

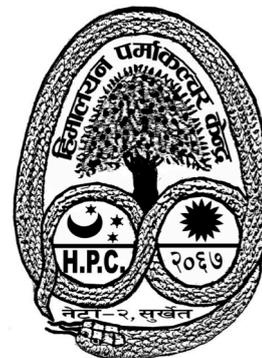
# Himalayan Permaculture Centre

[www.himalayanpermaculture.com](http://www.himalayanpermaculture.com)

Building Livelihoods for Household and Community Resilience

## Annual Report

Date of this report: October 2016



### Introduction and background

This is the first report of the **Building Livelihoods for Household and Community Resilience** program, which follows on from 4 years of capacity building and Resilience-building programs. As such, it continues to build on successful past activities while having an emphasis on building livelihood strategies for villagers in the working areas. These strategies are also aimed at being a model for wider replication and application of HPC's working methods and approaches.

The previous report detailed that many programs had been delayed due to restrictions placed on spending by the Nepalese government's NGO regulating body the Social Welfare Council (SWC). The SWC had ordered freezing of all spending until full review and evaluation processes of all previous programs was complete and new registration protocols followed, while at the same time being very slow to expedite this process. New registration was completed in April but it wasn't until late June that an evaluation team reached HPC's Surkhet program areas. The blockade of Nepal's southern border by India had also severely affected programs in terms of staff movement and acquisition of materials.

These 2 factors combined to create a huge backlog of unimplemented programs. During the current reporting period every effort has been made to make up for the delays but then the onset of the monsoon in late June has further hampered progress (as it always does), and there is still a significant batch of programs that have not been implemented at the time of this report. Those that have are reported below and the status of those still waiting is detailed.

Despite these limitations, progress overall has been good. Farmers have been active in planting over **30,000 fruit and multi-purpose trees, shrubs and grasses** in farm forests, which will help to increase the productivity *and* resilience of communities. In the health program a highlight has been the first ever visit of woman doctor to southern Humla, when HPC ran its annual health camp there in July. In the livelihoods program, there are signs that incomes are increasing with cardamom, honey and vegetable seeds being examples of promising cash earning ventures, alongside traditional cash crops of garlic, ginger and Asian pepper.

### Working Areas

An updated summary of groups' names, locations and demographics is given below.

		Households	Women	Men	Total
Surkhet	2 VDCs, 10 villages	170	515	587	1102
Humla	3 VDCs, 11 villages	263	783	824	1607

<b>Total</b>	5 VDCs, 21 villages	<b>433</b>	<b>1298</b>	<b>1411</b>	<b>2709</b>
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These figures represent the demographics of the villages that have been registered with HPC as participating villages. They do not include the new villages that have requested participation, where HPC staff and barefoot consultants have started to work. Details of activities in these new villages is included in the report below and in the attached annexes, but are kept separate where possible.

Details of the new villages are as follows:

		<b>Households</b>	<b>Women</b>	<b>Men</b>	<b>Total</b>
<b>Surkhet</b>	2 VDCs, 4 villages	<b>98</b>	<b>294</b>	<b>294</b>	<b>588</b>
<b>Humla</b>	1 VDC, 7 villages	<b>307</b>	<b>855</b>	<b>837</b>	<b>1692</b>
<b>Total</b>	3 VDCs, 11 villages	<b>405</b>	<b>1149</b>	<b>1131</b>	<b>2280</b>
<b>Total all areas</b>		<b>1101</b>	<b>1607</b>	<b>1682</b>	<b>5020</b>

## **Commemoration to Bill Mollison**

On 24<sup>th</sup> September 2016 permaculture co-originator Bill Mollison passed away aged 88, and in commemoration HPC will be planting not one but many trees and holding other ceremonial activities. As this is a recent event these are in planning stages along with the plethora of course graduates and their various projects around the world.

## **ACTIVITIES**

### **1. FOOD SECURITY PROGRAM**

#### **1.1 Resource Centers (RCs)**

The RCs in Surkhet and Humla continue to be the hub for all activities in their respective districts. As well as demonstrating many of the techniques taught by the program, they host trainings and group visits, and produce a range of seed and seedling material for distribution in the villages. They are also working farms where new regenerative farming methods are used alongside traditional practices that are either on the farm or on neighbouring farms to illustrate the comparison between different methods and approaches.

#### **RC production – Surkhet&Humla**

Spring and early summer were characterised by a severe drought in both regions, broken only by the onset of the monsoon in June. Many crops in the outlying villages had shown extremely low productivity due to the drought. Fortunately the RCs have availability of limited irrigation for the various nurseries and demonstrations they host, though even this is not available for staple and tree crops. The inclusion of higher densities of tree crops providing shade and biomass for mulching and compost making (also via livestock manure) has resulted in an increased resilience to drought and other climate extremes.

At **Baragaun RC** in Surkhet, over the past 6 months over **125kg** of vegetables have been harvested, bringing the total to **188kg** for the 12 month reporting period. In addition **160kg** of fodder (total 210kg) and **18kg** firewood (total **78kg** – the summer provides less due to the wetness of the monsoon) have been harvested. Over **130 multi-purpose trees**

**and shrubs** including guava, lemon, comfrey and napier grass, have been established on the RC over the monsoon.

New to the RC is a **medicinal herbs plot** where **172 plants** comprising **18 different species** of herb have been established.

Over **80 plants** have been distributed from the farm in the last 6 months making a total of **330** since November 2015.

At the Humla RC in Dapka village of Madana VDC nearly **1100kg of vegetable and grain crops** have been raised over the past 6 months along with a healthy **2064kg of fruit**, including 1100kg of plums and 800kg of peaches. Around the RC, made up of 7 small privately owned farms, a further 44 trees and shrubs have been planted including apple, sea buckthorn and comfrey.

### **Sunrise Farm**

A background to Sunrise Farm was provided in the previous report. Repair and rebuilding of the farm largely stopped during the monsoon by which time the farmhouse re-build had been completed (except for plastering & painting) and a livestock barn had been constructed. The barn was re-built with help from the International Disaster Volunteers, a UK charity, and was so well built it has now been decided to change this use to a training hall, and to build another smaller barn for the 2 cows and poultry that are resident there.

The farm will be host to a **Lime Construction training** due to be held in November, at which time the farm members will learn about lime plastering in order to complete the rebuild. The farm will also demonstrate a relatively new **flexi-biogas system** (see below 4.2) during a training there in late November.

### **1.2 Farmers' demonstrations**

To facilitate demonstrations in the villages, further resource materials such as seed, pipe, sprinklers, secateurs, grafting knives, pruning saws and seedlings have been provided to village groups. Seedlings have including late ripening/good keeping apple varieties from the UK.

### **Farmers making integrated demonstrations**

Details are given below of the number of households implementing various techniques inside and around the farms. Many are tiny interventions or changes to traditional practice, such as keeping water pots and grinding stones covered when not in use, or keeping cooking and eating utensils and pots off the ground on a rack to dry after washing. Others are more production-orientated such as composting, kitchen gardening, agro-forestry and the System of Rice Intensification (SRI).

<b>Practical Activities</b>	<b>May-Oct 2016</b>		
	<b>Surkhet</b>	<b>Humla</b>	<b>Total</b>
No: households implementing	268	269	<b>537</b>
House hygiene	266	215	<b>481</b>
Stove	43	212	<b>255</b>
Toilet	110	265	<b>375</b>
Grinder	262	172	<b>434</b>
Water pot	266	265	<b>531</b>

Hay box	0	0	<b>0</b>
Sweepings	109	136	<b>245</b>
Waste water management	8	247	<b>255</b>
Plate/pot drying rack	111	182	<b>293</b>
Compost	168	40	<b>208</b>
Fodder trough	1	0	<b>1</b>
Salt lick	49	19	<b>68</b>
Kitchen garden/vegetables	233	195	<b>428</b>
Mulching	27	0	<b>27</b>
Liquid manure	45	56	<b>101</b>
Hot bed	0	0	<b>0</b>
Leaf pots	0	100	<b>100</b>
Home nursery	3	187	<b>190</b>
Fruit nursery	39	2	<b>41</b>
Air nursery	0	1	<b>1</b>
Off season onions	0	38	<b>38</b>
Grafting	0	0	<b>0</b>
Budding	1	25	<b>26</b>
Top grafting	15	0	<b>15</b>
Air layering	0	0	<b>0</b>
Pot irrigation	13	0	<b>13</b>
Orchard	21	0	<b>21</b>
Agro-forestry (new farmers)	16	0	<b>16</b>
SRI	25	41	<b>66</b>
Green manures	3	70	<b>73</b>
No till	0	0	<b>0</b>
Bamboo cuttings	18	0	<b>18</b>
Improved plough	238	40	<b>278</b>
Fruit tree Pruning	78	43	<b>121</b>
Greenhouse	0	0	<b>0</b>
Biomass compost	24	0	<b>24</b>
Double digging	5	0	<b>5</b>
Urine collection & use	9	20	<b>29</b>
Seed production	67	1	<b>68</b>
Fruit tree planting	130	24	<b>154</b>

Most of these activities are illustrated in the [Farmers' Handbook](#), a key training tool used by HPC.

Top barefoot consultant and women's health specialist Hommaya Gurung commented while at the women's health camp in Humla:

*“One of the biggest changes I saw was that vegetables are being grown everywhere in all the villages – and not just the odd plant, kitchen gardens are packed with a diverse range of vegetables and herbs. Farmers have really got into the habit.”*

### **Barefoot consultants**

HPC is continuing to focus on the development of its “barefoot consultants” (BCs), lead farmers from its working areas who are able to train farmers in other areas of the region and country. As well as local training and facilitation work within HPC's working areas,

BCs have also been seconded to other programs. There are currently 4 BCs working in 2 villages of the Resilience Through Recovery (RTR) program, a post-earthquake recovery program in Nuwakot and Kavre districts of central Nepal. A further 2 BCs have recently completed a 6-month contract with Herb Nepal near Bhaktapur in Kathmandu, 1 has also completed a 6-month contract with Abari (an earth-building specialist firm) in Chitwan and 1 has provided women’s health training for 20 women to Kamala Foundation in Ilam district of Eastern Nepal. A further 4-day farmers’ training was provided for 20 farmers belonging to *Antar-Nivas Samaj* in Eastern Surkhet district, and a 3-day farmers’ training for 25 members of Tirveni Bikas Samaj, a local organisation working with indigenous *Tharu* communities in Banke district of Western Nepal. Finally, a BC was seconded by HPC to MS Nepal’s “Farmers Without Land” project in Kerawani VDC of Rupandehi district to provide 12 months of farmers’ training, focussed on vegetable growing and nurseries, in an area of the marginalised *Musard* caste of farmers, and pupils and teachers at 2 primary schools.

Work of the BCs within Surkhet and Humla has been mainly in conducting trainings and health camps. In Humla 4 BCs have delivered SRI, fruit nursery and an entire mobile farmers’ training. In Surkhet, 2 BCs have delivered 4 women’s health and 14 livestock trainings – the latter were also part of livestock health camps (see below 1.4).

### **Fruit and multi-purpose tree production& planting**

The monsoon, erratic as it has been, sees the planting season for many types of tree, shrub and grass. Farmers in Humla and Surkhet have been using the skills and tools provided by HPC to grow and establish fruit, fodder, timber, bee forage, medicinal, soil improving and income gaining plants around their farms.

In Surkhet, farmers from HPC’s 10 established groups planted over **1,300 grafted and non-grafted fruit trees**, such as almond, plum, pear, walnut, orange, lemon, papaya, coffee and cardamom. In turn they have produced excess plants to provide **4 other villages** that have recently started to learn HPC’s regenerative community approaches and methods. So in these villages too, a further **867 fruit trees** were planted in their first season of learning.

Many more plants for other uses have also been established. In the “old” villages that have been working with HPC for 5 years now have planted **10,761 seedlings** in agro-forestry designs. Species include bamboo, *Bauhinia*, alder, various *Ficus* species, lemon grass, comfrey, Asian pepper (*Xanthoxylum amatum*), soap nut, *Acacia*, and napier grass. Again, barefoot consultants from these villages provided plants and training to the 5 “new” villages and a further **2,313 seedlings** have been planted there.

### **Fruit Production, Humla**

Planting of hundreds of fruit trees over the past years is literally bearing fruit. Not including the **2064kg** of fruit from the RC in Humla, farmers have recorded **nearly 6500kg** of different fruit as described below:

Peach	Plum	Apple	Pear	Apricot	Almond	Total
1505	2700	1950	270	50	20	<b>6495kg</b>

In addition there are about **1800 grafted plants** in nurseries awaiting distribution in the winter, and several thousand root stock in nurseries awaiting grafting during the same

period. A further **518 cuttings** of mulberry, willow, plum and grape are also in nurseries ready for winter planting.

Summer pruning of fruit trees has also been carried out with a total of **766 trees pruned** (Surkhet 626, Humla130). Species pruned include apple, pear, plum, peach, orange, lemon, lime and mulberry.

### Community Funds

This reporting period's audit is summarised below:

	Loans given	Expenses	Cash	Total NRs	GB£	No: households taking loan
Humla	110,440	280	47,632	158,352	1,056	24
Surkhet	1,032,635	31,554	11,936	1,076,125	7,174	148
<b>Total</b>	<b>1,143,075</b>	<b>31,834</b>	<b>59,568</b>	<b>1,234,477</b>	<b>8,230</b>	<b>172</b>

Use of loans includes for medicine/hospital treatment, buying livestock, paying school fees, running a business (shop) and domestic needs.

### 1.3 Farmers' Training

Different formats of farmers' training have continued since the last reporting period. There are 3 main formats: residential 5-day farmers training held at the Resource Centres (RCs); mobile 3-day trainings held in the villages, and short single-topic trainings of 30 minutes to a few hours, which may be held at the RC or in the villages. Topics are decided depending on season and stakeholder needs, and include nutrition (making superflour for malnourished children), SRI, pinching (removal of leaf sprouts below the graft of newly grafted fruit trees), urine collection and use, making a salt lick, micro-finance, juice/jam making, air layering or planting bamboo cuttings. Mobile trainings may be general or for specific topics such as livestock health (see below 1.4) or women's health (see below 2.1).

Barefoot consultants (BCs) – trained and experienced selected farmers from HPC's original villages are now mainly responsible for providing trainings of all types.

A training summary is below:

Surkhet	No: Trainings	Days	Participants		
			Women	Men	Total
Permaculture Design Course	1	13	4	14	18
Residential Farmers' Training	1	5	5	11	16
Trainers' Training	1	7	4	17	21
Organisational Capacity training	1	4	3	12	15
Mobile Farmers' Training	11	29	152	105	257
Technical Trainings	12	5	44	39	83
<b>Total</b>	<b>26</b>	<b>50</b>	<b>208</b>	<b>184</b>	<b>392</b>

## Humla

Residential Farmers' Training	1	5	8	13	<b>21</b>
Mobile Farmers' Training	4	55	216	197	<b>413</b>
Technical Trainings	76	407	375	782	<b>1157</b>
<b>Total</b>	<b>81</b>	<b>467</b>	<b>599</b>	<b>992</b>	<b>1591</b>
<b>Total All Areas</b>	<b>107</b>	<b>517</b>	<b>807</b>	<b>1176</b>	<b>1983</b>
<b>Previous reporting period</b>	<b>70</b>	<b>114</b>	<b>638</b>	<b>631</b>	<b>1269</b>
<b>Total for the year</b>	<b>177</b>	<b>631</b>	<b>1445</b>	<b>1807</b>	<b>3252</b>

### Slide and Film shows

Although reduced because of the monsoon, film and slide shows have continued to be shown at RCs and in villages using pico-projector technology. A total of **24 picture and video shows** have been provided to over **500 villagers** over the past 6 months – **49 shows to 1083 people** in the last year.

### 1.4 Livestock

HPC focuses on 3 main areas in its livestock health program: training, breed improvement and diagnosis/treatment. Village barefoot vets are now fully trained to implement these programs.

#### Training

BCs have provided livestock health training to **148 farmers** (93 women, 55 men) in Surkhet and **20 farmers** in Humla (12 women, 8 men) over the past 6 months.

#### Treatment

A program of livestock health training and treatment via livestock health camps has been implemented in Surkhet. A total of **14 livestock health camps** have been held, 1 in every village (10 old groups plus 4 new groups). Trained BCs are responsible for delivery of the camps; in this case they were focussed on worming livestock. A total of **2,423 livestock** were provided with worm medicine. In addition there were 37 castrations of goats. A further **301 livestock** have been treated in Humla.

A summary is given below:

	Worms				Mange	External parasites			<b>Total</b>
	Sheep /goat	Cow/ Ox	Buffalo	Horse/ mule	Sheep /goat	Sheep /goat	Cow/ Ox	Buffalo	
<b>Surkhet</b>	1932	256	205	30	0	0	0	0	<b>2437</b>
<b>Humla</b>	43	50	13	5	45	75	42	5	<b>301</b>
<b>Total</b>	1975	306	218	35	45	75	42	5	<b>2738</b>

### Improved breeds of livestock

In Humla, **1 Buffalo bull** has been provided to farmers in Maspur, while **1 breeding male goat** is being provided to Pakhapani group in Surkhet.

### 1.5 Irrigation

Surveys for all irrigation and drinking water (see below 2.2) systems were completed during the previous reporting period that coincided with the dry season, and with the onset of the monsoon implementation is prevented. As this report is being written it is still raining (even in mid-October – this is very unusual) but pipe has been purchased and taken to village sites so as soon as the rain stops, construction of systems will commence.

## **1.6 Appropriate Technology**

### **Rice/wheat thresher**

In Surkhet, 2 improved rice/wheat threshers have been acquired and are starting to be used with the Autumn rice harvest as this report is being prepared. They are foot-pedalled machines that basically speed up the process of threshing. HPC plans to acquire other time and labour saving machines for threshing foxtail and pearl millet – a different machine is required for each – as well as a small device for taking maize kernels off the cob, chaff cutters for chopping up fodder grass and straw, rice weeders, and jab planters devised to plant seed through mulch. The acquisition of these machines was meant to happen this year but due to the problems described above it has been delayed – just the rice/wheat threshers have been acquired for now and the rest will be purchased in the next reporting period.

## **2. HEALTH PROGRAM**

### **2.1 Women’s Health Program (WHP)**

After years of searching, a new nurse, Mrs Sukuma Karki-Buddha, has finally been appointed for Humla. She is originally from neighbouring Mugu district and now married to a local of Madana VDC. She has been active in learning HPC’s approach and has already completed a basic farmers’ training course (see above 1.3).

#### **Women’s Health Training (WHT)**

At the time of the Women’s Health Camp (WHC, see below) a WHT **for 23 women** was held in Humla at the RC in Dapka. The training was delivered by HPC barefoot consultant Hommaya Gurung and Women’s Health expert Januka Bhattarai from Bardiya.

<b>Topic</b>	<b>Issues</b>
<b>Gender</b>	Effects of cultural practice and effects on health e.g. education, taboos
<b>Physiology</b>	Differences between external and internal female and male reproductive organs
<b>Adolescence and puberty</b>	Physical and psychological changes in girls, and importance of health issues at this time
<b>Menstrual cycle</b>	Health, hygiene, workloads and cultural issues (taboos, discrimination, etc.)
<b>Common reproductive system-related ailments</b>	Symptoms, importance of health, hygiene, diet as preventative and curative measures; treatment using simple techniques and local herbs
<b>Family planning</b>	Temporary family planning methods used by men and women; effectiveness; side-effects on women; need for gender-participation

<b>Pregnancy and childbirth</b>	Growth stages/process and the importance of health, diet; dangers
<b>Women in the economy</b>	Role of women; access and control of finance; means of production
<b>Herbs for women's health</b>	Reliance on allopathic drugs, their side-effects and correct use; examples of local herbs and their use; empowerment through use of local resources

As well as the main WHT, 3 shorter mobile women's health trainings (MWHT) have also been delivered to **61 women** by the new nurse with assistance from members of the women's health network (WHN) in Humla. A Gender training was also provided (see below) for 9 women and 9 men. A Gender training was planned for Surkhet that is delayed until the next reporting period.

In total **341 women** have attended various WH trainings in both districts over the past 12 months as shown below:

Type of training	No: trainings	Days	Participants		
			Women	Men	Total
WHT	2	10	37	0	<b>37</b>
MWHT	13	39	272	0	<b>272</b>
Gender workshop	1	5	9	9	<b>18</b>
WHN training	1	3	14	0	<b>14</b>
	<b>17</b>	<b>57</b>	<b>332</b>	<b>9</b>	<b>341</b>

One of HPC's top BCs Hommaya Gurung also provided a 5-day WHT for 18 women working with the Kamala Foundation (PDC recipient & partner in RTR) in Ilam, far eastern Nepal.

### **Women's Health Camp (WHC)**

In this period a women's health camp has been held at Madana Health Post, Humla. This one has to go down in history as the first time a female doctor has been to these communities in the south of the district. It's quite a story: Dr Aradana Bichya of Janakpur on the Tarai in Eastern Nepal, and well known for her pro-active support of Nepal's women's rights movement, managed to walk a day from the nearest airport to Humla (Kolti, in Bajura district) and from then on was carried by a mule to the program area in Madana VDC of southern Humla. One of her team had to return to the airport and from there to home, unable to manage the difficulties of sustained walking and sustenance in the terrain and climate. But Dr Bichya made it there, and to the amazement of the women of the area, most of whom had NEVER seen a woman doctor before let alone had the chance to discuss privately their physical and/or psychological health issues, was able to provide 2 days of counselling, diagnosis and treatment service together with HPC's team to **205 women** at the camp.

Mrs Januka Bhattarai, an experienced Women's Health activist frequently hired to assist on WH camps and trainings reported after the camp:

*“The effect of a woman doctor arriving in the village was extraordinary – even male doctors hardly ever visit these areas let alone a woman doctor, so the local women were truly amazed and appreciative that HPC had brought someone that was able to help with their problems like never before. Also, we noticed at the camp that there were much fewer cases of many types of women’s health issues, especially prolapse cases – 50% less, after last year’s camp and the trainings and counseling that we had done then. One woman that had come last year with a 3<sup>rd</sup> degree prolapse we recommended she go to hospital for an operation, but she was scared so we fitted a ring and taught her about yoga & other strategies. This year she came for a check-up and she was fine! Considering the seriousness of her prolapse she has made a remarkable recovery.*”

*“Talking with the women it seemed that they are taking more care over their own health – keeping cleaner, recognising and diagnosing simple problems more easily and by themselves, using mostly local herbs for treatment. They are more empowered to help themselves, more confident to use local resources. There’s no doubt also that because of HPC’s work there are more vegetables and fruit so their diet is better, their homes are cleaner and especially less smoke because of the stoves they can build, so their health is improving.”*

In total **345 women** have been treated at WHCs run by HPC this year.

### **Gender Workshop**

After the health camp HPC held a 5-day gender training to which men and women were invited. In total 9 women and 9 men participated. Topics included:

- Gender differences between male and female – physical and habitual
- Gender-related violence & its effects on family, community & development
- History of development: roots of gender & caste discrimination and violence against women (VAW)
- Child marriage, caste influences,
- Discrimination against menstruating women & girls and pre- & post-natal women
- Conflict resolution in communities – routes of action at village/VDC level
- Laws and rights around gender discrimination and VAW
- Government strategies & programs to promote women’s rights and prevent gender discrimination and VAW at national, district & VDC level
- Roles of community in advocacy
- Workplan for action by the group to hold further discussion and develop programs to make the work effective

After the workshop Mrs Bhattarai reported:

*“At the start there were men and women of all castes, and the high caste men & Jankris (Shamans) refused to sit near lower castes or eat food that was prepared or touched by any other than Brahmin (high) caste. But by the end of the 5 days of open discussion most were OK and able to eat food and snacks brought by lower castes or menstruating women, it was amazing to see the differences that just the discussion can make!”*

### **Women’s Health Network (WHN)**

WHN meetings have been held twice in Humla over the past 6 months.

## WHN training

In Surkhet a 3-day workshop was held at Baragaun RC for 14 members of the WHN.

Topics were:

- Review of progress over the past year
- What has gone well
- What has been difficult
- What is preventing the WHN being more effective
- What needs to be done to improve the effectiveness of the WHN
- Main issues facing women in the area: reproductive health, domestic violence, cultural taboos, access to rights and freedom from control
- Gender imbalance
- Work plan for the next 6 months

## WH Field trip

In April 14 members of the WHN in Surkhet (10) and Humla (4) went on a field trip to visit other like-minded WH organisations and initiatives throughout Nepal. Details of the trip are given below.

Place visited	What seen
Kaski, Talibarang	Urine collection & use, vegetable nursery, livestock management, vegetable marketing, seed production, Gurung culture, tea plantation, fish production, worm compost
Kaski Begnas	Coffee farm, orchards, worm compost, livestock management, urine collection & use, rice seed production
Ilam, Kamala Foundation, Almost Heaven Farm	Greenhouse, chicken farm, potato tower, waste water management, double digging, vegetable production, livestock management, fruit nursery, tea plantation, kiwi fruit, air nursery
Ilam	Organic & mixed, tea production, tea processing, legume farming, garden design
Darjeeling	Fish farming, wildlife conservation, farmers' markets, cable car, waste management
Kathmandu Sunrise Farm	Earthquake rebuilding, no-till farm, agro-forestry, vegetable polyculture, fruit nursery
Banke Chisapani	Improved cow management, fodder production, paper recycling

## 2.2 Drinking Water

Drinking water programs in Surkhet have been delayed due to the problems described above that have delayed many activities. Several systems have been surveyed and pipe acquired and shipped to the villages, and construction will happen over the next few months and they will be reported as complete in the next report.

## 3. EDUCATION PROGRAM

### 3.1 Practical Literacy Classes (PLC)

These have been running since January in 4 villages in Surkhet and Humla. They were delayed due to reasons described above, but 3 of the 4 classes have been completed and 1 has a further month to run. Details are below:

	women	men	total
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Surkhet	42	0	<b>42</b>
Humla	35	6	<b>41</b>
<b>Total</b>	<b>77</b>	<b>6</b>	<b>83</b>

### 3.2 Schools' Program

In Surkhet HPC continue to work with 6 schools in its area. There have been no classes provided instead work has focused on follow-up on previous classes and work in the school gardens as pupils and teachers continue to develop the productivity of school grounds. At Siddeswori Primary school in Baragaun fruit trees and vegetable beds planted over the past few years have provided **40kg plums, 2 kg pears, 5kg slipper gourds and 10kg pumpkin.**

At Subbatol school 300 seedlings of Indian Bean tree (Bakaino) and 150 peach have been produced, and 15 cardamom plants and 5 lemons have been planted.

HPC has provided a small grant of NRs 7000/- (US\$ 70) to each of the schools it is working with in Surkhet. How the schools have used the grant is described below:

School	Work
Pakhapani	3 classrooms have been plastered
Khaltakura	Hall has been divided into 2 classrooms; carpet purchased
Baragaun	5 chairs made, outside walls repainted
Sano Khaltakura	4 benches & 1 book case built
Chaurgaun	Carpet purchased
Subbatol	Temple constructed at school
Pakhapani	2 whiteboards purchased & 3 chairs built.

In Humla HPC has provided 2 whiteboards to Banadev Primary school in Maspur, and in September commemorated the National Youth Day with a students' competition, held at the high school and involving students from 4 primary and secondary schools in the area. There were 3 competitions. The first involved a quiz, in which half the questions involved permaculture-related questions and the rest on general education. The second part was a facilitated debate between the values and advantages of practical (vocational) verses conventional education. The third part was a lecture competition on the subject of climate change effects and mitigation. Over 300 students, teachers and parents attended.

HPC is starting to see the effects of school vocational learning on domestic households, as children start to implement some of the skills learned during the permaculture classes at home. Staff are in the process of documenting these activities for future reports.

## LIVELIHOODS PROGRAM

### 4.1 Beekeeping

Beekeeping is traditionally fairly low-key during the monsoon and populations start to increase again in the late summer/Autumn flowering season. Late spring was characterised by a prolonged drought but beekeepers were still able to harvest a reasonable crop from both traditional and improved hives that HPC have trained farmers to build and manage. A total of **623kg** was harvested (**Surkhet 406kg, Humla 217kg**) with a **market value** of **NRs 332,400/- (US\$3,165).**

#### **4.2 Vegetable seed production**

During this reporting period over **1100kg of vegetable seed** has been produced by groups in Surkhet (1027kg) and Humla (79kg). Added to 157kg produced in the previous 6 months make a total of **1184kg** produced over the year. Most of the seed is being used locally though excess has been sold and traded by village groups. Species include coriander, broad leaf mustard, daikon radish, broad bean, bean, tomato, aubergine, turnip, potato, Swiss chard, lettuce, carrot, and slipper gourd.

#### **4.3 Cotton Growing & Processing**

Due to the late onset of the monsoon planting of cotton was delayed, finally happening in June after organic seed of 3 varieties (Sea Island, American and Indian) were acquired from Punjab in India and sown in small plots belonging to 16 farmers in Salghadi and Sanu Khaltakura villages and 1 in Gumi in Surkhet. This was the 3<sup>rd</sup> training in the 5-training series. As the monsoon progressed crops were tended, the main work being weeding. The 4<sup>th</sup> training was held in early October, to view development of the crops and to devise crop protection strategies as the cotton matures. One strategy is planting of sunflower as a companion around the cotton plots and within rows. Sunflower acts firstly as a decoy for the bollworm pest, and secondly as a food source for a bee that will parasitize and kill the bollworm larvae. There were problems obtaining sufficient quantities of good quality sunflower seed, however, and poor germination resulted in a lack of plants for sufficient effect. However because this is the first year significant populations of bollworm have not been observed. The most prevalent pest was a leaf eating caterpillar which was controlled by hand picking, possible because of the small size of the plots.

The fifth and final training, when the cotton is ripe and to be harvested and ginned (de-seeded), is due to be held in December. There will then be one follow-up visit and training next year after farmers have planted seeds saved from this year.

#### **4.4 Mills**

In Humla 1 improved flour mill has been completed for Chihi village, Kailesh Dev Krishi group. HPC provided the iron mill wheel & fittings with pipe, and villagers of Chihi provided all construction labour and recycled tin for the roof. In Surkhet surveys for mills have been made in Sal Gadhi and Baragaun villages but implementation has been delayed by the monsoon and problems described above.

#### **4.5 Oil Processing**

Hand operated oil presses have been purchased and delivered to the villages but as yet no formal trials have started due to program delays described above.

#### **4.6 Herbs development stage 2**

In this ambitious program herbs' processing technology is planned to be installed in Surkhet to produce essential oils made from locally grown herbs. This program has been significantly affected by the problems with SWC registration and has still not been implemented. HPC is planning to hire extra temporary technicians to speed up the process. In the meantime the site for the processing unit has been decided in Rajena VDC.

Meanwhile a variety of herbs continue to be planted in plots on farms and RCs in Humla and Surkhet. This season a total of **2133 herbal plants comprising 23 species** have been established (Surkhet 679, Humla 1454).

#### **4.7 Weaving & Fibre Processing**

In this program extra spinning wheels for nettle, hemp and sisal are due to be acquired and used for processing of the raw materials in Surkhet. To date they have not been acquired due to program delays described above. They will be acquired within the next reporting period.

#### **4.8 Cold Store**

These are for longer term storage of fresh fruits and vegetables as well as processed food such as juice and jam produced following training earlier in the year. To date Humla's cold store has been constructed in Dapka village near the RC, and a mini small version at HPC RC in Baragaun. A larger store is planned for Surkhet but has not been constructed yet due to program delays as described above.

#### **4.9 Solar drier**

Manufactured solar driers for Humla and Surkhet were due to be acquired from Kathmandu in the last reporting period, but due to the delays described above this was not possible. This activity has still not been implemented due to the project backlog, and has been moved to the next reporting period. It is planned to start this over Winter to have the driers in place for Spring. Meanwhile a smaller home-made version of the solar drier is also planned, using a frame covered by plastic, for each household. For this, plastic was shipped to Humla and trials to create the most effective design are under way. Originally the plan was to construct a community drying polytunnel, but following more discussions with villagers household-unit driers are being tried and tested that each household can construct and use.

#### **4.10 Apple drying Humla**

This project involves acquiring a machine to make apple rings, which can then be dried in the solar driers. As the solar driers have not yet been acquired (see 4.9) this has also been delayed and will be implemented in the next reporting period along with the solar driers. However as the apple season in Humla is in September and October there will not be any processing possible until then.

#### **4.11 Juice/Jam making**

Further trainings have been provided in Surkhet and Humla for 35 farmers (11 women, 24 men).

#### **4.12 Biogas**

This program is researching a new type of biogas system that is made of a heavy duty polyvinyl bag in which vegetable waste and animal manure is digested to produce methane cooking gas and high quality fertiliser as a by-product. HPC plans to establish 2 domestic sized systems in Surkhet and Kathmandu (Sunrise Farm) as pilot research units. IFAD's ASHA project is also establishing 5 units, while the Resilience Through Recovery (RTR) project in Nuwakot and Kavre is establishing 2 units and private NGO Herb Nepal 1 unit. The units were imported from Kenya in April but due to import difficulties were impounded at customs for 5 months. Only recently has it been possible to release the units, and now the training and implementation will happen in November/December. The activities will be described in the next report.

#### **4.13 Solar electric**

In Madana VDC of Humla, **53 households (173 women & 173 men)** have been provided with solar lighting sets comprising solar panel, battery and 3 LED lights. Because of the

increased rates of equipment following the Indian blockade the price had increased by 35% over the original quoted cost. As a result only 53 out of the target of 81 households could be supplied in Satti, Lotpata and half of Dalitbada and Bhadauda villages. To compensate, the local VDC has provided subsidy of 1000/- per household to support transport of the sets from the road head to the villages. Of 53 households, 12 are dalit (low caste). The remaining houses will be supplied over the next 2 years.

## **CAPACITY BUILDING PROGRAM**

### **5.1 Permaculture Design Course (PDC)**

Though not in the original plan, this activity has been included this year due to the high demand for barefoot consultants, so it was decided to run PDCs focused on barefoot consultant capacity building.

The first part of the PDC was held over 7 days in May at the Resource Centre in Baragaun, Surkhet. This section focused on building blocks of design including problems' identification, soil and water management, cropping patterns, pest management and agro-forestry. In October HPC held the second part of the PDC for 6 days, to make 13 days total. This section of the course focused on design, with participants being led through a design process with the following elements:

<b>Stage</b>	<b>Elements</b>
Survey	Observation of land (soil, water, climate, slope, aspect, biodiversity, erosion, etc.) and client (vision/aims, resources, constraints, etc.)
Analysis	Assessment of functions needed; systems and elements to fulfil functions
Design	Placement of systems and elements to fulfil functions; integration of systems so needs/inputs are provided by outputs of other systems
Implementation	Plan of how the design is implemented including inputs, priorities and sequence of work over time
Maintenance	After implementation, how the design is maintained over time including inputs and outputs
Evaluation	On-going monitoring and evaluation of whether the design is achieving goals
Tweak	Changes and modifications to the design and implementation as required

#### **5.1.1 PDC Follow-up**

A short workshop was held in Surkhet for some of the participants from last year's PDC. This was aimed at reviewing understanding and application of the design process using permaculture principles, and providing further support and advice to continue further learning. The participants also had a chance to review their learning through observing the current PDC (see above) and providing support and advice to the new PDC groups as they worked through their designs.

#### **5.2 Trainers' Training**

This activity was due to be held in the previous reporting period but due to the SWC registration delays and Indian blockade was postponed and held in October. The training, delivered by Mr Gopal Khadka of NEST Nepal in Pokhara, has been adapted as an advanced course and designed specifically for the benefit of barefoot consultants to enhance their capacity to train in other villages. Key contents included:

- Learning principles and learning domains
- Training approaches
- Training cycle
- Participatory training methods and materials, and their use to teach knowledge , skill and attitude
- Designing Session plans
- Facilitation skills (presentation and facilitation skills)
- Training Need Assessment (TNA) (tools and practice)
- Training Curriculum Design
- Micro session presentation and Video watching/feedback
- Qualities needed to be professional trainer
- Training Monitoring, evaluation and Follow up

In total **21 staff and BCs** participated in the 7 day course, (4 women 17 men), comprising 5 staff & 7 BCs (6 men & 1 woman) from Surkhet and 3 staff& 5 BCs (2 men & 3 women) from Humla.

### **5.3 Organisational development**

A further organisational training was held in Surkhet provided by Narat Sharma of Saharkarmi Samaj in the previous reporting period. HPC board (6) and staff (9) participated in the 5 day workshop reviewing organisational policy, strategies and workplan. A further training was delayed from the current period and will be held in the next 2 months.

### **5.4 Farmers Field trips**

This was detailed in the previous report

### **5.5 Farmer-Farmer extension**

Workshops are held quarterly to facilitate exchange of experience between farmers' groups, BCs and staff.

### **2.6 Barefoot Consultants' Workshop**

This was held in Baragaun in October when BCs from Humla and Surkhet came together to review activities over the past 12 months, and to further develop methods and approaches to working with organisations and communities as a BC. This is still a relatively new approach developed by HPC to be able to share its skills beyond the direct project area, and so needs constant review, evaluation and feedback systems to develop an effective system through which BCs can deliver their skills while also receiving additional support and advice from HPC. In total 10 BCs attended the workshop, with 3 from Humla and 1 from Surkhet unable to attend. Details of BCs are given in **Annex B worksheet 6**.

### **5.7 Rice Breeding training**

This program, involving training farmers how to breed their own varieties of rice according to desired traits under local conditions, had been delayed from the previous reporting period, and as the season for early rice establishment has now passed can only run from the start of the season. An introductory workshop is now planned for December, where the concept will be introduced and a detailed program made to start in May next year.

### **5.8 Farmers' Festivals**

In Humla the second Farmers' Festival was held over 2 days in September, nearby Dapka RC. About **1600 men, women and children** from surrounding villages attended over the 2 days. Based on the model of HPC's festival in Surkhet, they participated in local song and dance, theatre and sports competitions. A farm produce exhibition comprising **68 exhibitors** of several hundred types of vegetable, fruit and livestock produce, and local handicrafts was also displayed. Prizes were awarded in each sector.

### **5.9 Cultural Program**

HPC has a program to develop theatre and dance routines to tour villages providing educational entertainment about issues related to the program – both problems and solutions. As part of this initiative, in Humla 11 members (9 men and 2 women) of 7 HPC groups created a play about violence against women & children and displayed it firstly for a practice run in Dapka village (site of the RC) and then to around 200 people at Madana secondary school.

During the traditional **Teej festival** in Humla in August, HPC also facilitated a cultural event where 5 groups participated in a dance program and a further 5 groups participated in a quiz on agriculture and permaculture issues. A total of **700 people** attended the 1-day event.

### **5.10 Video film making**

HPC staff have been practicing with their video making skills and have produced draft videos of additional videos: agro-forestry, liquid manure and green manures,

Peace Corps volunteers have also been working with HPC to create generic educational videos using HPC staff as silent actors with professional voice over. These will be released as internet downloads soon.

### **Review and Evaluation Meetings**

Two review and evaluation meetings were held in Humla and Surkhet where group representatives and staff met to review activities over the past 12 months. Groups described a summary of activities they had implemented over the past 6 months, and for the year were asked: what has gone well, and what has been challenging.

### **Community contributions**

Community contributions to activities in Surkhet and Humla show a total contribution of **1215 person days** with a monetary value of **NRs 364,500/- (GB£2,430)**. Activities include maintaining community infrastructure (paths, bridges, water courses, mills, schools and community learning centres), and direct contributions to HPC programs such as portorage of equipment, and construction of cold stores.

### **SWC Evaluation**

Following all the delays due to registration procedures with Nepal Government's NGO monitoring body, the Social Welfare Council (SWC), an evaluation team finally visited HPC in Baragaun in July 2016. HPC had to pay back-dated registration tax and complete travel and daily allowance costs for the team (even though it has no budget for this).

### **HPC Website**

HPC's website, [www.himalayanpermaculture.com](http://www.himalayanpermaculture.com) was created February 2009. Up to the time of this report (Oct 2016), over **130,000** hits have been recorded.

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