

Case study — PSI

The pristine beauty of the Himalayas belies the hardships and the tough lives led by the villagers of Pakh, a small hamlet tucked away in the Semgadhera watershed within the Bhilangana block of Tehri Garhwal district, Uttarakhand. Low soil depth, steep slopes, scarcity of water, and low productivity have severely constrained profitable farming, leading to migration of youths in search of odd jobs over the years.

In 2004, the villagers of Pakh approached the **Peoples' Science Institute (PSI), Dehradun**, to include the village within their ongoing participatory watershed development programme. The programme focussed on restoring ecological balance, and consequently meeting the basic needs of the rural community, under **Himmothan Pariyojana**.



At the outset, PSI set about building the capacity of **Mount Valley Development Association (MVDA)**, a local non-profit organisation in community-managed watershed development. Consequently, it set about providing technical support to watershed projects.

A participatory watershed development plan was prepared by MVDA for Pakh, and comprised soil and water conservation works, household and irrigation water supply works, fodder development and agricultural demonstrations. Two years later,

five farmers from Pakh were motivated to adopt **Systems of Rice Intensification (SRI)**.

They planted paddy using conventional methods, and SRI on adjacent fields, and used an equal amount of water for irrigation. The results obtained during harvesting indicated a productivity of 2.5 tonnes per hectare in conventionally managed fields, whereas a 100 per cent increase was observed in the SRI fields (5 tonnes per hectare).

“Our brethren in Pakh have shown us the way. Now, we too are adopting SRI in our fields,” says Ram Singh, one of the 50 odd farmers who subsequently adopted this innovative technique in the Semgadhera watershed, and is now reaping rich dividends.

In 2006, **PSI** conducted field trials of the SRI method of paddy cultivation on 40 plots in Uttarakhand and Himachal Pradesh (HP). The trials indicated an average increase in productivity to the tune of 66 per cent, as compared to conventional methods of growing paddy.

A year later, over 350 farmers in both states adopted SRI. Notably, the average productivity of paddy in Garhwal increased from 28 quintals per hectare to 55 quintals per hectare (96 per cent). A similar 83 per cent increase was reported from HP.

Whilst expressing satisfaction with the results, the farmers acknowledge benefits such as reduced seed requirement, savings in water, decreased workload on women, early maturity and high grain and straw yields.



Since 2002, under a component within **Himmothan Pariyojana**, the Trust is supporting **PSI** and **Central Himalayan Rural Action Group (CHIRAG)**, Sitla towards undertaking the capacity building exercise for both, non-profit organisations and watershed committees, in the Garhwal region of Uttarakhand and Himachal Pradesh, and Kumaon region of Uttarakhand respectively.

As on March 2008, 13 such watershed projects have been supported by the Trust in the Garhwal region of Uttarakhand and in Himachal Pradesh. Ten watershed projects have been supported in the Kumaon region of Uttarakhand. The projects have covered approximately 12,752 hectares in 97 villages, affecting over 5,268 households and reaching out to over 26,000 beneficiaries.

With farm holdings in the watershed villages of the mountain states being small (about 1 acre per family), the results of the SRI method of paddy cultivation hold the promise of providing food security to farming families, for whom rice is the staple grain.