

## Application process

Prescribed application format as given below:

1. Full Name (in block letters):
2. Designation:
3. Present employer and address:
4. Address to which reply should be sent:  
(Phone, mobile, fax & email id)
5. Date of Birth:
6. Sex: Male/ Female
7. Experience in teaching/research/extension  
(Years)
8. Need for this training and how it helps in  
your on-going research activities

Signature of the applicant

Date:

Place:

Recommendation by Head of College/ Institute/  
Station/ KVK:

Signature:

Designation:

Address:

Duly forwarded applications should be sent to  
the Course Director or Course Coordinators.

Preferred mode of communication is e-mail.

## Important dates

Last date for application: January 18, 2016

Intimation of selection: January 20, 2016

Confirmation by participants: January 25, 2016

Course Director: Dr. R. K. Avasthe

Course Coordinators: Dr. Raghavendra Singh  
Dr. Subhash Babu  
Dr. Brijesh Kumar  
Sh. Shaon K. Das

All correspondence will be addressed to:

Dr. R. K. Avasthe  
Joint Director and Course Director  
ICAR Research Complex for NEH Region  
Sikkim Centre, Gangtok, Sikkim-737102  
Email: [jdsikkim.icar@gmail.com](mailto:jdsikkim.icar@gmail.com)  
Phone number: 03592-231030

OR

Dr. Raghavendra Singh  
Course Coordinator  
Senior Scientist (Agronomy)  
ICAR Research Complex for NEH Region  
Sikkim Centre, Gangtok, Sikkim- 737102  
E-mail: [raghavenupc@gmail.com](mailto:raghavenupc@gmail.com)  
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## TRAINING ON Diversification of Hill Agriculture: An Approach for Climate Change Adaptation and Mitigation

(February 16-25, 2016)

**Sponsored by**  
National Innovations on Climate Resilient  
Agriculture (NICRA)  
ICAR RC for NEH Region  
Umroi Road, Umiam, Meghalaya-793 103



**Organized by**  
ICAR RC for NEH Region  
Sikkim Centre, Tadong,  
Gangtok, Sikkim-737 102



### ***About the training***

Climate change phenomenon is now a global reality. Increasing trends will have different impacts in different regions resulting in irregular, unpredictable rainfall patterns, uncommonly heavy rainfall, increased incidence of storms, cyclones and prolonged droughts *etc.* At the same time, there is an increased possibility of other climate extremes, such as the timing of onset of monsoon, intensities and frequencies of drought and floods. In India, CO<sub>2</sub> fixation becomes more important, because we use more than 200 million hectare of land for farming. The impact of climate change on production of various crops varies markedly depending on the agro-climate of the region, growing season, the crops and their temperature thresholds. Cereals, oilseeds and protein crops depend on temperature, and day length to reach maturity.

Therefore, the aforesaid training on climate resilient agriculture will be conducted as a part of the capacity building programme under NICRA at ICAR Research Complex for NEH Region, Sikkim Centre, Tadong, Gangtok. In this training programme, emphasis will be given on climate change and possibilities of diversified farming to cope with the problems and its impact on crops, animals and management of natural resources will be addressed.

The proposed training will acquaint the teachers/researchers/extension personnel about

adaptation and mitigation strategies by using the tools of diversified farming for managing emerging environmental problems for enhancing sustainability of agriculture. Additionally, the course will also include various technologies for efficient utilization of natural resources for enhancing productivity of crop as well as animals especially in hilly areas.

### ***The course will revolve around***

- *Resource conservation techniques for improving productivity of crops and maintain the sustainability of the resource base.*
- *Exposure to improved land and water resource management options/strategies/models in hill ecosystems.*

### ***Course Content***

- + Climate change impact on hill agriculture and farmers adaptive strategies.
- + Challenges and prospects to realize diversified agriculture in North East Hilly region of India.
- + Diversification of smallholder farming in North East India under climate change.
- + Use of microbial consortium for enhancing productivity of broad spectrum of crops.
- + Resource saving equipments for hill agriculture leading to higher productivity and profitability.
- + Role of carbon in ecosystem services from diversified agriculture.

- + Adaptation strategies for crop–livestock systems in changing climatic scenario of mountain ecosystems.
- + Water management options for efficient crop production in changing climatic situation.
- + Scaling-up mountain agricultural productivity through resource conservation technologies under present era of climate change.
- + Dynamic agriculture planning through long range crop specific forecast- a futuristic strategy for sustainable agriculture in a changing climate.
- + Insect pest management through innovative approaches in organic production systems for enhancing climate resilience.
- + Reproductive disorders in farm animals and their management under changing climate
- + Strategies to minimizing greenhouse gases emission from livestock manure

**Note: All the contents are practical oriented.**

### ***Eligibility***

Assistant Professors/ Scientists/ Extension personnel of different ICAR institutes, SAUs, CAUs and KVKs will be eligible to apply.

**Note:** All participants are entitled to lodging and boarding and other facilities. **Reimbursement of travelling expenses shall be restricted only up to III AC (excluding Rajdhani and Shatabadi).**