

## VISION FOR THE FUTURE (YEAR 2030)

- ⇒ Climate change impact assessment on hydrological variables
- ⇒ Spring inventorization and rejuvenation for the Western Himalayan Region
- ⇒ Monitoring and hydrological modelling of Himalayan Cryosphere
- ⇒ Water quality studies for ecological sustainability
- ⇒ Prioritization of catchments for soil conservation using RS & GIS
- ⇒ Technology transfer and mass awareness initiatives



## REGIONAL COORDINATION COMMITTEE

A Regional Coordination Committee (RCC) has been set up to monitor the technical work of WHRC, Jammu and to ensure coordination with concerned organizations in the region composed of the Director-NIH (Chairman), Coordinator-WHRC (Co-chairman), Head-WHRC (Member Secretary), and nominees of Central and State Govt. Institutions, Academic Institutions, NGOs and Individual Experts.

### Contact us at:

#### National Institute of Hydrology

Jal Vigyan Bhawan  
Roorkee - 247 667, Uttarakhand (India)  
Tel: +91-1332-272106  
Fax: +91-1332-272123  
Web: nihroorkee.gov.in

#### Western Himalayan Regional Centre

Flood Control Complex  
Opp. Military Hospital, Burma Gate  
Jammu Cantt. - 180 003, J&K (India)  
Tel: +91-191-2432619  
Fax: +91-191-2450117

Director - Dr. JV Tyagi  
Coordinator & Head - Dr. MK Goel  
Scientist-in-Charge - Dr. PG Jose



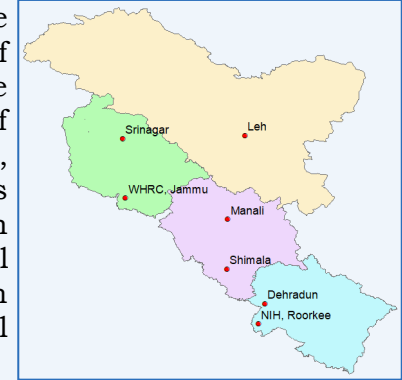
## National Institute of Hydrology

(An ISO 9001:2008 Certified Organisation)  
(An Autonomous Society under the Ministry of Jal Shakti, Govt. of India)

**Western Himalayan Regional Centre**  
Jammu-1800 03, J&K, India

### ABOUT WESTERN HIMALAYAN REGIONAL CENTRE

The Western Himalayan Regional Centre (WHRC) is one of the six Regional Centres of NIH and is operational at Jammu since January 1990. The area of jurisdiction of WHRC covers the Jammu & Kashmir, Ladakh, Himachal Pradesh and hill regions of Uttarakhand. The Centre has the main focus to carry out field-oriented hydrological studies through close interaction with various State/Union Territory and Central Government departments.



**PURPOSE:** To undertake, aid, promote and coordinate systematic and scientific work in all aspects of hydrology; and to cooperate and collaborate with other organizations in the field of hydrology.

### THRUST AREAS OF RESEARCH

- ⇒ Climate change impact analysis
- ⇒ Hydrology of lakes
- ⇒ Water quantity & quality
- ⇒ Flood and River basin modelling
- ⇒ Cryospheric studies
- ⇒ Soil erosion & sedimentation studies
- ⇒ Disaster risk reduction
- ⇒ Hydrological network improvement & instrumentation
- ⇒ Remote sensing application in hydrology
- ⇒ Spring inventory & spring sanctuary development



**WATER IS LIFE! SAVE WATER, SAVE LIFE!**

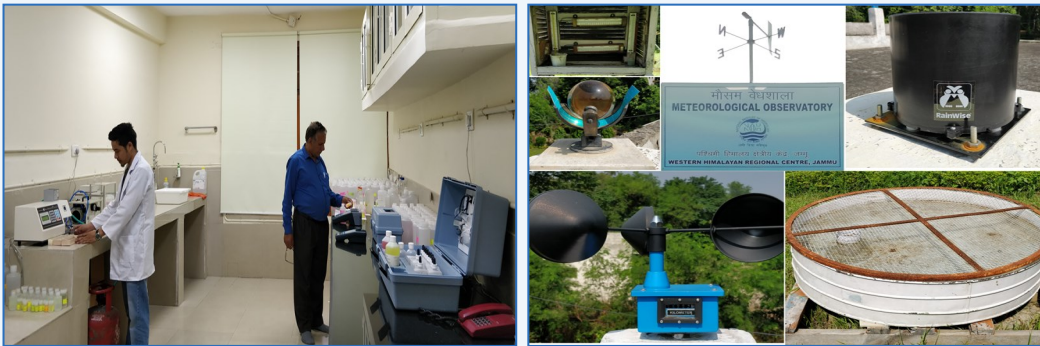
## INFRASTRUCTURE

### Laboratories

- ⇒ **Water Quality Lab:** Type-1 water purification system, UV Spectro photometer, Portable water quality kit, Flame photometer, Precision balance
- ⇒ **Soil Water Lab:** Pressure plate apparatus, Guelph permeameter, Infiltrometer
- ⇒ **Remote Sensing Lab:** ArcGIS 10.8, ERDAS Imagine 2020

### Observatory

- ⇒ Hydro-meteorological observatory
- ⇒ Glacier research station at South Pullu, Leh



## CONSULTANCY SERVICES

- ⇒ Assessment of water availability
- ⇒ Environmental Hydrology
- ⇒ Watershed management
- ⇒ Flood modelling
- ⇒ Flood plain zoning



### Recent studies

- Estimation of sediment yield and identification of areas vulnerable to soil erosion and deposition in a western Himalayan catchment
- Hydrological Investigation of Natural Water Springs of Baan Ganga watershed in Jammu & Kashmir State
- Integrated studies of Himalayan cryosphere using space based inputs
- Technical vetting of Tawi Riverfront Development Project

## ONGOING RESEARCH AND CONSULTANCY PROJECTS

- ⇒ Web GIS Based Spring Inventory For Vulnerability Assessment and Hydro-Geological Investigation of selected Springs for Sustaining Local water Demand In Ravi catchment of Himachal Pradesh
- ⇒ Web enabled inventory for natural water springs of Tawi River catchment of Jammu and Kashmir state of India for vulnerability analysis and developing adaptive measures for sustaining Tawi River
- ⇒ Hydrologic and hydraulic modelling for floodplain inundation mapping under future climate change scenarios: A case study of Tawi River, India
- ⇒ Statistical evaluation of global precipitation estimates over data scarce Western Himalayan Region of India
- ⇒ Estimation of changes in snow cover and glacier mass balance in a selected sub-basin of Western Himalayan Region

## TECHNOLOGY TRANSFER/CAPACITY BUILDING

- ⇒ Training course on “Geospatial Applications in Hydrology: Theory & Practice”
- ⇒ Training course on “Water Security: Best Practices for Conservation, Safety and Sustainability”
- ⇒ Training course on “Hydro-Meteorological Data Collection for Spring Mapping in Ravi River Catchment”
- ⇒ Science academies refresher course on “Hydrology of Floods”



**WATER IS LIFE! SAVE WATER, SAVE LIFE!**