The dialogue enabled collective reflection on policy, institutional, and programme-level convergence, with the aim of generating actionable recommendations to strengthen wetland-based climate resilience. The panel featured senior-level officers and representatives from organisations including GIZ, UNICEF, CEPT, and Shiv Nadar University.



RESSUMMIT 2026





Background

The Resilience and Sustainability Summit - Vision 2047 (RESSUMMIT - 2026 Edition) was a premier multi-day platform designed to advance dialogue and action at the intersection of resilience, disaster risk reduction, sustainability and public policy, in line with India's Vision 2047. Organized by the Integrated Centre for Adaptation, Disaster Risk Resilience and Sustainability (ICARS - the unique and networking CoE of Government of India's Department of Science & Technology jointly with IIT Roorkee at Greater Noida Campus) between 16 -18 March 2026, co-organized by NDMA, NITI Aayog, UNDP, GIZ, UNDRR, UNU-CRIS, HCL Foundation, WWF, CSTEP and other partners. The RESSUMMIT - 2026 Edition has been attended by over 350 delegates from more than 70 organizations. Central theme of the RESSUMMIT 2026 was "advancing resilience through an integrated policy and practice interface". It served as a global platform bringing together researchers, scientists, policymakers, practitioners, disaster responders, and industry leaders to address emerging and connected risks in the context of accelerating climate change and environmental degradation, hampering India's development trajectory. The Summit created space to ask: how do we build a resilient, developed nation without leaving its most vulnerable people and communities behind?

Vision & Purpose

Capacities and Public Policy (CAPP-RES Edition 2026)

CAPP-RES is envisioned as a platform to bridge scientific knowledge, policy frameworks, and on-ground implementation, supporting India’s transition toward a resilient and sustainable future under the India's Vision 2047 agenda. In the context of accelerating climate change, disaster risks, industrial transitions, and resource constraints, the Summit advances systems-based thinking, integrated risk governance, and proactive capacity development to address both long-term vulnerabilities and immediate emergencies, while promoting alignment across sectors and stakeholders. It stresses the importance of enhancing the science-policy-practice interface, adopting systems thinking, and capacity building for informed and resilient development.

RESSUMMIT at a Glance

RESSUMMIT 2026 featured a dynamic programme comprising 4 Plenary Sessions, 1 Top Dialogue, 1 Summit talk, 24 Thematic Sessions, 6 Parisamvaad/Colloquy Sessions, and a High-Level Leader’s Talk (Fireside), along with Inaugural and Way Forward Sessions conducted across all three days. These sessions explored critical issues and emerging trends in resilience, disaster risk reduction, sustainability, climate adaptation, and public policy. The Summit also hosted an interactive exhibition showcasing innovative technologies, best practices, and field initiatives by the National Disaster Response Force (NDRF), State Disaster Response Force (SDRF), and partner organizations, providing participants with valuable insights into practical approaches for strengthening resilience.





















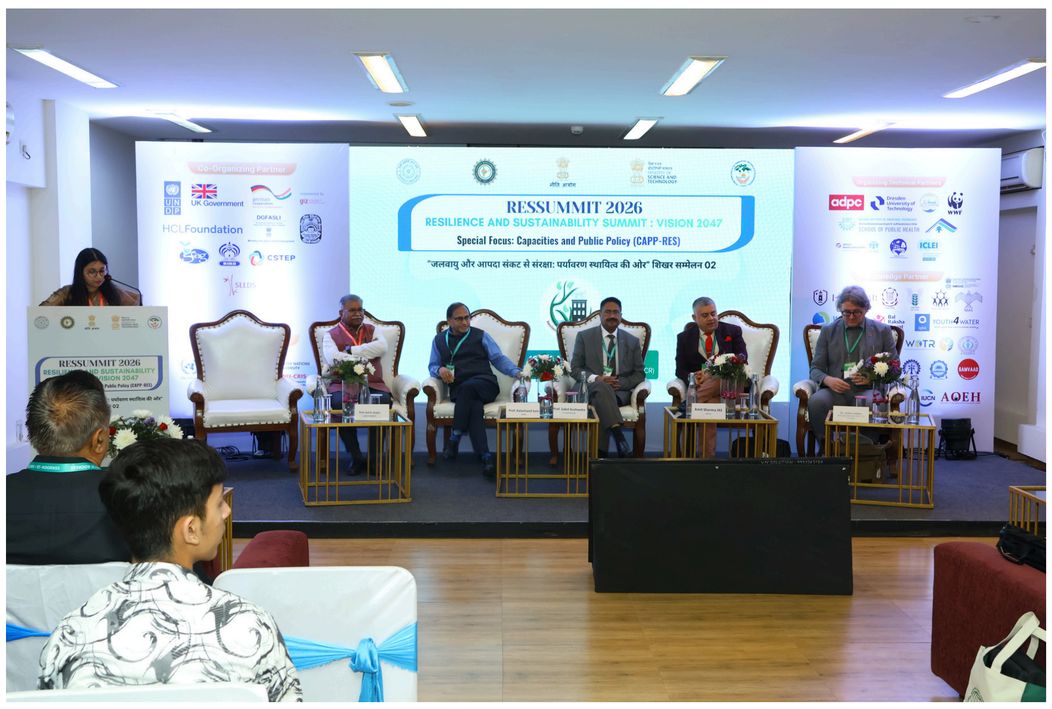
Day 1 at a Glance

The opening day of RESSUMMIT 2026 was anchored in India's national adaptation priorities, drawing upon the India's Strategic Knowledge Framework on Climate Change and the First National Adaptation Conclave. Through high-level dialogues, thematic sessions, and interactive discussions, participants explored integrated approaches to advancing adaptation, resilience, and sustainability while strengthening the science-policy-practice interface.

The day featured insightful deliberations on climate governance, innovative financing, nature-based solutions, state capacity building, early warning systems, anticipatory action, and strategic knowledge networks. Experts emphasized the importance of evidence-based policymaking, community participation, technological innovation, and cross-sector partnerships to address emerging climate risks. The launch of the India's Strategic Knowledge Framework on Climate Change - ADRES (Adaptation, Resilience and Sustainability) Network and First Adaptation Academy further emphasized the importance of strengthening climate resilience and DRR through integrated research, data-driven approaches, and collaborative institutional platforms. Experts highlighted the need to bridge the gap between fragmented research and policy by synthesizing knowledge into actionable insights through collaborative strategic knowledge-sharing platforms, supported by standardized data-sharing frameworks, GIS-based tools, and user-friendly information systems.









Day 2 at a Glance

The second day of RESSUMMIT 2026 focused on regional vulnerabilities, resilient health systems, and context-specific adaptation strategies to strengthen India's climate resilience agenda. Deliberations across plenary sessions and thematic discussions underscored the need to integrate climate risk assessments into urban planning, public health, land rehabilitation, and water governance while promoting locally led adaptation and evidence-based decision-making.

Key recommendations emphasized strengthening climate modelling capabilities, enhancing multi-sectoral coordination, adopting AI and digital technologies for disaster risk reduction, and promoting innovative approaches to address loss and damage. Experts also advocated for youth engagement, mental health integration, sustainable water policies, and collaborative partnerships among governments, academia, communities, and the private sector to build resilient and adaptive systems for Vision 2047.











Day 3 at a Glance

The final day of RESSummit 2026 highlighted the critical role of industry, technology, and safety systems in advancing climate resilience and sustainable development. Discussions explored industrial risk governance, chemical safety, people-centred early warning systems, climate-resilient industries, agricultural adaptation, and integrated approaches to disaster risk reduction, reinforcing the importance of aligning industrial growth with resilience objectives.

The sessions recommended strengthening techno-legal frameworks, mainstreaming climate adaptation into industrial planning, expanding low-cost and community-centric early warning systems, and developing standardized indicators for measuring adaptation outcomes. Experts further emphasized cross-sector collaboration, adoption of innovative technologies, and mapping resilience co-benefits across sectors to accelerate India's transition towards a safer, more sustainable, and climate-resilient future under Vision 2047.





Publications

Book Chapters

1. Bahinipati, C. S., Khadar Basha, S., Moharana, B., & Gupta, A. K. (2026). Understanding Loss & Damage from Climatic Extreme Events in India. In Water Security and Climate Change: Adaptation for Sustainable and Resilient Development (pp. 311-326). Cham: Springer Nature Switzerland.
2. Saini, J., Shrivastava, A., Gupta, A. K., Dhupper, R., Dey, B., & Jain, H. (2026). Evaluation of Morphometric and Hypsometric Properties of Bhagirathi River Basin for Efficient Watershed Management Utilizing Geospatial Methods. In International Conference on Trends and Recent Advances in Civil Engineering (pp. 701-719). Singapore: Springer Nature Singapore.

Technical Reports

1. Gupta, A.K., Srivastava, R., Nair, S.S., Chauhan, Sonali (2025). Capacity Needs and Gaps Analysis, Training Needs Analysis and Competency Framework: Climate Change Adaptation and Disaster Risk Reduction. Integrated Centre for Adaptation, Disaster risk Resilience and Sustainability (ICARS) - Indian Institute of Technology Roorkee, Greater Noida Campus, Page 52.
2. Gupta, A.K., Acharya, P., Mahajan, V., Tyagi, N., Dwivedi, U. and Mohan, M. (2025). India Adaptation Dossier - 2024. Integrated Centre for Adaptation, Disaster Risk Resilience and Sustainability-Indian Institute of Technology Roorkee, Greater Noida, Pages 100.
3. Gupta, A. K., Amin, F., Vishnu, P., Tyagi, N., & Mohan, M. (2025). Disaster Risk, Resilience and Recovery Report - 2024. Integrated Centre for Adaptation, Disaster Risk Resilience and Sustainability-Indian Institute of Technology Roorkee, Greater Noida, Pages 83.
4. Gupta A.K., Chope, S., and Acharya, P. (2025). Urban Infrastructure Resilience: A Case Study of Gurugram City Water Systems. Integrated Centre for Adaptation, Disaster Risk Resilience and Sustainability-Indian Institute of Technology Roorkee, Greater Noida, Pages 41.



Quarterly Feature

Wetlands for a Resilient and Sustainable Future

Every year on 2nd February, the world celebrates “World Wetlands Day” to recognize the invaluable role of wetlands in supporting biodiversity, water security, climate resilience, and sustainable livelihoods. This year’s theme “Wetlands and traditional knowledge: Celebrating cultural heritage”, recognizing the deep connection between communities and wetland ecosystems. Across generations, indigenous peoples and local communities have developed valuable knowledge and practices for conserving wetlands, managing water resources, sustaining biodiversity, and adapting to environmental change. These traditional systems continue to offer practical, nature-based solutions that complement modern scientific approaches to climate adaptation and disaster risk reduction.

For India, where climate-induced hazards such as floods, droughts, and heat stress are becoming more frequent, wetlands represent a critical component of adaptation planning and resilience building. Integrating wetland conservation into development policies and urban planning can significantly enhance ecosystem services while safeguarding communities and livelihoods. Nature-based Solutions (NbS) centred around wetlands offer cost-effective and sustainable alternatives for addressing climate challenges, contributing directly to national priorities under climate adaptation and sustainable development. Community-led conservation practices, seasonal water management techniques, and indigenous stewardship have demonstrated their effectiveness in maintaining ecological balance and enhancing resilience in vulnerable landscapes.

Recognizing this importance, ICARS-IITR, Greater Noida Campus continues to promote ecosystem-based approaches through research, policy engagement, and multi-stakeholder collaboration. As India advances towards Vision 2047, investing in wetland restoration and integrating NbS into planning frameworks will be instrumental in building climate-resilient infrastructure, enhancing water security, protecting biodiversity, and ensuring sustainable development for future generations.





Integrated Centre for Adaptation, Disaster Risk Resilience and Sustainability (ICARS) is the recent establishment of Department of Science and Technology (DST), Govt. of India jointly with IIT Roorkee at Greater Noida campus, with strategic and knowledge integration mandates. The centre aims to promote “Capacities and Public-Policy for Resilience and Sustainability (CAPP-RES) in Multi-Hazard Environment” through policy-linked research, action research and knowledge integration under the broad mandates of the National Mission on Strategic Knowledge for Climate Change (NMSKCC), facilitated through Department of Water Resources Development and Management, IIT Roorkee. This is an unique institution established on integrated and holistic coverage of DRR and Adaptation. ICARS promotes professional advances, leadership, and supports policy-planning, capacity building and localization of resilience agenda. ICARS is a National Anchoring Institute of MoEFCC for National Adaptation Plan for Disaster Management and Resilient Infrastructure. ICARS is designated as a India Focal Point for Hindu Kush Himalaya DRR Knowledge Hub, and also a selected professional member of UNDRR's Santiago Network for L&D through ADN.

