



PROGRAMME SCHEDULE

2ND TO 4TH MAY 2018

VENUE : FRI, DDN

PROGRAMME

DAY 1 : 2nd MAY, 2018

TIME	PROGRAMME
9:00-09:30 Hrs.	Registration
09:30 - 09:35 Hrs	Lighting of Lamp by the Chief Guest
09:35 - 09:40 Hrs	Welcome of the dignitaries
09.40 - 09:47 Hrs	Welcome Address by Dr. Savita, IFS, Director, Forest Research Institute
09:47 - 09:55 Hrs	Address by Mrs. Manisha Panwar, IAS, Principal Secretary, Watershed Management, Govt. of Uttarakhand
09:55 -10:05 Hrs	Address by Mrs. Neena Grewal, IFS, Project Director, UDWDP-II
10:05 - 10:20Hrs	Keynote Address by <i>Padma Shri</i> Prof. Shekhar Pathak, Historian, Founder of PAHAD & Social Activist
10:20 - 10:35 Hrs.	Address by Shri Satpal Maharaj, Hon'ble Minister of Watershed Management, Govt. of Uttarakhand
10:35 - 11:00 Hrs	Felicitation of Progressive Gram Panchayats of UDWDP-II Release of Books on Convergence and Climate Resilient initiatives by Gramya
11:00 - 11:15 Hrs	Address By Shri Trivendra Singh Rawat, Hon'ble Chief Minister, Uttarakhand
11:15- 11:25 Hrs	Vote of Thanks by Mrs. Neena Grewal, IFS, Project Director, UDWDP-II
11:15 - 11:30 Hrs	Inauguration of Farmer's Produce Exhibition
11:30 - 12:00 Hrs	Hi Tea
12:00 - 13:30 Hrs	<p>Plenary Session-1</p> <p>Agroforestry : Means for Climate Resilient Mountain Agriculture</p> <p>Agroforestry offers a potentially sustainable land-use solution, which could re-establish forests, restore ecosystem services, and stabilize local livelihoods in mountains. Through the integration of trees on farms and within the agricultural landscape, it is believed to diversify and sustain production for increased social, economic, and environmental benefits. The introduction of more complex agroforestry systems can increase the biodiversity in the systems and broaden the range of products produced; both of which will build resilience in local farming systems in hills. There is a need to analyze and discuss the potential of agroforestry in view of the changing climatic conditions to find the answers on:</p> <ol style="list-style-type: none"> 1) Can improving the existing and adopting new, integrated agroforestry systems acts as a viable ways toward sustainable livelihoods in mountain farming ? 2) Is there evidence that farming systems that integrate agroforestry practices are more resilient than systems that do not? 3) What are market and policy imperatives for expanding agroforestry systems in mountains?

	<p>4) Is the unavailability of the quality planting material a major hurdle in adopting new agroforestry systems ?</p> <p>Panelists - <i>Dr. Jagdish Chander, CCF, Haryana</i> <i>Dr.R.C.Dhiman, Ex. CEO, WIMCO Seedling Ltd. Rudrapur</i> <i>Sh. Ranjeet Raina, President, Haryana Agroforestry Farmers Association,</i> <i>Dr. Ashok Kumar, Scientist F and Head Genetics and Tree Propagation Division, FRI</i></p> <p>Moderator- Dr. Savita, Director, FRI</p>
13:30 - 14:30 Hrs	Lunch
14:30 - 15:45 Hrs	<p>Farmers Session</p> <p>Traditionally Uttarakhand is an agrarian state with diverse climate condition and about 78 percent of its population is dependent on agriculture for their livelihood and contributing 27 percent to the state domestic product. Diversity resulting from a high degree of spatial, temporal, physical and biological variability that at one level and small, scattered land holdings at the other level makes it difficult to achieve economies of scale, same time it offers potential prospects for farm and non-farm produce and services having a comparative advantage over the plains.</p> <p>Climate change is likely to adversely impact the agriculture and to migrate this at grass route level innovative farmers are utilizing a blend unique traditional knowledge and modern technological advancement in their production system. Therefore, there is need to analyze and discuss the farmers experience and innovations:-</p> <ol style="list-style-type: none"> 1. What are the resilient indigenous and technical modern practices adopted by hill farmers? 2. Are there any extend system to the sustainable adopted practices of farmers? 3. What are the real challenges faced by hill farmers ? <p>Chairpersons- <i>Dr. Shekhar Pathak</i> <i>Dr. S.S. Singh, KVK, Dhakrani</i> <i>Dr. S. Sachan, KVK, Dhakrani</i></p> <p>Moderator- <i>Dr. S. K. Singh, Deputy Director, WMD</i></p>

	Divisions: i) Farmers from Dehradun ii) Farmers from Pithoragarh iii) Farmers from Uttarkashi iv) Farmers from Bageshwar v) Farmers from Dehradun PMU
14:30 - 15:45 Hrs	Posters Exhibit (Parallel)
15:45 - 16:00 Hrs	Tea Break
16:00 - 17:30 Hrs	Farmers Session contd... Divisions: i) Farmers from Almora ii) Farmers from Tehri iii) Farmers from Pauri iv) Farmers from Rudraprayag v) Farmers from ILSP
16:00 - 17:30 Hrs	Posters Exhibit (Parallel) contd...

Tea - At Mango Grove, FRI
Lunch- At Officers' Club, FRI

PROGRAMME

DAY 2 : 3rd MAY, 2018

Time	Programme
09:30 - 11:00 Hrs	Plenary Session 2 : Can mountain farmers' income be doubled through agriculture? Resource constraints (both land and water) and climate change are playing up on mountain farms, with forced migration being the inevitable result. Can income from mountain agriculture be doubled? Can diversification and niche farming contribute to <u>doubling farmers incomes</u> ? Are there examples worth emulating? What could drive farmers to change from business-as-usual approach to <u>precision agriculture</u> with weather forecast information? What are the policy imperatives to induce such transformative approach in the mountains? Panelists - <i>Dr. B. M. Pandey, VPKAS, Almora</i> <i>Dr. Suhas Wani, ICRISAT</i> <i>Dr. N. P. Melkania, Gautam Buddha University, Noida</i> <i>Dr. Sanjay Dwivedi, Director DLR-DRDO, Tejpur, Assam</i> Moderator- <i>Dr. Sudhirendar Sharma</i>

11:00 - 11:15 Hrs	Tea Break
11:15 - 13:00 Hrs	<p>Technical Session1 Understanding economic imperative of Climate Resilient Agriculture Practices</p> <p>Like most mountain regions in the country, Uttarakhand is traditionally an agrarian state. Close to 78 per cent of its population is dependent on agriculture for livelihood, contributing 27 per cent to the state domestic product. Climate change is likely to result in reduced productivity of most crops with higher risk to rabi crops. Higher incidences of pest and diseases are expected with rise in temperature. Spatial changes in diversity of tropical and temperate crops across all agro-ecological zones are likely due to changes in weather patterns.</p> <p>Increasing efforts to mitigate and adapt to climate change imply an increasing complexity of interactions across all the spheres covering land use, biodiversity, livelihood, ecosystem services, water, agriculture and energy. In this scenario what are the climate resilient agricultural practices, which also at the same time assure farmers sustained livelihood?</p> <p>Chairpersons <i>Dr. P.K. Mishra, Director ICAR, IISWC</i> <i>Prof. Y P S Dabas, Director Extension GBPUAT</i></p> <p>PRESENTATIONS:</p> <ol style="list-style-type: none"> 1. Implications of Climate Change - Apple Cultivation in Uttarakhand - Dr. Narayan Singh 2. Identifying opportunities for restoration in the mountain state of Uttarakhand using ROAM for enabling communities and ecosystems to adapt to the changing climate - Anushree Bhattacharjee 3. Climate change, Impacts, Vulnerability and Resilience; An Overview of Mountain Agriculture Systems - N.H. Ravindranath 4. Climate Resilience In Mountain Agriculture: Issues And Responses - N.P. Melkania 5. Trend detection of Satellite estimated agro-hydrological variables over time: Study of its impact on Agricultural yield - C. Sebastian 6. Impact of climate change on traditional hill agriculture in high altitude of Uttarakhand Himalaya: conservation and cultivation of medicinal plants as an easy option - V.P. Bhatt 7. Sustainable development practices under land use transformations -Priyanka Swami
13:00 - 14:00 Hrs	Lunch

14:00 - 15.30 Hrs	<p>Technical Session 2 Mitigating the impacts of changing climate scenario</p> <p>Hill agriculture is home to small land holdings that are largely rainfed, marginal and fragmented. The average land holding size is very small and the net sown area is also just 13% in the state, compared to the national average of about 43%. As large areas in the hills are rainfed, there is a need to generate alternate sources of irrigation to increase the net irrigated area through rain water harvesting, and use of efficient water management techniques, initiatives/interventions to improve in-situ soil moisture regimes, and comprehensive landscape management. What are the approaches that mountain farming communities needs to adapt to the changing climate scenario?</p> <p>Chairpersons - Dr. P. Dobhal, Director General, UCOST Dr Anand Sharma, IMD, Delhi</p>
	1. Participatory Water Resource Development in Hilly Areas of Uttarakhand – A Success Story from Jounsar Tribal Area- D.V. Singh
	2. Fish Farming In Hills To Mitigate Impact Of Climate Change- N. N. Pandey
	3. Climate change impact in central Himalayan agro-ecosystem and adaptation/mitigation strategies: Integrating local perception and traditional knowledge- R.K. Maikhuri
	4. Resilience to El Nino, Drought and Climate Change in Mountain Agriculture; Weather Forecasts, Agromet advisories and Contingency Planning.- N.H. Ravindranath
	5. Remote Sensing and GIS Applications in Planning Mitigating Measures of Soil and Water Conservation for Mountain Agriculture- Dr. Suresh Kumar
	6. Contingent crop planning for delayed planting in hill region of Uttarakhand - B.M. Pandey
15.30 - 15.45 Hrs	Tea Break
15.45 - 17:30 Hrs	<p>Technical Session 3 Alternative economically viable livelihood options for the mountain farmers</p> <p>The hill farmers traditionally practice an integrated farming system which includes agriculture, horticulture and livestock. In Uttarakhand the geographical attributes and climatic conditions are favorable for various</p>

livelihood options including fruit orchards, the state also has a unique advantage of producing off-season vegetables, spices and floriculture. Also at the same time the traditional practice of livestock rearing is critical to rural prosperity. How these livelihood options can be integrated to create a triple win situation for the hill farmers?

Chairpersons

Ms. Jyotsna Sitling, JS, Govt. of India

Dr. B. S. Negi, Retired Director, Horticulture, Govt. of Uttarakhand

	1. Traditional farming landscapes of Uttarakhand hills and sustainable food systems: Challenges and opportunities- I.S. Bisht
	2. Genetic improvement and Conservation of Indigenous cattle (Bos Indicus) through Embryo Transfer Technology- Dr Ajay Pal Singh Aswal
	3. Rehabilitation of Abandoned Land through Lemongrass Learnings from Peeda Cluster for Upscaling - Sunil Sah
	4. Diversifying Livelihood Option in the Mountain Region of Uttarakhand through Cultivation of Medicinal Plants- Vinod K. Bisht
	5. Farmers Centric Technologies for Commercial Tomato Production under Prevailing Agro Climatic Conditions- S.S. Singh
	6. Under changing climate scenario, a livelihood option for farmers of lower hills-apple cultivar Anna- Dushyant Mishra

PROGRAMME

DAY 3 : 4th MAY, 2018

TIME	PROGRAMME
9.30 - 11:00 Hrs	<p>Plenary Session 3</p> <p>Is improving water productivity and water use efficiency solution to the productivity-sustainability conundrum afflicting mountain agriculture?</p> <p>Mountain farming on small plots is largely rain dependent, and reasonably productive to its potential. However, in the quest to increase productivity moisture has been considered an impediment, and efforts are increasingly made in recent years to harvest water from all sources. Yet, there is a limit to which water can be stored/harvested to attain levels of desired productivity or are we managing and using this resource inefficiently? How can productivity-sustainability conundrum be resolved keeping ecosystem integrity intact in the long run? Also can improving water efficiency be correlated to economic efficiency in agriculture in the hill scenario?</p> <p>Panelists - <i>Dr. M. Sekhar, IISc, Bangalore</i> <i>Er. Kireet Kumar, Director In-Charge GBPNIHESD Kosi-Katarmal</i> <i>Dr Anand Sharma, IMD, Delhi</i> <i>Prof Ravindranath, IISc, Bangalore,</i></p> <p>Moderator- Dr. Sudhirendar Sharma</p>
11:00 - 11:15 Hrs	Tea Break
11:15 - 13:00 Hrs	<p>Technical Session 4</p> <p>Creating an ecosystem of remunerative markets under changing climate</p> <p>High rate of economic growth has transformed mountain markets. With migration from hills a growing trend, developing infrastructure in the hinterland with business plans that ensure better return on investment in developing a marketing chain holds special significance. Lack of basic infrastructure in the remote hills, poor connectivity and absence of livelihood opportunities can improve local livelihoods. Can organizing farmers into federations, value additions /processing units, transit storage and collection centers, and marketing facilities offer innovative marketing solutions?</p> <p>Chairpersons- <i>Prof. B K Sikka, Global Agri System New Delhi</i> <i>Mr. M. S. Kunwar, HARC</i></p>

	1. Blending Climate Smart Agriculture Practices And Agribusiness Approaches In Diversified Agriculture Livelihood Systems In Rawain Region Of District Uttarkashi (Uttarakhand)- Shishupal Mehta
	2. Adapting Towards Extreme Climatic Conditions for Sustainable Livelihoods: Promotion of Climate Resilient Crops and Water Management for Piloting Agribusiness in Uttarakhand- Pankaj Tewari
	3. Using Mass Artificial Insemination and Female Sorted Sexed Semen Technology to strengthen the livestock livelihoods in a cluster (Agribusiness) approach.- Dr Ashok Kumar
	4. Creating Agricultural Supply Chain Ecosystem of Remunerative Markets under Changing Climate in Uttarakhand Region- Mr. Shantanu Trivedi
13:00 - 14:00 Hrs	Lunch
Valedictory Session (15:00 - 17:00 Hrs)	
15:00 - 15:05 Hrs	National Anthem
15:05 - 15:10 Hrs	Welcome of the dignitaries'
15:10 - 15:18 Hrs	Welcome Address by Dr. Savita, IFS, Director, Forest Research Institute
15:18 - 15:25 Hrs	Address by Mrs. Manisha Panwar, IAS, Principal Secretary, Watershed Management , Govt. of Uttarakhand
15:25 - 15:40 Hrs	Summary of Deliberations of the Summit presented by Dr. Sudhirender Sharma, Environment Consultant
15:40 - 15:50 Hrs	Address by Mr. Ranjan Samantaray, Senior Agriculture Specialist, World Bank
15:50 - 16:05 Hrs	Address by Guest of Honour, Shri Subodh Uniyal, Hon'ble Minister of Agriculture & Horticulture, Government of Uttarakhand
16:05 - 16:20 Hrs	Felicitations of Progressive Farmers and farmer exhibition stalls
16:20 - 16:35 Hrs	Remarks by Chief Guest, His Excellency Dr. Krishan Kant Paul, Governor of Uttarakhand
16:35 - 16:40 Hrs	Vote of Thanks by Mrs. Neena Grewal, IFS, Project Director, UDWDP-II
16:40- 16:45 Hrs	National Anthem
16:45 - 17:00 Hrs	Hi Tea
