



सत्यमेव जयते
Ministry of Housing and Urban Affairs
Government of India



National Institute of Urban Affairs



Sanitation Capacity
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and Development



PARVAT-MANTHAN
Manifestation of Clean and Sustainable Hill States

Proceedings of **DIALOGUE ON** **CLEAN AND SUSTAINABLE** **HILL STATES**

NEW DELHI
19TH JUNE, 2023





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Member States



Department of Urban
Development and Housing,
Arunachal Pradesh



Government of Meghalaya



Government of Assam



Government of Mizoram



Urban Development
Department, Himachal
Pradesh



Government of Sikkim



Government of Jammu and
Kashmir



Government of Nagaland



The Administration of Union
Territory of Ladakh



Government of Uttarakhand



Manipur Urban Development
Agency



Government of Tripura

Agenda

Time	Session Outline	Speakers
09.30 - 10.00	Registration	
10.00 - 11.10	Welcome Remarks	Shri. Hitesh Vaidya, Director, National Institute of Urban Affairs (NIUA)
	Setting the Context for the Forum	Dr. Mahreen Matto, Team Lead, NIUA
	Voice from the Hills	Shri. Deepak Sanan, Former IAS
	Urbanization in Mountains - Trends and Impacts	Shri. Keshav Verma, Former IAS, Chairperson - High Level Committee (HLC) on Urban Planning, Ministry of Housing and Urban Affairs (MoHUA)
		Shri. Sushil Ramola, Immediate Past President, Integrated Mountain Initiative (IMI)
	Stories from the Global North - Approach to Sustainable Mountain Urbanisation	Smt. Divya Sharma, Deputy Head of Cooperation, Swiss Agency for Development and Cooperation (SDC)
Intergovernmental Negotiation and Consensus Building	Dr. Pema Gyamtsho, Director General, International Centre for Integrated Mountain Development (ICIMOD)	
11.10 - 11.30	Chief Guest and Keynote Address	Smt. Roopa Mishra, IAS, Joint Secretary, Ministry of Housing and Urban Affairs (MoHUA)
		Shri. G. Asok Kumar, IAS, Director General, National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti
11.30 - 11.45	Release of Rapid Assessment of Water and Sanitation in Hill States and a Short Film	
11.45 - 12.00	Tea Break	
Time	Session Outline	
12.00 - 13.30	Session 1: Value Proposition of the Forum	
	Moderator: Shri. Deepak Sanan, Former IAS	
	Objective: To assess the concept of a forum for the hill states	
	Panelists	
	<ul style="list-style-type: none"> ▪ Dr. Pema Gyamtsho, Director General, ICIMOD ▪ Shri. M.T. Sherpa, IAS, Secretary, Urban Development Department, Sikkim ▪ Smt. Kezochole, Joint Director and Nodal Officer SBM U 2.0, Urban Development Department, Nagaland ▪ Shri. Sanjeev Khirwar, IAS, Principal Secretary, Housing & Urban Development Department, UT Ladakh ▪ Dr. Victor Shinde, Head, Climate Centre for Cities (C-Cube), NIUA ▪ Shri. Ramesh Negi, Former IAS, Councillor, Integrated Mountain Initiative (IMI) ▪ Shri. Tikender Panwar, Former Deputy Mayor, Shimla Municipal Corporation ▪ Shri. Manu Bhatnagar, Principal Director, Natural Heritage, Division of INTACH 	
	Q&A	

13.30 – 14.15	Lunch Break	
Time	Session Outline	
14.15 – 15.45	<p>Session 2: Complexity of Sustainable Urbanisation: Systems Approach and Holistic Planning</p> <p>Moderator: Shri. Rajiv Ranjan Mishra, Former IAS, Former Director General, National Mission for Clean Ganga; Chief Advisor, NIUA</p> <p>Objective: To discuss and understand the most pertinent points for sustainable urbanization</p> <p>Panelists</p> <ul style="list-style-type: none"> ▪ Shri. Rohit Kakkar, Deputy Advisor (PHE), Central Public Health and Environmental Engineering Organisation (CPHEEO) ▪ Dr. Umamaheshwaran Rajasekar, Director, Technical Assistance and Capacity Development, Coalition for Disaster Resilient Infrastructure (CDRI) ▪ Smt. Vanthangpuii, Deputy Director, Urban Development & Poverty Alleviation Department, Mizoram ▪ Shri. Sameer Rai, Joint Chief Architect, Mission Director - SBM (U) & Nodal Officer - AMRUT 2.0, Urban Development Department, Sikkim ▪ Prof. Saswat Bandyopadhyay, Project Director, Centre of Urban Planning and Policy (CUPP), CEPT University ▪ Smt. Yeshika Malik, Climate Change Specialist, World Bank ▪ Prof. Gaurav Raheja, Professor & Head (Architecture & Planning), IIT Roorkee <p>Q&A</p>	
15.45 – 16.00	Reflection Session and Way Forward	Dr. Mahreen Matto, Team Lead, NIUA
16.00 – 16.15	Vote of Thanks	Dr. Victor Shinde, Head, Climate Centre for Cities (C-Cube), NIUA
16.15 onwards	High Tea and Networking	

Acknowledgment

National Institute of Urban Affairs (NIUA) duly acknowledges the support provided by Ministry of Housing and Urban Affairs (MoHUA) and Bill and Melinda Gates Foundation (BMGF) in the endeavour on Water, Sanitation and Climate Change Nexus for Clean and Sustainable Hill States.

We extend our gratitude to the Bremen Overseas Research and Development Association (BORDA) - South Asia, Federal Ministry for Economic Cooperation & Development, Germany for the support provided to conduct the Dialogue on Clean and Sustainable Hill states in New Delhi on 19th June 2023, under the umbrella of the forum- Parvat Manthan.

Furthermore, we are grateful to especially, Smt. Roopa Mishra, Joint Secretary, Swachh Bharat Mission, Ministry of Housing and Urban Affairs; Sh. G. Asok Kumar, IAS, Director General, National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti; Sh. Shri Deepak Sanan, Former IAS; Sh. Tikender Panwar, Ex-Deputy Mayor, Shimla, Himachal Pradesh; Dr. Uday Bhonde, Water & Environment Vertical, NIUA; Dr. Victor Shinde, Water & Environment Vertical, NIUA; Dr. Umamaheshwaran Rajasekar, Director, Technical Assistance and Capacity Development, Coalition for Disaster Resilient Infrastructure (CDRI); and all the eminent delegates from the Urban Development Departments of 10 States and 2 Union Territories; all the panelists and speakers; and the participants who generously shared their knowledge, experiences, and perspectives during the dialogue. Your valuable inputs has enriched the discussions and provided real-world insights that will contribute to meaningful change in the field of Water and Sanitation in the Hill States.

The deliberations and overall event was led by Sh. Hitesh Vaidya, Director, NIUA; Dr. Mahreen Matto, Team Lead, SCBP, NIUA; and Mr. Snehit Prakash, Director-Program, BORDA - South Asia.

The collaterals were designed and prepared under the guidance of Mr. Deep Pahwa, Creative Lead, NIUA and his team.

Background

The Himalayas, world's youngest mountain ranges, are facing significant challenges due to rapid urbanization and its impact on water resources, biodiversity, and the vulnerability of mountain communities. A growing economy like India, development and urbanization in the Himalayan region is inevitable, but it can be steered in a more sustainable manner. Thus, it is imperative that urban centers located in these areas learn from each other, and adopt planning practices that are inclusive and resilient with the ability to mitigate and adapt to the climate crisis.

Against this backdrop, the National Institute of Urban Affairs (NIUA) in collaboration with the Bremen Overseas Research and Development (BORDA) South Asia, has conceptualized a forum for Manifestation of Clean and Sustainable Hill States- Parvat Manthan. The inception of the forum is timely when UN-SDG recognizes this decade as the 'Decade for Action' to achieve Sustainable Development Goals and an explicit reference to "Human rights to a clean, healthy, and sustainable environment has been included in COP27 in 2022"

Over the past year, the forum has organised a series of impactful events, including consultation meetings, webinars, meetings with sector experts, NGOs, think tanks and the state urban development departments. These gatherings have addressed crucial topics such as initiating conversation between key state officials of Himalayan and North-East states; discussions around water and sanitation practices in the hill cities; climate change adaptation strategies for water and sanitation; legacy waste management; and sustainable wastewater management practices.

The dialogue on Parvat-Manthan held in New Delhi on 19th June, 2023 aimed to bring together the voices of the states and cities in the Indian Himalayan region, fostering multi-disciplinary research, knowledge sharing, and capacity building for inclusive and resilient planning practices. The delegates from various ministries and Urban Development Departments from 12 Himalayan States & UTs, including Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Sikkim, and the North East Seven Sisters participated. The key challenges and solutions related to WASH (water, sanitation, and hygiene) climate change, planning, carrying capacity to ensure sustainable development in these breath-taking states were discussed. This dialogue provided a unique opportunity for sector experts, think tanks, and stakeholders to exchange ideas, experiences, and best practices.

Inaugural Session



Sh. Hitesh Vaidya
Director, NIUA



Dr. Mahreen Matto
Team Lead, SCBP, NIUA



Sh. Deepak Sanan
Former IAS

Welcome Remarks

► Sh. Hitesh Vaidya, showcased the remarkable contribution and practices of NIUA in the area of mainstreaming citywide sanitation in the State of Uttarakhand. The significance of climate resilience and NIUA's integration strategy, which aims to bring together various thematic areas for a holistic outcome, was emphasized. Recognizing the importance of understanding the specific problems of each city, contextual solutions need to be crucially devised. He also mentioned NIUA's City Climate Action Plan Agenda, prioritizing impactful measures, mission-driven actions, measurable implementations, and strengthening of multi-stakeholder platforms. Serving as the secretariat for the forum dedicated to clean and sustainable development in hill states, the institute will develop an actionable roadmap, concentrating on inclusive and resilient water and sanitation initiatives in the hills.

Setting the context for the forum

► Dr. Matto presented the major objectives of the forum, with an aim of achieving clean and sustainable hill states. She emphasized the significance of contextualizing urbanization in the context of inclusivity and resilience. During the conceptualization of the Forum, a number of consultation meetings were held with various stakeholders, to help to identify gaps and challenges related to water, sanitation, and climate change in the Indian Himalayan region. During the consultation meetings it was acknowledged that a uniform solution cannot be applied to all cities due to variations in problems and available resources. The lack of urban forums in cities was also highlighted as an issue. To address these challenges, the forum Parvat-Manthan will focus on key contour areas through collective response and effective collaboration, adopting an inclusive and resilience-oriented approach. The forum will follow a multi-sectoral approach involving various stakeholders, promotion of upstream innovations, convergence of national missions and philanthropic initiatives to align efforts for greater impact, etc.

Voice from the Hills

► Sh. Sanan highlighted that the mountainous regions in India are often marginalized and considered peripheral to the mainstream. Traditionally, the mainstream has always applied uniform policies across the country without considering the unique combination of terrain, climate, and society that gives the hill states their distinct identity. The magnitude of problems faced by these states is significantly high and requires prioritization. It is crucial for the mainstream to acknowledge the hill states, their specific needs, and the challenges they face, thereby collectively giving them attention.



Urbanization in Mountains- Trends and Impacts

► Sh. Verma highlighted several key issues in the hilly regions, including enormous problems such as river depletion, deforestation, traffic, and biodiversity loss. He also mentioned the challenges of urban densification as people move away from small towns, the difficulties in local economic development and employment opportunities, and the fragility and insensitivity of the local administration towards these problems. Insufficient capacity building, particularly in terms of planners, exacerbates these issues. Furthermore, the high influx of tourists for instance in Uttarakhand, concentrated in Nainital and Mussoorie, necessitates dispersion to other areas. Urgent actions are needed for traffic management and construction regulations, with Nainital being identified as a red zone for earthquakes, suggesting a prohibition on construction activities during the monsoon season. Mr. Verma emphasized the importance of modernizing rules and regulations, raising awareness, and addressing challenges related to governance and political support. He also stressed the necessity for regional planning in Uttarakhand and other hill states and emphasized the focus on sustainability, design, and aesthetics in urban planning.

► Sh. Ramola, represents a Civil Society Organization working in the Indian Himalayan Region. IMI focuses on four key themes: climate change, disasters, changing livelihoods, and mountain habitats. With a focus on holistic understanding of mountain challenges and the development of contextual solutions, IMI actively engages youth in their summits. The involvement of local bodies in the respective areas is considered crucial. Sh. Ramola highlighted that the Himalayan region, being the largest natural asset, faces both natural and man-made challenges. Climate change has had a rapid and significant impact on the Himalayas, with a recorded increase of 1.5%. The unplanned and amorphous growth of urban areas in the Himalayas are driven primarily by concentrated tourism activities in certain months. The Himalayas and hill states are more vulnerable to the impacts of climate change compared to other regions, posing a significant threat. There is a plea to protect the forests in the region, as they play a vital role in maintaining the sensitive ecosystem.



Sh. Keshav Verma

Former IAS, Chairperson - High Level Committee (HLC) on Urban Planning, Ministry of Housing and Urban Affairs (MoHUA)



Sh. Sushil Ramola

Immediate Past President, Integrated Mountain Initiative (IMI)



Smt. Divya Sharma
Deputy Head of Cooperation,
Swiss Agency for Development
and Cooperation (SDC)

Stories from the Global North: Approach to Sustainable Mountain Urbanization

► Smt. Sharma highlighted the Swiss Agency for Development and Cooperation (SDC)'s focus on climate change mitigation and resilience building, with a specific emphasis on Passive Technologies. Switzerland was presented as a case study, renowned for its status as the greenest country in the world, and safe, resilient, and sustainable planning was highlighted as a key principle. Risk assessment and land use planning are recognized as essential components of effective planning. In Switzerland, waste management was a significant area of focus, with 98% of waste being produced and 52% of it being recycled. Waste management interventions and recovery are deemed important, with a call to prioritize waste reduction due to the potentially high costs associated with recycling waste. The concept of "no regrets solutions" or co-benefits is presented as a valuable approach, and sustainable wastewater treatment technologies are highlighted as essential for sustainable development. Capacity building is considered crucial for achieving sustainable development goals. The importance of passive technologies in addressing climate change and the significance of mitigation strategies was emphasized. Traditional knowledge and practices were acknowledged as valuable aspects of planning and development.





Intergovernmental Negotiation and Consensus Building

► Dr. Gyamtsho highlighted that the Indian Himalayan Region possesses the largest reserves of frozen water and various natural assets including spiritual heritage sites, rivers and trails, wildlife, agriculture and livestock, and renewable energy resources. The challenges with regard to lack of proper washroom facilities, landslides and floods, littering and waste disposal issues, contamination of water sources, and air pollution, faced at local, national and global levels encompass concrete concern. Recognizing the importance of the tourism sector in boosting economies in mountain regions, it becomes essential to prioritize sustainable solutions for tourism activities.



Dr. Pema Gyamtsho
 Director General, International
 Centre for Integrated Mountain
 Development (ICIMOD)

Role of Philanthropy in Coalition Building to Accelerate Impact (learnings from NFSSM Alliance)

► Smt. Sakshi Gudwani stated that time is running out, and the solution to complex problems lies in a multi stakeholder alliance. The NFSSM alliance has demonstrated the fruitfulness of bringing member states together to discuss common problems. Inclusivity plays a vital role in creating impact, and addressing the capacity challenge is crucial for tackling complicated issues. It is hoped that this platform can have a Sikkim-like example for every Switzerland, emphasizing on the importance of collaboration, a unified voice, and consensus-building. Resource mobilization and collective thinking are vital for effective implementation, recognizing that sanitation encompasses not just infrastructure but also the need to address service-level challenges, particularly for vulnerable communities.



Smt. Sakshi Gudwani
 Senior Program Officer, Bill
 and Melinda Gates Foundation
 (BMGF) - India

Keynote Address by Chief Guests



Smt. Roopa Mishra, IAS

Joint Secretary, Ministry of Housing and Urban Affairs (MoHUA)

Smt. Roopa Mishra emphasized the importance of prioritizing statewide development and promoting integration, taking into account all environmental aspects and interrelated problems. When states are the focus, integration of approaches becomes key, and bringing together existing knowledge is essential. The forum should envisage to forge partnerships, utilize public finance effectively, ensure coherence of objectives, establish a strong regulatory framework, and empower individuals to take responsibility. The government's intent is clear, with aspirational missions being rolled out and partners willing to come on board, showcasing a successful model of performance. Forums like these connect the dots, bringing think tanks and startups together and energizing the discussions. Operating at scale and planning correctly, utilizing case studies and the expertise of practitioners, is crucial. A strong regulatory background will amplify the message, and encourage individuals to take up responsibility through large-scale public mobilization as a powerful approach. With numerous successful cases, there is no reason why the forum cannot immediately take off at scale. Smt. Mishra expects the forum to identify 3-4 activities related to trekking, camping, and related activities in terms of sanitation and initiate conversations with partners right away.



Sh. G. Asok Kumar, IAS

*Director General, National Mission for Clean Ganga (NMCG)
Ministry of Jal Shakti*

Sh. G. Asok Kumar emphasized that to address the challenges faced by mountain regions, it is crucial to recognize them and prioritize their inclusion. Establish an economic forum to connect river communities and foster collaboration, while emphasizing the importance of people's participation in decision-making processes. It is essential to take action to address pressing issues, such as the impact of tourism on water bodies and plastic waste pollution. Highlight the vulnerability of fragile mountains, such as the sinking of Joshimath, and recognize the eco-sensitivity of Bhagirathi and the need for its preservation. Recommend decentralized sewage treatment plants as a solution for hilly areas, and prioritize data digitization for informed decision-making and planning. The aim is to keep the mountains clean to ensure clean rivers. Rapid urbanization and tourism influx have created numerous challenges for States like Uttarakhand, and sanitation management requires sustainability and public participation. The new Hilly Cities Forum is welcomed, akin to the River Cities Forum, and efforts are needed to establish a standardized database.





Publication Release

During the dialogue, 'State of Water and Sanitation in Hill states' was released in the presence of honorable chief guests Smt. Roopa Mishra, Joint Secretary, Ministry of Housing and Urban Affairs (MoHUA) and Sh. G Asok Kumar, Director General, National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti. The report provides comprehensive coverage of 10 states and 2 Union Territories in the north and north-eastern regions of India. It is intended to be a living document, regularly published every two years, to reflect the evolving situation and progress in water and sanitation in hilly regions. This publication will allow stakeholders to stay updated on the current state, track changes, and identify areas requiring further attention.

This document aims to address and develop inclusive, resilient, and sustainable urban ecosystems in the Indian Himalayan Region. It delves into various aspects such as geography, topography, climatic conditions, demography, administrative details, land use, access to water, sanitation, solid waste management, and municipal finances.

Key highlights from the report include a higher percentage of female workers in the states compared to the national average, challenges in wastewater treatment infrastructure, the importance of door-to-door waste collection, and disparities in municipal revenue and expenditure among the states and limited data availability regarding state profiles.

Overall, the report serves multiple purposes, including information dissemination, policy formulation, accountability, advocacy, and long-term planning. It is an essential resource for improving water and sanitation services, promoting sustainable development, and enhancing the well-being of communities in the hilly regions.

Panel Discussion 1



Sh. Deepak Sanan,
Former IAS

Value Proposition of the Forum (Moderator-Sh. Deepak Sanan, Former IAS)

Objective: To Assess the Concept of a Forum for the Hill States.

The need for collaboration extends beyond hill states; it requires the collective effort of everyone. The government's intent and willingness to address the challenges are evident, and it is now our duty to amplify the voices and support their initiatives. With strong institutional backup in place, we can work together towards finding sustainable solutions and making a positive impact.

► Sh. Gyamtsho emphasized that the forum must prioritize on collective action at local and national levels, fostering unity and collaboration. Recognizing that effective waste management starts at home, emphasizing on waste segregation. Efficient sewage water management is paramount for cleaner rivers and water resource preservation. Urgent improvements are needed for the construction of toilets and overall sanitation to address hygiene and public health issues. It is essential to establish and strengthen bonds between rural and urban populations in hill states, striving for inclusive development and ensuring that no one is left behind in the journey towards progress.



Sh. Pema Gyamtsho
Director General, ICIMOD



Sh. M.T. Sherpa, IAS
Secretary, Urban Development
Department, Sikkim

► Sh. Sherpa asserted the Himalayan regions are of immense significance, not only environmentally but also in terms of military and national security, making their sustainable preservation a top priority. These regions harbor delicate biodiversity that is susceptible to multiple threats, and they are affected by climate change like other areas. The rapid urbanization and high tourist influx impose significant strain on the carrying capacity of these regions. Planning in such challenging terrains may be daunting, but it is crucial to safeguard their long-term well-being and resilience.



Smt. Kezhochole

*Joint Director and Nodal Officer
SBM U 2.0, Urban Development
Department, Nagaland*

► Smt. Kezhochole stated that the government's resolute commitment and determination to drive change are evident. As responsible stakeholders, we must actively engage and collaborate with robust institutional support. The calculation of Detailed Project Reports (DPRs) present challenges due to the rugged terrain and its influence on high runoff rates. Hence, meticulous planning and precise execution are of utmost importance. To streamline project estimation, the forum should establish guiding standards to accurately assess the cost of DPRs in the Hill States.

► Sh. Panwar reiterated that achieving sustainability requires significant disruption, whether it is social, economic, or political. It is crucial to actively engage and acknowledge the issue and challenges at hand in order to address them effectively. One concerning aspect is the rapid increase in the per car unit (PCU) due to tourism, which places additional pressure on the resources and infrastructure of the region. Convergence of efforts and capacity building becomes paramount to tackle these complex issues. The 74th constitutional amendment highlighted the means to empower the local governance and enable them to drive positive change. The establishment of a permanent mountain urban school is proposed to promote education and awareness about sustainable practices. Additionally, reviewing the land use plan based on factors such as terrain and climate is necessary for sustainable development.



Sh. Tikender Panwar

*Former Deputy Mayor, Shimla
Municipal Corporation*

► Dr. Shinde emphasized that capacity building should be a key aspect of the forum, equipping cities with the necessary knowledge and skills to tackle the challenges they face. The forum should also emphasize strategic directions, providing guidance on areas that require focused attention and concerted efforts. By promoting a systematic understanding of problems and solutions, the forum should aim to address issues comprehensively and effectively. It highlights the importance of co-benefits, showcasing how sustainable practices can yield positive outcomes in multiple domains. Additionally, the forum cultivates an environment of collaboration, learning, and innovation, injecting enthusiasm into the efforts. Through its collective approach and valuable contributions, the forum empowers hill states to create cleaner and more sustainable environments for their communities.



Dr. Victor Shinde

*Head, Climate Centre for Cities
(C-Cube), NIUA*



Sh. Ramesh Negi, IAS
Councillor, Integrated Mountain Initiative (IMI)

► In his discourse, Sh. Negi shed light on several pressing issues affecting hill states. One of the key concerns he addressed was the challenge of water scarcity, highlighting the importance of sustainable water management in these regions. He also drew attention to the problem of landslides, emphasizing the need for effective measures to mitigate their occurrence and minimize the impact. He mentioned that waste management emerges as another significant issue, with a focus on developing efficient systems for waste disposal and recycling. He emphasized the need to understand the problems beyond the scenic beauty of the mountains, recognizing that sustainable development requires a comprehensive understanding of the challenges faced by these regions. Plastic pollution in the hills stands out as a major problem that demands urgent attention and effective solutions. Moreover, he highlighted the financial strain experienced by hill states and emphasized the importance of considering their economic constraints in developing sustainable strategies. Finally, he stressed the importance of understanding the carrying capacity of the mountains, recognizing the limits of natural resources and the need to ensure sustainable practices that align with the ecological balance.

► Sh. Khiwar emphasized that the influx of tourists significantly amplifies the strain on resources in the hills, including land, water, and food. This mounting pressure further intensifies the existing institutional capacity constraints in the region. Additionally, the unique topography of the area presents additional challenges for planning and resource management. The convergence of these factors emphasizes the necessity for thoughtful deliberation and strategic approaches to ensure sustainable development in the midst of increasing tourism-related pressures.



Sh. Sanjeev Khiwar, IAS
*Principal Secretary,
Housing & Urban Development
Department, UT Ladakh*

► Sh. Bhatnagar emphasized that currently, we are in a critical and escalating crisis, with no immediate solutions readily available. A two-year moratorium on construction in select regions of hill states should be implemented, allowing time to develop effective solutions. It is important to address the varied and non-uniform land policies that exist across different states. Attitudinal changes are necessary to foster a more sustainable approach in the Indian hill region. There is a concern that building bye laws are being applied indiscriminately, without considering their suitability for the specific terrain. Additionally, proper adherence to Road Side Acts is lacking. To address these challenges, a landscape ecology approach is advocated, prioritizing the various elements of the ecology that contribute to landscapes, including habitats, connecting corridors, and hydrology. By adopting this holistic perspective, we can work towards sustainable and harmonious development in the hill states.



Sh. Manu Bhatnagar
*Principal Director, Natural
Heritage, Division of INTACH*



Panel Discussion 2

Complexity of Sustainable Urbanisation: Systems Approach and Holistic Planning-(Moderator-Sh. Rajiv Ranjan Mishra, Former IAS)

Objective: To Discuss and understand the most pertinent points for Sustainable Mountain Urbanization and to Identify the role that the Forum could potentially play.

To effectively address the problems at hand, it is crucial to consider diverse solutions that can cater to the specific challenges faced. Emphasizing inclusivity and encouraging public participation will ensure that the perspectives and needs of all stakeholders are taken into account. Engaging more with academia and prioritizing capacity building will enhance knowledge and skills, enabling better decision-making and implementation of sustainable measures.



Sh. Rajiv Ranjan Mishra,
*Former IAS, Former Director General,
National Mission for Clean Ganga;
Chief Advisor, NIUA*



Prof. Gaurav Raheja
*Professor & Head (Architecture &
Planning), IIT Roorkee*

► Prof. Raheja emphasized to address the challenges faced by the hills, it is crucial to emphasize knowledge, innovations, and collective action. Instead of solely prioritizing urbanization, there should be a focus on humanizing the hills, ensuring the well-being and sustainable development of the local communities. The issue of sewage flowing into pristine water bodies is a pressing concern that needs immediate attention. The cracks in Joshimath, a vulnerable area, do not wait for political debates and require swift action. The lack of innovation and technology in addressing mountain challenges further exacerbates the situation. The construction of a two-hour corridor from Delhi to Dehradun, which involves concrete in the river bed, has the potential to lead to a disaster if not controlled and restrained. Achieving sustainability requires careful management and a focus on preserving the delicate balance of the ecosystem. Moreover, there is disagreement with the terminology of urbanization, as it may not be suitable for the context of the hills. Instead, there is a need for empathy and inclusivity in the decision-making process to ensure the well-being of all stakeholders in these regions. Education plays a vital role in this process, but it should be complemented by sensitization efforts that promote an understanding of the unique environmental and social aspects of these regions. By fostering a combination of knowledge, innovation, collective action, and a human-centric approach, we can work towards creating a harmonious and sustainable future for the hills.

► In his statement, Sh. Rohit Kakkar emphasized on the absence of the “hill context” in current discussions and decision-making processes. Understanding risk management through comprehensive information and data is crucial in effectively addressing challenges. Mainstreaming this information is essential to ensure its integration into planning and decision-making processes. Service delivery in hill regions must be sustainable, resilient, and inclusive, taking into account the needs of the local communities. Adopting a people-centric approach is vital for the successful development and management of these areas. However, there is a notable lack of urban planners involved in the development process, highlighting the need to incorporate their expertise for more informed and holistic planning.



Sh. Rohit Kakkar

Deputy Advisor (PHE), Central Public Health and Environmental Engineering Organisation (CPHEEO)



Smt. Yashika Malik

*Climate Change Specialist,
World Bank*

► Smt. Malik stated that to ensure effective planning, it is crucial to have reliable risk information based on a good dataset, a data-driven approach, and innovative tools. Adopting an open-source and interactive model, along with GIS mapping, is highly important. This information should be integrated into the planning process. Service delivery must prioritize climate and disaster resilience, while also being inclusive. Downscaling information to local levels is essential for effective implementation. Capacity building should be emphasized at various levels, with a people-centric approach. Implementing specific development models, such as a circular economy, can drive sustainable growth. Promoting learning, localization, and lateralization across the region will foster collaboration and knowledge sharing for mutual benefit.

► Prof. Bandyopadhyay stated that we lack adequate preparedness for planning in hilly areas, as our technical and urban planning guidelines are often insufficient in addressing the unique challenges of these regions. The quality of GIS-based master plans depends on the capacity of the consultants and the presence of a recipient body to take them forward. The allocation of only one planner for a large population, especially in hill states, is insufficient and unbalanced in managing and planning effectively. To move forward, we need an adequate number of planners and capacity building initiatives. The absence of a culture of area based planning hinders our progress, and we must strive to deconstruct and demystify complex adaptive systems through clear and practical guidelines. Instead of uniform guidelines, region-specific guidelines are necessary. Urbanization, despite its challenges, brings opportunities, and forums like these provide a platform for discussing problems and finding solutions. Climate-induced tourism has witnessed a significant increase, and it is crucial for various stakeholders and actors to take responsibility and avoid exploiting the landscape for their own gains.



Prof. Saswat Bandyopadhyay

*Project Director, Centre of Urban Planning and Policy (CUPP),
CEPT University*



Sh. Sameer Rai

*Joint Chief Architect, Mission
Director-SBM(U) & Nodal Officer -
AMRUT 2.0, Urban Development
Department, Sikkim*

► Sh. Rai proposed that while focusing on addressing the challenges of the urban system, it is important to recognize its complex nature involving the public and the economy. A paradigm shift is needed, where the public takes ownership and sustains the system. While guidelines are provided at national level, it is the states that should set parameters according to their specific requirements, promoting local engagement and alignment. Active participation is crucial, fostering a community-driven approach rather than a top-down approach. Re-engineering existing systems and involving academia and industry partners can enhance inclusivity. Stepping out of comfort zones, engaging with academia, and prioritizing social engineering over mechanical engineering are necessary for achieving our agendas and goals.

► Dr. Umamaheshwaran stated that in order to address the challenges and seize the opportunities, it is essential to deliberate upon the specific issues faced by hill states. The lack of city planners poses a significant challenge that needs to be overcome. Collaboration between temple authorities and hoteliers is crucial for managing tourism and its impact. One key concern is the absence of a defined carrying capacity for hill states, requiring a comprehensive assessment. Although there is a wealth of data available, there is a need for effective categorization and platforms for geospatial analysis. Adopting a network-based planning approach can enhance efficiency. Risk management plays a vital role, with insurance companies serving as monitoring agencies for public infrastructure. Implementing risk budgeting strategies is essential. Prioritizing infrastructure for resilience, rather than focusing solely on resilient infrastructure, is an important approach to ensure long-term sustainability.



Dr. Umamaheshwaran Rajasekar

*Director, Technical Assistance and
Capacity Development, Coalition for
Disaster Resilient
Infrastructure (CDRI)*

Reflection Session and Way Forward



Key takeaways:

- ▶ Mountains are at the margins of India and further margin to mainstream, application of uniform prescription for all is a problem
- ▶ Hill context missing in planning guidelines. Recruitment of more Urban Planners in Hill States to deal with the problem urbanisation and climate change
- ▶ All the stakeholders, public, private, and social need to get together as a collective or an alliance
- ▶ Voices from the ground to be heard - engage with youth and cooperates
- ▶ Clear prioritization of activities and actions to accelerate scale and impact

Moreover emphasis was also made on the Call for action for the support by different agencies:

- ▶ Ministry of Housing and Urban Affairs: Provide advisory support and allow convergence through activities of SBM 2.0 - Safaimitra Suraksha, Aspirational toilets etc.
- ▶ Member States - For active participation and resource allocation for conducting activities
- ▶ MFOs - Support in design, execution, and resourcing of programs for the forum
- ▶ NIUA - Housing the secretariat and providing execution support, driving the forum till the stabilisation period
- ▶ NITI AAYOG and Academia - Provide technical support for research and analysis
- ▶ Other NGOs and CSOs - Become part of advisory group, support execution

Advisory Group



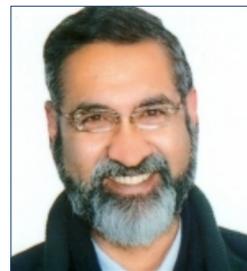
Shri. Hitesh Vaidya
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Chief Advisor NIUA



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Ex-Deputy Mayor, Shimla
Himachal Pradesh



Shri. Deepak Sanan
Former IAS



Shri. Stanzin Tsephel,
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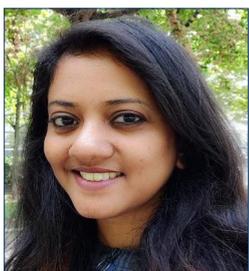
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ABOUT NIUA

National Institute of Urban Affairs (NIUA) is India's leading think tank on urban planning and development. NIUA's Sanitation Capacity Building Platform (SCBP) aims to address urban sanitation challenges in India, through capacity development of stakeholders in urban sanitation. This can facilitate improved delivery of sanitation services through implementation of citywide inclusive sanitation approach and adoption of non-sewered sanitation, including Faecal Sludge and Septage Management (FSSM). Through its experience and learnings over the past five years, SCBP has developed a normative framework for states on mainstreaming non-sewered sanitation. To deliver proof of concept of this framework, SCBP is working in Uttarakhand and providing capacity building, technical, and policy & advisory support on Integrated Wastewater and Septage Management (IWSM) at the state and ULB levels.



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