



**National Conference  
on  
"Prospects and Challenges:  
Promoting Sustainable Farming Systems in Mountain Regions of Uttarakhand"**

**Organized by:**  
**Department of Rural Technology**  
**(School of Agriculture & Allied Science)**  
**Hemvati Nandan Bahuguna Garhwal University**  
**(A Central University) Srinagar Garhwal, Uttarakhand**

**Date: March 14-16, 2024**

**Venue: Swami Manmanthan Auditorium Hall, Chauras Campus,  
H.N.B. Garhwal University, Srinagar Garhwal Uttarakhand**



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**WEATHER, CLIMATE  
& SOCIETY JOURNAL**



# About the Conference

Department of Rural Technology (School of Agriculture & Allied Science), H.N.B. Garhwal University is organizing a “National Conference on Prospects and Challenges: Promoting Sustainable Farming Systems in Mountain Regions of Uttarakhand”, focusing on the unique challenges faced by Uttarakhand, a state in the Himalayan region of India.

Uttarakhand's geographical diversity, ranging from 28° 43' N to 31° 27' N longitude and 77° 34' East to 81° 02' E latitude, poses challenges for hill farming. With 0.8 million ha of cultivated area, constituting 16% of the total geographical area, the state relies heavily on rainfed agriculture, leading to frequent moisture stress on crops. The soil are low to medium in fertility, and key crops include rice, wheat, finger millet, and pulses.

Hill farming in Uttarakhand faces significant challenges such as soil erosion, land degradation, and the impacts of climate change. The region's steep slopes, fragile soils, and erratic rainfall patterns make it highly susceptible to soil erosion. Unsustainable farming practices, including excessive tillage and deforestation, worsen this issue, resulting in topsoil loss, reduced agricultural productivity, and increased sedimentation in rivers.

Climate change has further exacerbated these challenges such as, altering precipitation patterns, increasing temperatures, and shifting growing seasons. Adaptation strategies are crucial to mitigate the impact on crop yield, crop type, and the timing of agricultural activities. Intensive and unsustainable farming practices, such as monoculture cropping and the overuse of chemical fertilizers, contribute to soil fertility decline and overall land degradation, posing a serious threat to the sustainability of hill farming.

This conference aims to bring together experts, stakeholders, policymakers, and practitioners to address the interdependencies between agriculture and the social sector, emphasizing the need for sustainable farming practices in Mountain region. The proposed conference will also provide a platform to discuss these challenges, share innovative solutions, and foster collaboration among stakeholders. Emphasizing sustainable hill farming practices, the conference will explore interventions to enhance agricultural productivity while conserving the fragile ecosystem. This initiative align with the broader goal of promoting the well-being of the population by addressing the intertwined nature of agriculture and the social sector.

## Objective:

The primary objectives of the National Conference on Prospects and Challenges: Promoting Sustainable Farming Systems in Mountain Regions of Uttarakhand are as follows:

- **Addressing Challenges & Promoting Sustainable Agriculture:** Discuss and disseminate traditional knowledge and innovative agricultural technologies that contributes to sustainable and resilient agriculture.
- **Enhance Food Security:** Explore strategies to ensure food security through increased agricultural productivity and access to nutritious food.
- **Foster Collaboration:** Encourage collaboration between various stakeholders, including government agencies, NGOs, research institutions, and private sector entities, to address the interconnected challenges currently faced by agriculture and the social sector.



# Themes and Sub-themes

**The conference will be structured around the following key themes but not limited to these:**

## **Theme 1: Sustainable Agriculture**

- Indigenous Knowledge Systems
- Horticultural Crop Management
- Natural farming practices
- Agri-Transformation & SDGs

## **Theme 2: Environmental Challenges in Himalayan region**

- Agro-forestry and Biodiversity
- Natural Resource Management
- Emerging Issues in Environmental Management

## **Theme 3: Rural Technology & Rural Development**

- Technological Interventions
- Perceptions & Approaches towards new technologies
- Gaps in Agricultural & Allied Technology

## **Theme 4: Climate Change Impact & Adaptation**

- Climate-Resilient Agriculture
- Extreme Weather Events & Disaster Resilience
- Himalayan Glacial Dynamics & Water Resources
- Renewable Energy Solutions for Green Economy & Inclusive Growth

## **Proposed Structure and Activities:**

The conference will span three days and will include the following activities:

•**Inaugural Session:** The Convener will provide an overview of the workshop's objectives and themes.

•**Plenary Session:** Leading experts in each theme will present their research findings and insights.

•**Panel Discussion:** Interactive discussions with experts, policymakers, and practitioners to analyse challenges and potential solutions.

•**Technical Sessions:** Concurrent sessions under each sub-theme for in-depth discussions and knowledge sharing by

## **Theme 5: Social Sector Interventions**

- Public-Private Partnerships in Agriculture
- Government Initiatives and Policy Support
- Role of NGOs in Community Development
- Women Empowerment & Gender Sensitization

## **Theme 6: Transforming Food Security through Value Addition**

- Scope of Food Processing and value addition
- Food Processing Start-ups
- Youth Participation in Agri-business activities

## **Theme 7: Agri-nutraceutical farming**

- MAPs for fostering Livelihood
- Herbal Garden for Health & Wealth
- Naturopathy for a holistic approach to wellness
- Indigenous Knowledge System of Ethno-medicinal plants

## **Conference Vision towards attaining SDGs**



# Organising Committee

## Chief Patron

**Prof. Annpurna Nautiyal**

Hon'ble Vice Chancellor

HNB Garhwal University, Srinagar Garhwal

## Convener

**Prof. Rajendra Singh Negi**

Head

Department of Rural Technology

## Patron

**Prof. A. K. Negi**

Dean

School of Agriculture & Allied Science

## Co-Convener

**Dr. Santosh Singh**

Guest Faculty

Department of Rural Technology

**Dr. Shashidhar K. Jha**

Manager

WRI, India

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**Prof. S. S. Rawat**, Ex-Head, Department of Horticulture, HNBGU, Uttarakhand

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**Prof. R. P. Singh**, Department of Plant Pathology, GBPUAT, Uttarakhand

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**Prof. R C Ramola**, Department of Physics, SRT Campus, HNBGU

**Prof. O. P. Gusain**, Head, Department of Zoology, HNBGU

**Prof. J. S. Chauhan**, Head, Department of Seed Science & Technology, HNBGU

**Prof. R. C. Sundriyal**, Head, Department of Forestry & Natural Resources, HNBGU

**Prof. D. S. Chauhan**, Department of Forestry & Natural Resources, HNBGU

**Prof. Munesh Kumar**, Department of Forestry & Natural Resources, HNBGU

**Dr. V. K. Purohit**, Director, HAPPRC, HNBGU

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**Dr. J. S. Butola**, Assistant Professor, Department of Forestry & Natural Resources, HNBGU

**Dr. K. N. Shah**, Assistant Professor, Department of Horticulture, HNBGU

**Dr. M. K. Parmar**, Assistant Professor, Govt. Degree College, Jaiharikhal

**Dr. Rekha Dhanai**, Head, Department of Agriculture, Tula Institute, Dehradun

**Dr. Anupam Kumar Tiwari**, Head, Department of Rural Technology, CVRU, Chhattisgarh

**Dr. Mahendra Kunwar**, Secretary, HARC, Dehradun

**Mr. Navprabhat Singh**, Executive Director, MVDA, Uttarakhand

## Co-organising Committee

**Dr. B. P Chamola**, Assistant Professor, Department of Forestry & Natural Resources, HNBGU

**Dr. Deepti Prabha**, Department of Seed Science & Technology, HNBGU

**Dr. Babita Patni**, Assistant Professor, HAPPRC, HNBGU

**Dr. T. S. Bisht**, Assistant Professor, Department of Horticulture, HNBGU

**Dr. Himsikha Gusain**, Assistant Professor, Department of Forestry & Natural Resources, HNBGU

**Dr. Vijay Laxmi**, Assistant Professor, HAPPRC, HNBGU

**Dr. L. S. Kandari**, Assistant Professor, Department of Forestry & Natural Resources, HNBGU

**Dr. Vivek Singh**, Guest Faculty, Department of Horticulture, HNBGU

## Technical Programme Committee

**Dr. Pritam Singh Negi**, Assistant Professor, Department of Computer Science & Engineering, HNBGU

**Dr. Anuja Rawat**, Head & Associate Professor, Department of Naturopathy and Yoga, HNBGU

**Dr. Alok Sagar Gautam**, Assistant Professor, Department of Physics, HNBGU

**Mr. Abhishek Rawat**, Director, Green Pahadi Foundation, Pauri Garhwal

## Organizing Team

Ms. Kiran Kothiyal, Mr. Nitesh Rawat, Mr. Ankit Sati

Ms. Pratibha Rawat, Mr. Nabdeep Singh,

Mr. Eshwar Singh, Ms. Abha Rawat, Ms. Priya Bansal



**Hemvati Nandan Bahuguna Garhwal University**  
**(A Central University)**  
**Srinagar Garhwal, Uttarakhand**

Hemvati Nandan Bahuguna Garhwal University was established as a State University vide U.P. State Government notification no. (10)/(865)/15/(75)(85)/64 dated 23 November 1973. It has a rare distinction of taking birth through a powerful popular movement during the early seventies in the last century. The people of the remote mountainous region agitated for opening a university at this small but historic semi rural town of Srinagar for the higher education.

It was an expression of the quest for empowering their future generations for overcoming endemic economic and social backwardness, geographic and environmental constraints, re-assertion of cultural identity and harnessing of the local natural and human resources for development.

The university was converted to a Central University on 15th January 2009 by an Act of Parliament i.e. the Central Universities Act 2009. The University, thus has been entrusted with new responsibilities to guide its students, faculty and all other stakeholders to achieve excellence in academics and strive for all round development of the students.

Since its inception, the University has shown commitment towards regional and community development which is inherent in its teaching courses, research agenda and other outreach and extension initiatives. However, being a Central University, HNBGU has a Pan-India appeal and draws students from various pockets of the country.

**Department of Rural Technology**  
**School Of Agriculture & Allied Science**

Department of Rural Technology was established in 1998 with the prime objectives to impart education in the field of rural development to undertake research activities based on regional needs and to initiate to carry out teaching, research, demonstration, training and extension activities for sustainable rural development and livelihood improvements.

Presently, the Department runs two program with the objective to facilitate appropriate development of science and need based technology for rural community:

- M.Sc. Rural Technology (Two year regular course including field based project work) , Semester Module
- Ph.D. Rural Technology (Regular with one semester course work)

**Department has been actively engaged in research activities on various areas, such as:**

- Sustainable Rural Development through Natural Resource Management and Watershed Development,
- Sustainable Livelihood Enhancement through training & capacity building on Mushroom Cultivation & Bee-keeping,
- Promotion of Climate Resilience practice through innovative appropriate technologies.

**FOR FURTHER DETAILS OR ENQUIRY**

**Prof. Rajendra Singh Negi (Convener)- +91-9412079426**  
**[convener.ncsfm@gmail.com](mailto:convener.ncsfm@gmail.com)**

**Dr. Santosh Singh (Co-Convener)- +91-9410974957**

**Department of Rural Technology**  
**School of Agriculture & Allied School**  
**H.N.B. Garhwal University (A Central University)**  
**Srinagar Garhwal**

## Who Can Participate

Academicians from different Institutes/ Colleges/ Universities/ Professionals/ Research Scholars/ Scientists/ Students/ Entrepreneurs/ Government Experts/ NGOs are cordially Invited to participate & present their papers on the themes mentioned. Papers can be presented both in English and Hindi Language.

## Important Dates

Abstract Submission : **20th February, 2024**  
Registration/fee payment  
by : **20th February, 2024**  
Intimation for Abstract  
Acceptance : **1st March, 2024**

## Registration fee for the delegates

S.no	Particulars	INR
	<b>Registration fee</b>	
1	Post Graduate/Research Scholars with shared accommodation	1500
2	Post Graduate/Research Scholars without accommodation	800
3	Faculties/Scientist/Research officers/ Working Professionals without accommodation	1500
4	Faculties/Scientist/Research officers/ Working Professionals with shared accommodation	2500
	<b>For Advertisement in Souvenir</b>	
1	1 page ad. (colour) with 2 people shared accommodation	7000
2	1 page ad. (colour) without accommodation	5000
	<b>For Stall &amp; Exhibition</b>	
1	2 Person with shared accommodation	7000
2	2 Person without accommodation	5000

## Account Details:

**Account Name:** Finance Officer, HNBBG University

**Branch Name:** Indian Bank, Srinagar Garhwal

**Account Number:** 7094402767

**IFSC Code:** IDIB000S766

## Call for Abstracts/Papers

The original research papers/ abstracts/ conceptual papers related to the conference themes are invited from all the stakeholders' viz., students, faculties of the institutes and PSUs/ Companies/ Private organizations. The soft copy of the Papers/ Conceptual papers may be sent on or before 28.02.2024. The abstracts should not exceed 500 words, should be typed in double space leaving 2.5 cm margin on all sides on A-4 paper. Three to five key words should be given below the abstract in italics. The font should be Times New Roman in 12 pt. size. The abstract should be attached with registration form in MS word format. A committee will review the abstracts and decide about the nature of presentation (oral/ poster). Author(s) will be intimated regarding the acceptance of the abstracts/ papers.

*The Committee will curate and publish only the most high-quality papers as a 'Special Conference Collection' in the prestigious 'Weather, Climate & Society Journal' of AMS ( American Meteorological Society).*

## Registration Form link for Participation

<https://forms.gle/njrsZ1jYmtALAUwU9>

## Registration Form link for Advertisement in Souvenir or Stall & Exhibition

<https://forms.gle/z8kyxTa1Ch4ggkZG8>

## Location And Weather

Srinagar in Uttarakhand is situated in the Lesser Himalaya segment of the Alaknanda basin around (30°12'-30°15' N) and (78°45'-78°50' E) above 560 meters MSL.

Venue is accessible via Badrinath Highway, approximately 150 km northwest of Dehradun. The town boast efficient road connectivity through shared taxi and Roadways Buses. In March, Srinagar Garhwal, Uttarakhand experiences transitioning weather. Days are relatively mild, with temperatures ranging from 15 to 25 degrees Celsius. Nights can be chilly, with temperatures dropping to around 10 to 15 degrees Celsius. The region may witness occasional rainfall contributing to a mix of spring and lingering winter conditions.





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## Prospects and Challenges:

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Uttarakhand

# CALL FOR PAPERS

## THEMES

- ✓ Sustainable Agriculture
- ✓ Environmental Challenges in Himalayan region
- ✓ Rural Technology & Rural Development
- ✓ Climate Change Impact & Adaptation
- ✓ Social Sector Interventions
- ✓ Transforming Food Security through Value Addition
- ✓ Agri-nutraceutical farming

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## REGISTRATION FEES

- |  |            |
|--|------------|
| • Post Graduate/Research Scholars with shared accommodation                              | : INR 1500 |
| • Post Graduate/Research Scholars without accommodation                                  | : INR 800  |
| • Faculties/Scientist/Research officers/ Working Professionals without accommodation     | : INR 1500 |
| • Faculties/Scientist/Research officers/ Working Professionals with shared accommodation | : INR 2500 |



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Kindly Scan for  
Detailed Information  
& Registration

