

Building a green UTTARAKHAND

CONSUMER CONNECT INITIATIVE

“ Since the average landholding size of hill farmers is small and the state is facing production crisis with climatic variability, its high time when an integrated farming approach is adopted, where horticulture, off season vegetables, animal husbandry, dairy, poultry, bee-keeping, and organic farming add much to hill livelihood options.

- Dr Krishan Kant Paul, Governor, Uttarakhand

Experts also stressed upon the need for a decisive support system that brings weather forecast to farmers on a weekly basis. Crop water requirements and budgeting were other areas that were underlined.

Dr Sudhendra

Summit in numbers

24 EMINENT GUESTS

70 EXPERTS

750 PARTICIPANTS INCLUDING 250 FARMERS

60 PRESENTATIONS

4 TECHNICAL SESSIONS

SUMMIT FINDINGS

✓ Comprehensive farming including agri-horti-livestock production system along with fisheries and apiculture could add-on in mountain farm income.

✓ Crop water requirements and crop water budgeting is crucial.

✓ Need to develop and link farmers to agro-met services

✓ Collective production, marketing and creating value chains for nutritious coarse grains like finger millet, barnyard millets etc.

✓ Land consolidation or any other alternate solution should be adopted to cope with the challenges of fragmented hill farming.

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Watershed Management

DIRECTORATE: Vision: To improve the productive potential of natural resources and increase incomes of rural inhabitants in degraded watersheds of the state through socially inclusive, institutionally and environmentally sustainable approach

PROJECTS CURRENTLY GOING ON:

- Uttarakhand Decentralised Watershed Development Project Phase-II (Gramya)
- Integrated Livelihood Support Project (PS-WMD)
- PMKSY (earlier Integrated Watershed Development Program)

THE STATE CAPITAL RECENTLY HOSTED A SUMMIT ON CLIMATE RESILIENT MOUNTAIN AGRICULTURE



TOWARDS A CLIMATE RESILIENT AGRICULTURE

Shahla Siddiqui

A summit on Climate Resilient Mountain Agriculture was organised in the state capital recently. The event witnessed the congregation of around 70 subject matter experts from across the country, who expressed their ideas, observations and recommendations to achieve a robust agriculture system to fight the changing climate.

The three-day summit was organised by the Watershed Management Directorate (WMD) in association with Forest Research Institute (FRI). In the inaugural session Neena Grewal, project director, Gramya, informed that the summit was aimed to capture various adaptation and mitigation practices that are economically viable for the mountain hill agriculture in the changing climate scenario, explore various alternate livelihoods options, and assess how these could be up-scaled and marketed.

The summit was a first-ever event that brought together farmers, practitioners, scientists, and government departments on one platform to discuss

issues challenging climate-dependent mountain agriculture. And while traditionally, Uttarakhand is an agrarian state, with diverse climatic conditions, special reference was made to the state of Uttarakhand, where land under cultivation is shrinking and is currently estimated to be only 13% of the total land area.

Says, Manisha Panwar, IAS, principal secretary, Rural Development, Watershed, MSME, “For conservation and management of water, the department is working on building a water distribution tank and rain water harvesting. Ponds are also being made for irrigation purposes. For the first time, geo-membrane water tanks are being developed by the state to save time and investment. To increase crops, 'hill seed banks' have been set-up.”

The Summit was divided in various sessions which included one farmers' session, three plenary sessions and four technical sessions along with a farmers' exhibition where in the farmers showcased various climate resilient interventions/ innovations being implemented in hills with support of World

Bank funded Uttarakhand Decentralised Watershed Development Project-II (Gramya-II). Besides 22 oral presentations, 65 poster presentations and farmers exhibition with 30 stalls were also put up.

Whilst the farmer sessions addressed macro policy challenges before the agriculture sector, including the long-overdue land consolidation of



fragmented landholdings, the technical sessions presented scientific developments and take home alternatives/ messages for farmers.

PLENARY SESSION

Plenary session were based on series of topics including agroforestry, doubling farmers' income and improving water produc-

tivity and water use efficiency solution to mountain farming.

TECHNICAL SESSIONS

The Summit had four technical sessions, wherein papers related to the respective session theme were presented and discussed. The first session was dedicated to 'Understanding economic imperative of climate resilient agriculture practices', followed by one on 'Mitigating the impacts of climate scenario'. The third session talked about



'Alternative economically viable livelihood options for the mountain farmers', and the final session was on 'Creating an ecosystem of remunerative markets under changing climate'.

Niche crops in the hills deserve attention through incentives for farmers to grow such crops. Whether it is done through 'A support price mechanism' or 'Payment for Biodiversity', this decision needs to be taken up at the highest level of policy making in the state. There is growing demand for mountain bio-diversity of crops, fruits and herbal wealth.

Sharma, Environment Consultant, summarised the findings of the sessions in valedictory session.

Ranjan Samantary, Senior Agriculture Specialist, World Bank, in his address in valedictory session mentioned that the phase one of Gramya project has already demonstrated the the farmers' income could be doubled through efficient natural resource management by the communities along with diversification of agriculture, agri marketing and value addition.



The climate change happening around us is majorly affecting the agricultural sector. There is need to bring a change in the agriculture techniques. The government is dedicatedly working on water conservation and watershed management. It is trying to make sure that all areas get drinking water supply. Land consolidation is needed to safeguard crops from wild animals. Land parcels too are needed to be rearranged to achieve better productivity and profit.

Trivendra Singh Rawat, Chief Minister, Uttarakhand



The geomorphology and ecology of the mountainous region of the state of Uttarakhand are sensitive to the climate change happening due to the emission of greenhouse gases. As a result, the agriculture sector is bearing the brunt. The summit has a lot of brainstorming sessions on various aspect of this phenomenon.

Satpal Maharaj, Minister, Watershed, Tourism and Culture

Farmers do not know the trend in the market. If they know which crop will be more profitable next season, they can harvest those crops. Also, there are many farmers who have small lands and cannot bear the cost to transport their produce to market. Thus, co-operative farming is necessary, where a group of farmers can share the cost of transportation and other such expenses.



Subodh Uniyal, Minister of Agriculture, Agriculture marketing & processing and Horticulture

“ There is a need for reassessing land resources in the state. Such database can provide insight on location specific issues and help the state strategise actions to transform the farming scenario in the state.

Padma Sri Prof Shekhar Pathak, keynote speaker of inaugural session