



Himalayan Permaculture Centre (HPC)

Introduction

Himalayan Permaculture Centre (HPC) is a grass-roots NGO registered at national and district level. It has a focus on remote/poor/resource depleted farming communities in Surkhet & Humla districts of Western Nepal, and especially marginalised populations (women & low-caste), using low-tech appropriate technologies to increase domestic farm productivity through reducing costs of labour, money and other external resources while increasing farm diversity, resilience, health, education and livelihoods. The program uses models of design that can be replicated elsewhere and to do that locally trains farmer-trainers that can go to other communities to expand/roll out the working ethics, principles and techniques.

HPC works in ecologically challenging and remote environments at mid-high altitude, frequently on steep slopes where maintaining fertility is a constant challenge, and access to basic services of education, health and markets is marginal. Most of the population are subsistence farmers. As such it would like to see more resilience and abundance in food security, better health, especially through well-being and preventative measures (such as improved diet and hygiene), better quality and appropriate education, and meaningful livelihoods based on local resources and fair trade. Gender and caste discrimination is socially/culturally commonplace, and HPC strives for equality in both of these issues. HPC would like to see local governance being empowered and enabled to manage local human and ecological resources to ethically grow these changes and developments.



Figure 1. Women from Bhadaura village plant SRI rice system in plots around their homes. SRI (System of Rice Intensification) is found to significantly increase rice production while using local varieties and organic techniques

Description of the Agroecology system

HPC started in 2010 but is a continuation of permaculture work started in 1988 so has a huge experience base to build on. It is a grass roots organization made up of staff and members, all farmers, who have a wealth of experience in planning and implementing people-centred development programs in remote and challenging environments. They use a range of techniques for on-farm, domestic self-reliance that are designed to strengthen household security through:

- Increasing and diversifying farm productivity
- Reducing cost of domestic activities in terms of time, labour and money
- Improving health through better nutrition and hygiene and less hard work
- Using and recycling local resources
- Protecting the environment



These techniques are detailed in the Nepali language “Farmers’ Handbook” and another benefit is the use of the handbook for practical literacy education (for the English version see <http://permaculturenews.org/2010/01/06/farmers-handbook/>). The Farmers' Handbook has been produced by local staff and farmers and is available for distribution - several thousand copies have been distributed in Nepal. Staff and farmers have also been trained to produce short training videos based on chapters from the Farmers’ Handbook that can be viewed on mobiles.

Activities address the priorities of the program: agricultural productivity, health, education, livelihoods and capacity building in the most holistic, participatory and integrated way. They are also based on a collection of best practice techniques identified, used and refined over many years in similar environments. It is as a result of feedback from farmers and from other development organisations using the techniques that they have been identified as appropriate in meeting local needs and solving local problems. HPC’s approach is that any desired change firstly needs to be **demonstrated** so that farmers can view first hand. Secondly by providing practical **training**, farmers learn how to create and manage the different techniques. Thirdly by being able to access **resources** of seed, seedlings and educational material farmers have the complete package to be able to replicate techniques in their own communities in a self-determined manner.



Figure 2. The agroforestry and cash crop system of Dip B. Gurung of Chaurgaun village showing fodder trees on terrace edges and crops of cardamom and garlic in the fields

Because it works with communities that are largely subsistence economies, one of HPC's main areas is food security, which then provides a foundation for other health, education, livelihood and capacity building development. Food security approaches and techniques are led through agroecological and organic farming approaches including agroforestry, green manures, compost, Integrated Pest Management (IPM), saving of open-pollinated seeds, rotations, mulching, regeneration of degraded land, etc. Other activities support conservation and regeneration of natural resources, such as fuel efficient wood stoves and biogas, which reduce pressure on forest resources, and sustainable harvesting of non-timber forest products such as fiber plants and herbal medicines, which gives more value to forest areas making them more likely to be protected.

HPC uses the key ethics of permaculture as its core values:

- Earth Care - where activities support, regenerate and increase basic natural resources of soil, water, air and biodiversity, not degrade them (through food security using agro-ecological practices)



- People Care - gender and caste equality; equitable and abundant access for communities to the resources they need to exist and flourish (through health, education and capacity building activities);
- Fair Share - distribution of surplus in the above 2 ethics (through livelihoods and capacity building activities)
- Creating foundations of demonstrations, skills, awareness and knowledge on which communities can develop in a self-determined way is a core overall strategy.

HPC currently works directly in 32 villages (1101 households). Future plans are to increase livelihoods through processing & marketing of local herbs grown by groups and to develop this sector to reduce need for external donations.

Outcomes of the practices



Figure 3. Stove building - Barefoot consultant (BC) Thaman Giri builds a smokeless stove in his own village Khaltakura. The stoves, made entirely from local resources, have been shown to reduce firewood use by up to 30% as well as improve health by keeping smoke out of kitchens

HPC's programs build on many years of experience that their staff have attained in both Humla and Surkhet districts, that has led to the development of a wide range of appropriate technologies and approaches. HPC staff and members have worked in over 50 villages in the 2 districts during which concrete and positive outcomes have been demonstrated, such as a measured increase in rice production and vegetable consumption, reduction in firewood use, and improved health. Between 2012 and 2016 achievements include:

- **3 Resource Centres (RCs)** established and functioning; at least **1726 farmers** attended various trainings using demonstration and training facilities on the RCs
- **104 demonstration farmers** in 21 villages, 387 kitchen gardens, 4841 fruit trees planted, 25,812 multi-purpose trees and shrubs planted in agroforestry plots, 411 smokeless stoves made, 81 farmers practicing SRI, etc.
- **5181 farmers trained** (2574 women, 2607 men) of which 14 are active in helping to train others
- **16 irrigation systems** established for 14 villages on 80.0Ha benefitting 222 households and 1292 people (581 female and 711 male). U/v resistant polythene provided to construct 4 water storage tanks
- **6 Women's Health Camps** provided in 2 districts, treating 852 women, 14 referrals
- **59 specific Women's Health trainings** completed for 1232 women and 18 men
- **19 drinking water systems** established for 10 villages benefitting 2150 people and 3126 livestock
- **252 adults trained in literacy** (228 women, 24 men)
- **Construction/maintenance of 9 schools supported** (6 Surkhet, 3 Humla), gardens started in 5 schools; classes provided to 337 students; 62 grafted seedlings distributed to 62 students. Drinking water systems provided for 2 schools
- **First organic cotton grown in Nepal 2016**
- **Piloting first flexi-biogas system** (run in particular from waste vegetable matter) in Nepal



- **Training in beekeeping and hive construction** provided to 109 famers; 115 hives constructed; NRs 210,000/- (\$2035) earned from sales of 10kg beeswax and 453kg honey
- **6683 cardamom planted**; Farmers produced 150kg Cardamom and earned NRs 211,400/- (\$2050) from sale of Cardamom in 2016
- **60 farmers provided with trainers' training** enabling them to train others
- **6 organisational development** trainings delivered to 120 farmers' group members and staff

Each village has its own committee to oversee local program implementation with support from the staff. There are also a cadre of "barefoot consultants" (BCs) that are chosen because they have successfully implemented farm and domestic improvements on their own land and in their own village over several years. They are also trained in permaculture design, trainers' training and various capacity building roles. They are particularly responsible for training in "new" villages that have requested participation. Some of these villages are close/adjacent to existing working areas, some are distant and involved with other organisations (NGOs and INGOs) that hire them to provide skills training and design. With this structure HPC is not overburdened by ever - increasing demand for its services and aim of expanding the techniques and approaches it uses, instead passing this responsibility over to trained and experienced farmers from its "heartland" of 21 villages in the 2 districts. Meanwhile, BCs work in a further 11 local villages. There are currently 7 BCs working for other projects in 4 districts affected by the 2015 earthquake in central Nepal.

One of the main reasons for development of the Barefoot consultant program is to allow other communities to benefit from their approaches and techniques. This enables spread of its methods without over-burdening the management structure, allowing them to focus on maintaining the core values and quality of administration.



Figure 4. Participants on a Farmers' Training in Surkhet district learn to use an A-frame to make terraces and swales for soil conservation & improvement

Message from farmer to farmers

"I found that when farming it's easy to get tricked into thinking we need chemicals, hybrid seed, fertilizers and the like but actually we have all we need at our feet if we just look and then produce the resources we need on farm. It makes it so much easier. The other point is that it's not just about farming – we need to look after our health and our families too. I am a barefoot consultant and teach women's health as well as grafting and compost making, they are all important."

—Message from Hommaya Gurung, farmer & barefoot consultant for HPC