A silent agricultural revolution

An innovative agro-horticultural programme, Regional Horticulture Promotion Project at Dr.Graham's Homes in historically agrarian Kalimpong, is encouraging the return of many local residents to their farming roots. One key factor behind this movement is the transformation of agriculture from an activity that barely ensured sustenance to a potentially profitable one.

Sushma Sherpa, a 35 year old farmer from Upper Samalbong, wears an expectant look as she attends the first session of the year-long agro-horticulture training programme at Dr. Graham's Homes in Kalimpong. With a long family history of farming and agriculture as her only source of income, she is particularly motivated to be here, "I am here to learn about new techniques, which I am told will help increase the productivity of my land."

RHPP trainees avidly watch a film on "localisation"/ Photo credit: Satish Nagaraji; OWSA

Ms. Sushma is one among the 18 trainees of the programme that promotes innovative agricultural practices to improve yields, output quality, as well as market reach.

The training programme forms part of the Regional Horticulture Promotion Project (RHPP), a unique initiative of Kalimpong based Dr.Graham's Homes. It is implemented in collaboration with Miyazaki International Volunteer Center (MIVC), Japan with support from the Japan International Cooperation Agency (JICA).

Agriculture in Kalimpong

Kalimpong, a hill station in the lesser Himalayan range in North-West Bengal is situated on a ridge between two hills, Deolo and Durbin, overlooking the Teesta river. The region is rich with an abundance of flora and fauna, with temperate climate that favours agro-horticulture. More than 80% of people in Kalimpong depend on farming for their livelihood and have an average agricultural income of Rs.10,000 per annum.

Despite Kalimpong being primarily agrarian, the scale of operations in the area is small. Most residents produce what they can consume. The few who produce to sell, usually take their produce to the local market that has in the recent years been inundated by products from the bigger cities, like Siliguri and Sikkim. Production is also mostly seasonal, as farmers lack the know-how required to produce/process food throughout the year.

Dr. Graham's Home: Seeds of a better livelihood

Trainees learning to cook soil/ Photo credit: RHPP

Dr. Graham's homes is an educational institution of great repute and standing, established in 1900 by missionaries John and Katherine Graham. It was primarily intended to provide shelter, education and vocational training for under privileged children – these were sponsored by voluntary contributions from several sources across the world, including from MIVC in Japan.

Over time, Dr. Graham's Homes opened its doors to sponsored as well as fee-paying pupils, both locals and boarders from all ethnic and religious backgrounds. Maintaining its commitment to the livelihood needs of the under privileged students and poor communities, it offers vocational training in subjects like agriculture and computers. The Horticulture Technology Center (HTC) which was built by MIVC under the India Green House Community Service Project was supported by JICA between 2005 and 2008.

Leaders of five villages - Santook, Paiyong, Dungra, Pudung and Monchu were selected as they showed keen interest in employing systematic farming methods and trying out new crop/flower varieties that would enhance their income. They were encouraged to experiment in their own fields.

A variety of crops for added value

Mr. L.B. Rai, the village head of Santook, is one farmer who profited from the project. He was the first person in his village to experiment with Japanese rice and now he has progressed to the fourth crop cycle in the cultivation of Japanese rice – his slow and steady approach had given him dividends and this has encouraged many others in Santook.

In the first cycle he tried 100 grams of Japanese rice. Encouraged by the yield, he sowed 400 grams of seed the following year - that yielded him 100 kilograms of produce. In the third year he cultivated 500 grams and got over 143 kilograms. He told us that he sold the Japanese rice for about Rs.80 per kilogram. Soon other farmers began to come forward as they realised their income could rise by 50% with the processes and products promoted by the centre.

It was clearly necessary to strengthen the Technology Center as well as the training function to cater to the growing demand and realise the dream for secure lives and a stable local economy. The second phase of the project, ambitiously named the Regional Horticulture Promotion Project (RHPP), was initiated in 2009 in response to this need.

Helping create a sustainable source of employment

The RHPP aims to enhance livelihood options through innovative, sustainable, organic farming. The training centre houses a tissue culture laboratory, modern farm equipment and low cost greenhouses constructed from local bamboo structures and vinyl sheets.

Beside the year long training programme for farmers, the centre also offers a short-term training programme of one month and mid-term training programme of six months duration. In one year of the project, the RHPP has trained 11, 16 and 89 rural people through its long term (1 year), mid-term (6 months) and short term (one month) courses. The training has attracted not only farmers but also people from other walks of life such as teachers, students and ex-service men.

With a committed and trained team of staff members from India and Japan, and other guest experts including lecturers from the Uttar Banga Krishi Vishwa Vidyalaya (UBKV), Krishi Vigyan Kendra (KVK), Agro-Horticulture Department the training programme imparts contextualised knowledge on various agro-horticulture related subjects including soil cooking, germination, disease and pest management, tissue culture, food processing and construction of low cost green houses. The upgraded infrastructure of the centre facilitates theory and discussion along with practical exercises complemented by extensive field visits.

Cooking soil and greenhouses

The adoption of time-tested, organic techniques can lead to a perceptible rise in productivity and this has been witnessed in Kalimpong.

For Ms. Dolma Sherpa from East Paiyong Busty who just completed the year long course, the process of soil cooking and germination has proved exceptionally critical in raising productivity.

"Usually only 60% - 70% of the seeds used to germinate, but following the soil cooking and germination process, almost all of the seeds germinated, which means 95% yield. Last year we had to buy ball chillies from the market for our domestic consumption, but this year it is the other way around – we had enough production to sell in the market after keeping aside a small quantity for our own use. We feel better when we eat what we grow," says Ms. Dolma.

"Looking at the growth in my field, others in my village are inspired to follow my methods," she says proudly.

For Mr. Mannu Rai in Santook village, it's not just the soil cooking or germination that helped. For several years, Mannu had been cultivating maize, millet, rice and vegetables. The short-term training helped not only to change his approach to cultivation but also added variety to his farm. This year he tried Japanese rice and he is happy to see a good yield waiting for harvest.

He is now able to cultivate vegetables in off-season and make more money. All this is because of the low cost green house. "From the training, I learnt to construct a low cost greenhouse using locally available bamboo and vinyl sheets, where I could grow vegetables during rainy and off-season periods. These are better priced, so they fetch me more money with less effort."

[For more inspiring and interesting story on how low-cost greenhouses helped farmers in Kalimpong wait for part II of the story]

Eliminating intermediaries to ensure fair share in profits

Fresh vegetables for sale at the trainees realistic shop / Photo credit: Satish Nagaraji

The trainees who are part of the RHPP initiative have begun to see another benefit from the project. The training centre has now become a platform where they get together to strategise for a better future. They have formed a cooperative society. The cooperative aims to ensure that farmers' produce reaches the right market at a fair price. "Here, middlemen have been pocketing a huge share of profit that is ethically ours," says Mr.Jitendra Rongong, 64 year old farmer and president of the cooperative.

A shop, christened the "Trainees Realistic Shop" has also been opened in the project premises, where the members sell their produce. Local people enthusiastically buy the farm fresh organic products that they say "taste so much better because they are organically grown."

The training has not only changed the way the farmers do farming, but it has brought a long term transformation to the community in the project villages, which is now expanding to twenty eight. Producing high yields in a systematic and organic way is not the end, it's just a beginning. There is now a platform where trainees have come together to explore some new ways to prosperity, a space that nurtures a sense of sharing and offers hope for the future.