CASE STUDIES

CLIMATE ADAPTIVE PRACTICES GRASSROOTS INITIATIVES

Development Alternatives

Disclaimer

This document is an outcome of a project titled "Documenting Best Practice Grassroots Initiatives from Climate Adaptive Perspective", funded by UNICEF for the economic development, social empowerment and environment management of our society. This Document is intended for use by policy-makers, academics, media, government, non-government organisations and general public for guidance on matters of interest only and does not constitute professional advise. The opinions contained in this document are those of the authors only. However, the decision and responsibility to use the information contained in this Document lies solely with the reader. The author(s) and the publisher(s) are not liable for any consequences as a result of use or application of this document.

Climate Adaptive Practices: Grassroots Initiatives
Edition 1, 2014

Supported by

unicef

Unicef
www.unicef.org

Documentation, Compilation and Edited by

Development Alternatives

Development Alternatives
www.devalt.org

Designed by
Binu K George, Jay Vikash

Contributors

Documenters:
Anshul Bhamra, Harshita Bisht, Rowena Mathew, Reemsha Reen
Seher Kulshreshtha, Shweta Prajapati

Edited by:
Divya Sharma

Advisor:
Gazala Shaikh

Cover photo credits:
Development Alternatives, Aranyak, Sambhavna Institute

B-32, Tara Crescent, Qutub Institutional Area, New Delhi-110 016, India

ISBN:
81-87395-09-5

Population	As per 2011 census, Uttarakhand has a population of 10,116,752, and Ranks 20th in India in terms of population.[1]
Climate	The state has five seasons: winter, summer, spring, autumn, and a monsoon season.
Climate Vulnerabilities	Changing weather patterns and rising temperatures, flash floods, increase intensity of extreme rain fall, recession of glaciers, extreme rain events, landslides, cloudbursts.
Average Annual Rainfall	1645.6 millimetre[2]
Economy	Economy of the state is mainly based on agriculture and livestock.

[1] *2011 Census of India.*

[2] *District-wise monthly rainfall data from 2004-2010 for the whole of India by Indian Meteorological department from www.indiaportal.org*

Uttarakhand is a state in the northern part of India. It is often referred to as the Devbhumi due to the many Hindu temples and pilgrimage centres found throughout the state. Uttarakhand is most vulnerable to climate-mediated risks. Mountainous regions are vulnerable to climate change and have shown "above average warming" in the 20th century. The livelihoods of communities are almost primarily based on natural resources - water, forest, agriculture, etc. About three-fourth of state's population is rural and virtually everyone depends on agriculture. Climate change will have direct impacts on livelihoods as most of the economic and livelihood sectors are vulnerable to the impacts of climate change[1].

[1] *www.indiaenvironmentportal.org.in/files/file/uttarakhand%20state%20action%20plan%20on%20climate%20change%202012_0.pdf*

Committed Communities

Key Messages

- Capacity building of rural community institutions on management and sustainable utilisation of resources helps in sustainable development.
- Simple interventions like introduction of climate resilient crops; helped in improving agriculture, as well as helped in maintaining environmental sustainability.
- Market systems also need to be sensitised on climate resilience and environmental sustainability as farmers depend on market for inputs and suggestions influencing their behviour patterns.

© CHEA

1. Context

1.1. Need:

Uttarakhand has been impacted the most due to climatic events and disasters in Himalayan region. Ranging from disastrous events like floods and landslides; to an ecological shift in the region; there have been many climatic changes, which are impacting communities in Uttarakhand today. On one hand, it becomes important to conserve and further sustain the natural resources and on the other, basic needs of community people like food and fodder need attention for fulfillment.

In this kind of a sensitive ecological system the major problems that village communities are facing are lack of livelihood opportunities and a degrading agriculture. The temperature belts of Himalayan region have changed and warmed up in last few years. This has led to a degradation of the traditionally grown fruits and crops in this area, and major shifts in agricultural practices. With a low quality produce, agriculture does not yield much income for the farmers and thus, they look for small jobs in towns, leaving their farmlands barren or sell their farms. The other side of the picture shows that this trend is also affecting the local vegetation, as many of the species are becoming rare in the region. This clearly shows a need to work with local communities to build their capacities for adapting to this climatic change and move towards a more climate resilient agricultural approach.

1.2. Response:

CHEA (Central Himalayan Environment Association) initiated a project for improving climate resilient farming through strengthening of rural community institutions. This project has been supported by Sir Dorabji Tata Trust (SDTT). CHEA has been working in Almora District of Uttarakhand; covering 15 *Van Panchayats* to work on natural resource management.

"Capacity building of rural community institutions on management and sustainable utilisation of resources helps in sustainable development"

2. Objectives

The main purpose of CHEA's project on natural resource management with rural communities is to develop replicable models at village level that advocate for a clear linkage between rural livelihood and management of natural resources and capacity building. This larger objective thus, includes the key sub-objectives:

- Capacity building of community institutions like Van Panchayats for effective forest resource management.
- Introduction and implementation of adaptive solutions for agriculture at community level.

These objectives provide a direction to build community institution base for adaptation of practices; suitable for local environmental context and a sustainable model of environment conservation.

© CHEA

Capacity building of community

3. Approach

CHEA uses participatory approach organising community based institutions "*Van Panchayats*" for engaging with community and strengthening them for effective management. The *Van Panchayats* are also used for providing support for climate agriculture practices to farmers through formation of farmers cluster. This facilitates in effective implementation and sustainability of the initiatives.

© CHEA

Participatory planning for environment conservation and livelihood enhancement

4. Key stakeholders

The key stakeholders in CHEA's project were:

- Van Panchayats of the selected 15 villages in Almora District,
- Market associations of Haldwani and Nainital markets
- Farmers and women from the same villages.

The financial support was provided by Sir Dorabji Tata Trust (SDTTT).

© CHEA

Farmers with their produced at a market

5. Key Components

CHEA follows a participatory process for forest management and strengthening local agriculture, organising community based institutions like *Van Panchayats* at a grass root level. As villages in Uttarakhand are further divided into areas termed as 'Toks'; CHEA organises trainings with Van Panchayats to work with them on forest management. CHEA team members use interesting tools to communicate with Van Panchayats in trainings like wall posters, group exercises etc.

They work closely with each *Van Panchayat* after trainings; to track how these *Van Panchayats* are working further in their respective villages. This tracking involves looking at present natural resources in the village like forest area, number of animals, number of trees of different varieties etc. It also maintains a regular record about functioning of the *Van Panchayats* in terms of meetings held, actions taken, record maintenance and community grievances, if any.

The other part of the project is on working with community members on climate resilient agriculture, CHEA works directly with farmers. Their methodology includes initial research and understanding of the issue with scientific experts, forming farmer clusters at *Van Panchayat* level, demonstration of new techniques and practices and developing market linkages for farmers. This approach provides support and assistance to farmers at every step of agricultural process. Some of the practices adopted are cultivation of tuberous spices like ginger, turmeric and garlic and herb cultivation as these are the safest crops from wild animal infestation.

6. Outcomes and Impacts

The area of intervention for CHEA was Almora district; directly reaching out to 15 *Van Panchayats*. During the first phase of the project in 2006-2008 the activities were undertaken in 7 *Van Panchayats* in Lamgarh block; benefitting approximately 400 families through project intervention; either in form of inputs or through strengthening their capacities.

In the second phase during 2008-2013; the project was extended to 15 Van Panchayats of Almora district. During this time, the project

© CHEA

CHEA members in field with Van Panchayat member for demarcation of forest area

activities reached out to about 8,117 population (including 4000 women). In terms of land about 1124 ha land was covered in this intervention, through 15 *Van Panchayats*.

The major outcomes of this intervention could be seen as:

i. Adoption of new agricultural practices like ginger and herb cultivation provided good market value to the farmers, as well as saved crops from wild animal infestation. Thus, providing a secure option of farming. A village named Dholigaon in Nainital District has shown the highest rate of adoption by farmers.

ii. Use of wasteland, surrounding houses for growing green fodder for animals: This has shown a major result in reducing land grazing inside forest lands. Adoption of this simple practice has also improved women's life by saving their time and energy from going to far away areas for collecting fodder.

iii. Active role of *Van Panchayats* in taking lead in forest resource management: New mechanisms have been developed by *Van Panchayats* for utilising and maintaining their forest resources; after understanding and deeply analysing the utilisation and replenishment patterns.

iv. Market linkages developed by farmers have benefitted them in two major ways: better return value for agricultural produce and access to new seed varieties. This has also rebuilt the interest of farmers in agriculture as an option for livelihood; who earlier despised this, and left their lands unattended.

All these changes indicate that there has been:

- An improvement in the way natural resources are managed by communities.
- Understanding and participation has grown from beneficiaries to change makers.
- Livelihood options have been secured as compared to earlier.

© CHEA

Farmers produce in a market

The key underlining factor in all these changes is that this work is happening inside the natural eco system of Uttarakhand region with sustainable development as the centre approach in all activities. There has been a simultaneous focus on conservation of resources and their judicial utilisation for better standard of living for village communities.

7. Lessons Learnt

Some of the key learnings drawn during the intervention phases by CHEA were:

- While building market linkages for farmers; a traditional relationship of exchange exists between farmers and the market buyers. This relationship influences the farmers very much for adoption of new behaviours. It included practices from use of new seeds to following different cycles of production. Thus, it became important to also work with members of market associations to bring out a holistic change.
- Each community practice has a cultural notion associated with it. And it is very important to ensure that the new practice advocated; does not violate their cultural values. However gradual and subtle changes in socio-cultural environment are not resisted.
- One of the important learning has been that *Van Panchayats* promoted by different agencies, follow different models of resource management. Although all of them follow rules and guidelines given by Forest department; few *Van Panchayats* follow money-for-fuel system; whereas, few others follow a system similar to barter system; where community member need to contribute with saplings or his/her time as guard for maintenance of forest; in return of fuel wood. They need basic capacity building and strengthening in terms of processes; but also need their own space to evolve a community specific mechanism for functioning.
- Components of CHEA's initiative have the potential of being replicated to other parts of Uttarakhand. The organisation has already started work on replicating some models like ginger and herb cultivation with other village communities. A successfully demonstrated model within the same ecological system helps communities to see, learn and adopt easily without the first level resistance.