

## Enhancing Capacities of Government Line Departments and other Stakeholders to address Climate Change through Integrated Water Resources Management (IWRM) in Uttarakhand

### Background

Climate change has a strong influence on precipitation and melting response of glaciers/snow cover in the Himalayas. Uttarakhand being a hill state is quite vulnerable to climate mediated risks. Rising temperatures can also cause rapid glacial melt consequently impacting freshwater supply and quality. Uttarakhand Jal Sansthan which is responsible for rural drinking water supply schemes in the state is facing troubles due to the depleting trend of discharge of the water sources in the last decade.



This translates into concerns for the state to be ready at the policy level as well as the implementation level to manage the water management system and its supply in the times of crisis to come. Integrated Water Resource Management (IWRM) is the sustainable solution for the same.

With the above context, India Water Partnership (IWP) undertook a project on “**Enhancing Capacities of various Stakeholders to address Climate Change through Integrated Water Resources Management (IWRM) in State of Uttarakhand**” in 2021 with the objectives to sensitize and build capacities of officials of water resources and other relevant departments and institutions of Government of Uttarakhand to implement and mainstream adaptation actions into IWRM. The project started with collecting the information on the current scenario of the water management system in the state both from the documentation and also by interviewing the major stakeholders. Success stories were also documented. Further it has sensitized and build capacities of officials of water resources and other relevant departments and institutions to implement and mainstream adaptation actions into IWRM planning by organizing a State Level Sensitization Workshop. Conclusion of the project reflect the exact on-ground realities on status of IWRM in Uttarakhand State.

### State Level Sensitization Workshop

A state level sensitization workshops on “Enhancing Capacity to Address Climate Change in Integrated Water Resources Management (IWRM) in Uttarakhand” was organized by India Water Partnership (IWP) in collaboration with National Institute of Hydrology (NIH), Roorkee & Indian National Committee for Intergovernmental Hydrological Programme (INC-IHP) on 7th December, 2021 at NIH, Roorkee, Uttarakhand to build the capacity of key officials of the Nodal Departments of Uttarakhand State Government.

International Commission on Irrigation and Drainage (ICID), Uttarakhand State Council of Science and Technology (UCOST), NIH, Roorkee, Forest Department, Irrigation & Minor Irrigation Department, Horticulture Mission of Uttarakhand, Department of Rural Development, Watershed Development Department, Agriculture Department, Public Health Engineering Department, Uttarakhand Pollution Control Board, Swajal Sansthan, Uttarakhand State Disaster Management Authority, Irrigation Research Institute, Central Water Commission, Global Water Partnership and Israel Embassy, New Delhi marked their presence by being represented both in person and virtually. Executive Secretary-cum-Country Coordinator, IWP coordinated the workshop with the support of NIH, Roorkee.



The main objective of the workshop was to bring together all the stakeholders on one platform, especially the State Government officials of Uttarakhand particularly the departments like irrigation, watershed, water resources dealing with water management projects planning and implementation. The workshop was very successful as eminent experts in water & climate change and the bureaucrats of the State Government, and International experts initiated informed discussions on IWRM and came up with conclusive recommendations to mainstream IWRM.

# Workshop Highlights

- **Information Exchange** – Identification of gaps in information access and capacities among various stakeholders with reference to policy implementation, infrastructure and capacity of the key stakeholders.
- **Conclusive Recommendations for mainstreaming IWRM** – Discussions around the working of IWRM and the gaps that it would be able to fill in case it is being implemented by the government and non-government agencies were highlighted, resulting into conclusive recommendations for mainstreaming IWRM in Uttarakhand.
- **Best Practices** – Presented by subject matter experts and practitioners, the best practices would become the reference points for implementation of IWRM in the State.
- **Updated GWP IWRM Online Toolbox shared** – Newly updated GWP IWRM toolbox was shared with participants along with new features and utilities so that various stakeholders can use the tool for effective implementation of IWRM.

## Key Recommendations

- **State's approach to Water Resource Management** - This needs to pivot from an industrial development centric to an environmental and community centric development approach for ensuring sustainable development.
- **Capacity Building at local level** - Trainings of local line departments and local community stakeholders with respect to IWRM in Uttarakhand need to be organized.
- **Uttarakhand IWRM Online Portal** - A comprehensive State level Water Management IWRM online portal should be created for effective implementation of IWRM.
- **Information Repository** – A common and easily accessible information repository which can be used by all the stakeholders is recommended for easy access, collaboration and better coordination among the various stakeholders working towards IWRM.
- **Promotion of Case studies** – These should be used as a motivation tool through the eco-tourism/aqua-tourism so that the work is safeguarded for posterity as it would lead to encouragement of similar efforts in other locations in the State.
- **Urgent Springshed Management Plan** – This need to be done to prevent the decline of river systems in the State.

## Case Studies Documented

### Case Study highlighting the Forest Officer's Efforts to Rejuvenate the River Heval, Tehri Garhwal, Uttarakhand through River-landscape based Approach

This case study highlights the efforts of Indian Forest Officer, Mr. Dharm Singh Meena, I.F.S, DFO, Narendra Nagar Division, Tehri Garhwal to revive the Heval River which is a tributary to Ganga and has 167 villages located across it. The project used river-landscape based approach which was extremely successful as it not only rejuvenated the river but also revived springs, streams and the riverbed alongside creating employment opportunities for the locals.



### A Case Study of Assan River Rejuvenation by HESCO with the Community Participation

This case study documented under this project demonstrates that watershed management based approach was adopted to rejuvenate the Assan River. The interventions were aimed at increasing the water recharge of the surrounding areas around the River resulting in expansion of the green cover area. Eventually, the river discharge started rising and river flow also increased solving the problem of water scarcity in the region. The Assan River rejuvenation work was undertaken by HESCO, Dehradun with the community participation.

For more details, please go through the report on our website.



<https://cwp-india.org/>



iwp01



IWPIndia01



iwpneer@gmail.com



India Water Partnership (IWP), Secretariat- WAPCOS Ltd.,  
76-C, Sector-18, Institutional Area, Gurugram, 122015.