

CASE STUDIES

CLIMATE ADAPTIVE PRACTICES GRASSROOTS INITIATIVES



Development Alternatives

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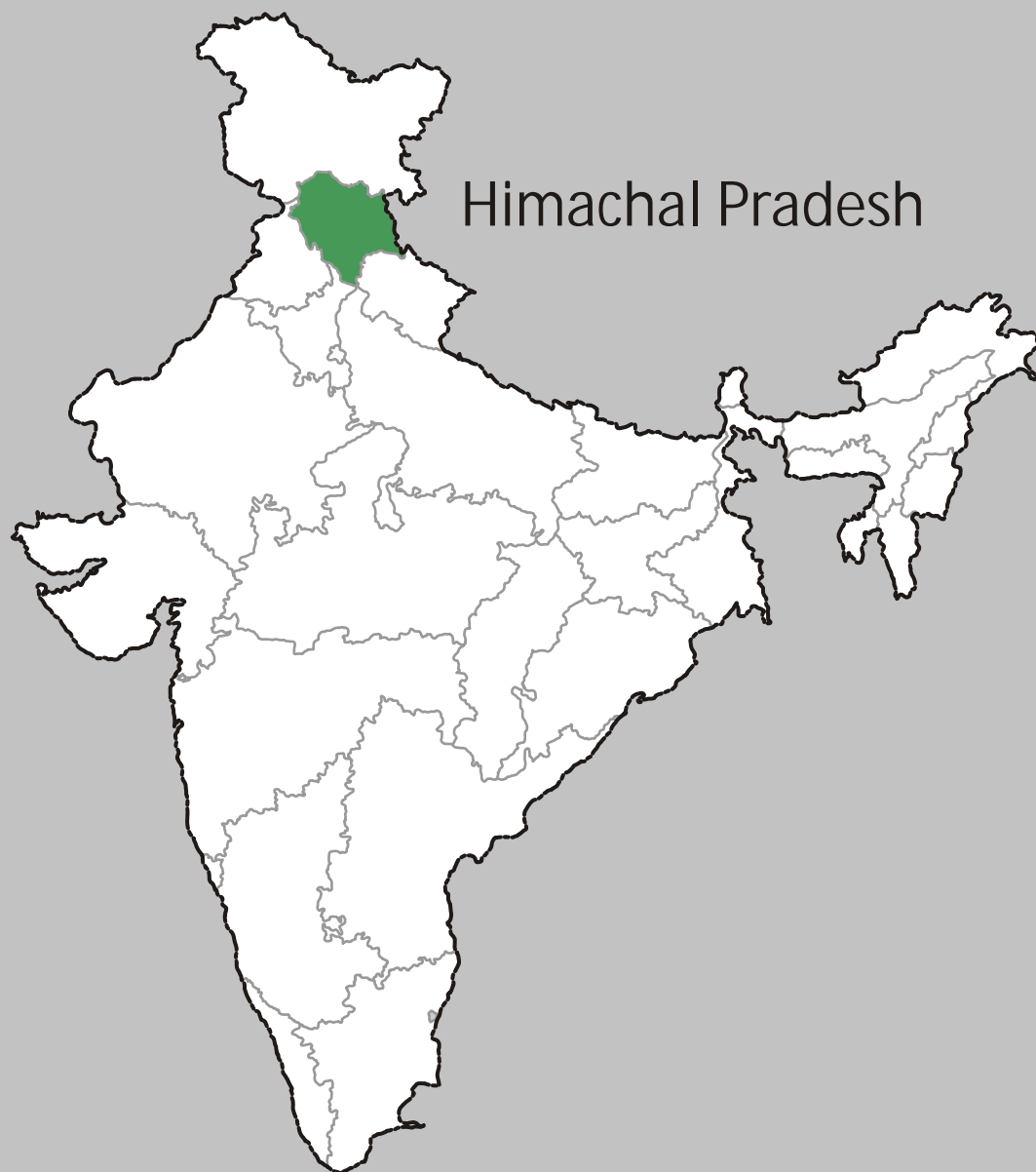
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Population	As per 2011 census, Himachal Pradesh has a total population of 6,856,509. ¹ It ranks 21 st in terms of population in India.
Climate	The state experiences three seasons: Summer, Winter and rainy season. ²
Climate Vulnerabilities	Changing weather pattern, rising temperature, recession of glaciers, extreme rain events, landslides, cloudbursts, flash floods
Average Annual Rainfall	1142.1 millimetre ³
Economy	Agriculture is the main source of income and employment in Himachal. Over 93% of the population in Himachal depends directly upon agriculture which provides direct employment to 71% of its people.

¹ 2011 Census of India.

² "Climate of Himachal Pradesh". himachalpradesh.us.

³ District-wise monthly rainfall data from 2004-2010 for the whole of India by Indian Meteorological department from www.indiaportal.org



Himachal Pradesh, situated in the western Himalayas, is a state in Northern India. Himachal Pradesh is famous for its abundant natural beauty; a land of hill stations, dense forest ranges, deep valleys, snow-capped mountain ranges, serene and cool environment. Agriculture contributes nearly 45% to the net state domestic product. It is the main source of income as well as employment in Himachal. About 93% of the state population depends directly upon agriculture. The Himalayan ecosystem is fragile and diverse. It includes over 51 million people who practice hill agriculture and remains vulnerable. The Himalayan ecosystem is vulnerable and susceptible to the impacts and consequences of a) changes on account of natural causes, b) climate change and c) developmental paradigms of the modern society¹.

¹ http://dst.gov.in/scientific-programme/NMSHE_June_2010.pdf

Organic Market Place

Key Messages:

- Knowledge and capacity training on climate resilient practices facilitates informed decisions making by farmers; as farmers prefer organic agriculture when provided guidance, support and appropriate market linkages.
- The adoption of organic farming is equally profitable when facilitated with market linkages and facilitates building resilience of communities to climatic variabilities.



1. Context

1.1. Need:

The Kangra district of Himachal Pradesh lies on the southern spur of Dauladhar Range of the Himalayas.

At present, farmers of this region are practicing subsistence farming in comparison to commercial farming. Commercial farming in the region has been on a decline because of the relative reduction in production, triggered due to climate change over the past few decades. Meagre connectivity with markets because of the hilly terrain is also a factor that influences the farming decisions of the individual.

1.2. Response:

Jagori Grameen collaborated with 40 farmers collectively and developed a network to connect farmers with consumers, who

demand organic products and are ready to recognise the added value of such production. Knowledge mechanisms and connectivity to market catalysed feasible economic incentives; thereby, reducing farmers' vulnerability to market prices. This promoted climate resilient practices based on organic farming in the region.

2. Objectives

- Promote climate resilient agricultural practices and provide farmers substantial income by connecting them directly to consumer base.
- Build a market base that farmers can utilise to understand their customers, as well as strengthen their relationships.
- Reduce the adverse impact of climate change on agriculture, by increasing

¹http://dst.gov.in/scientific-programme/NMSHE_June_2010.pdf

resilience through organic pesticides and manure.

"Knowledge and capacity training on climate resilient practices facilitates informed decisions making of farmers, as farmers prefer organic agriculture when provided guidance, support and appropriate market linkages"

3. Approach

Jagori Grameen works with farmer communities to support them in climate resilient agriculture practices, organic agriculture is not only friendly to the environment, but also promotes better soil health and lesser pollution of soil and air). Organic production also yields positive impact on health of the farmers and the quality of crop production.

They facilitated a transition from inorganic to organic means of production, but most importantly Jagori established green leaf shops, where farmers can sell their organic produce at a relatively higher price than inorganic production. This local market linkage, where customers of organic products are directly linked to the farmer producers is successfully functional on the trust that Jagori has built with customers and farmers. This support for organic transition to farmer has helped them to shift to organic agriculture, despite low yield during the buffer period.

Unavailability of organic manure also hindered the farmers from shifting to organic.

To address this, Jagori Grameen through the Green Leaf Project helped farmers to set up vermi-compost pits and other techniques to get substantial amount of organic manure and pesticide. They also conducted workshops to help farmers understand the buffer period when production would be lower.



© Green Leaf

A woman selling vegetables from organic farming

4. Key Stakeholders

- Farmers: They produce organic agricultural products, which are then sold by Green Leaf Centres.
- Customers: The buyers of organic product in the market.
- Jagori Grameen: They bridge the gap between demand and supply of organic products, facilitating climate resilient agricultural production.

5. Key Components

Every week, a group of 15-25 farmers from a village collect their yields. Every Monday, the Green Leaf Coordinator calls the farmers to know what products are available. By early afternoon, all customers are informed about

the available products, via text messages. During the same time; yields reach the distribution centres, where measurement and packaging is done by local volunteers. Some customers visit and collect products directly from the centres, while others call for home delivery. Jagori has created space for farmers to interact with the customers for their product and gradually, move towards direct customer-farmer relationship.

There is a reduction in the yield, during the buffer period of 2-3 years, when a farmer switches from inorganic to organic farming. Also the yield in the initial phase is not purely organic because of chemical content in the soil. Jagori Grameen also widened their options by sharing knowledge about crops that have higher market value for instance, broccoli and lettuce. The idea of selling their products directly empowered the farmers to reach the market on their own rather than through middle men.

6. Outcomes and Impacts

The Green Leaf Project has:

- Reached around 40 different farming groups in 3 years.
- Significantly impacted the agro-climatic concerns of the region.
- Created a better link between farmers, customers and the market.
- Increased overall income of farmers, due to higher prices of the organic produce in the area due to efforts of green leaf project.

- Reduced the spread of diseases in plants due to resilient nature of organic pesticides.
- Prevented degradation of crops and hence resulted in better quality of agricultural production.
- The crops have shown more resilience to weather extremes.
- Lesser trend of respiratory and skin diseases in the people practicing organic agriculture can be evidently seen on the ground.

An ensured income opportunity by practicing climate resilient agriculture has attracted farmers to practice organic farming, which is mutually beneficial to the farmers and the consumers.

7. Lessons Learnt

- Market based approach to promoting organic farming facilitates transition to organic means of production resulting in a co-benefit approach.
- Guidance and continuous engagement with farmers during the buffer period of transition from inorganic to organic agriculture facilitates in scaling up organic agriculture practice. Trust of the promoter is a key factor facilitating systemic changes.
- Market linkages of producers helps them to understand and utilise the demands of customers into customisation of their products.

