Himalayan Permaculture Centre



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

***Building Livelihoods for Household and Community Resilience***

**6-month Report**

**Date of this report: December 2021**

**This report is dedicated to two great heroes of individual, community and ecological abundance and regeneration:**

* [**Sunderlal Bahugana**](https://en.wikipedia.org/wiki/Sunderlal_Bahuguna) – activist and spokesperson for the [Chipko movement](https://en.wikipedia.org/wiki/Chipko_movement) (passed in May 2021)
* **Ammar Bahadur Sarki** – from Surkhet, carpenter, weaving-trainer, water engineer, social activist and gardener with Himalayan Permaculture in Jajarkot, Humla and Surkhet from 1989 (passed in Nov 2021)

**RIP, in the knowledge that your legacies will endure and thrive**

**Introduction and background**

In this report, details of activities and achievements over the current reporting period (May-Oct June-November 2021) are detailed. This would have been the final report of this 3-year phase, but due to implementation delays caused by the Covid epidemic, HPC has applied for a 12 month extension to implement its remaining activities from December 2021 to November 2022.

The on-going pandemic is still affecting the program and though the country/region is not in lockdown, there is no guarantee that one will not again be re-imposed. At present, however, activities are continuing with caution and the main problem is needing to catch up with project spending that has been affected over the past 2 years in particular. HPC is extremely fortunate in having an understanding donor and has applied for a further 12 months extension to complete implementation.

Meanwhile, unseasonal weather in October has affected an otherwise reasonable summer crop harvest, when heavy and persistent rainfall fell on newly harvested crops, causing a significant proportion to germinate/rot in the fields, as well as causing serious landslips affecting fields and roads. Farmers are questioning why the government weather forecasting system had not warned them of the coming weather (there was at least 5 days potential warning) that would have allowed them to make preparations, either by postponing harvest, or by speeding up crop processing and covering of winnowed crops. In some areas hail has seriously affected productivity not only of grains but also tree fruit.

**Working Areas**

A summary of groups’ names, locations and demographics is given below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Households** | **Women** | **Men** | **Total** |
| **Surkhet** | 2 municipalities, 12 villages | 206 | 578 | 628 | **1206** |
| **Humla** | 2 municipalities, 19 villages | 568 | 1724 | 1816 | **3540** |
| **Total** | 4 municipalities, 31 villages | **774** | **2302** | **2444** | **4746** |

These figures represent the demographics of the villages that have been registered with HPC as participating villages. They include 2 new villages in Surkhet and 2 villages in Humla that have started participation, where HPC staff visit for surveying, and barefoot consultants have started to work (usually on training).

**Activities**

1. **FOOD SECURITY PROGRAM**

**1.1 Resource Centers**

The Resource Centres (RCs) continue to be at the heart of HPC's program. They are designed as working demonstration farms with training facilities, able to host full residential courses as well as an office to support the project's administration, logistical and management functions. Both farms are equipped with solar power to aid these functions.

The Surkhet RC is HPC's headquarters and is purpose built, on land owned by the organisation. It is a new farm, established over the past 2 years.

The RC in Humla is a rented office situated on farmland belonging to 8 different households, of which 7 households comprise a member that has completed a permaculture design course (PDC).

The RCs have continued to provide training over the past 6 months: residential (3-5 day) and short technical farmers’ trainings, women’s health and capacity building trainings, as well as hosting farmers’ exchange meetings and other planning, review and evaluation workshops.

Production of agricultural crops at the RCs, and resources such as seed and seedlings for distribution to village groups, are monitored to assess productivity as a result of climate change as well as interventions in management according to permaculture principles. On-going production is matched by development of the farms with continuous planting of new systems for increased productivity. At the same time one of the goals of HPC is that every farm becomes a resource centre, providing increased food security and improved livelihood opportunities with minimum input, whilst also providing demonstration and educational resources to those wishing to achieve similar aims.

**RC production – Surkhet & Humla**

In this period at the Humla RC a total of **69kg** of 21 varieties of vegetables, **824kg** of 8 types of fruit and nut, and **8.8kg** of 8 varieties of vegetable seed have been produced. In addition, **265** fruit, vegetable and herb seedlings have been distributed.

Meanwhile at the Surkhet RC in Tadhiket near Mavidada village, in just its 2nd year of operation, a **healthy 586kg of vegetables** (mainly pumpkin) have been produced over the past 6 months, and **100kg** of tree and grass fodder. The farm is still in its establishment phase, with 182 new fodder and multi-purpose trees, shrubs and grasses being established, along with 17 fruit trees and shrubs, and 27 medicinal herbs.

**1.2 Farmers’ demonstrations**

To back-up demonstration of the diverse farming and household techniques and training in their establishment and management, HPC supplies various basic tools to farmers’ groups enabling them to implement activities in their villages. These include grafting knives, secateurs, irrigation pipe, sprinklers and plastic for hot beds and small polytunnels. From now on these tools will be made available for farmers to purchase from the Farm Tools Distribution Centres (see below, section 4 Livelihoods) that have been set up over the past 2 years.

As a result of demonstrations at the RCs and in farmers’ fields, and various training opportunities at the RCs and in situ in the villages (see below 1.3), groups are involved in implementing various types of practical work in their houses and fields to increase household resilience and self-reliance. A summary of all practical work carried out in the groups over the past 6 months is as follows:

**Farmers making integrated demonstrations**

|  |  |
| --- | --- |
|  | **June-November 2021** |
| **Practical Activities** | **Surkhet** | **Humla** | **Total** |
| **No: households implementing** | 206 | 649 | **855** |
| House hygiene | 174 | 642 | **816** |
| Stove | 110 | 641 | **751** |
| Toilet | 176 | 631 | **807** |
| Grinder | 176 | 638 | **814** |
| Water pot | 176 | 641 | **817** |
| Hay box | 0 | 1 | **1** |
| Sweepings | 108 | 622 | **730** |
| Waste water management | 115 | 628 | **743** |
| Plate/pot rack | 168 | 592 | **760** |
| Compost | 80 | 223 | **303** |
| Fodder trough | 11 | 218 | **229** |
| Salt lick | 4 | 109 | **113** |
| Kitchen garden/vegetables | 165 | 448 | **613** |
| Mulching | 34 | 4 | **38** |
| Liquid manure | 27 | 47 | **74** |
| hot bed | 1 | 0 | **1** |
| Leaf pots | 6 | 0 | **6** |
| Home nursery | 84 | 108 | **192** |
| Fruit nursery | 29 | 0 | **29** |
| Air nursery | 6 | 2 | **8** |
| Off season onions | 0 | 2 | **2** |
| Grafting | 6 | 0 | **6** |
| Budding | 0 | 33 | **33** |
| Top grafting | 2 | 16 | **18** |
| Air layering | 25 | 2 | **27** |
| Pot irrigation | 5 | 29 | **34** |
| Orchard | 96 | 107 | **203** |
| Agro-forestry | 73 | 8 | **81** |
| SRI | 14 | 31 | **45** |
| Green manures | 4 | 445 | **449** |
| No till | 0 | 0 | **0** |
| Bamboo cuttings | 0 | 0 | **0** |
| Improved plough | 176 | 162 | **338** |
| Fruit tree Pruning | 50 | 0 | **50** |
| Greenhouse | 0 | 0 | **0** |
| Biomas compost | 49 | 0 | **49** |
| Double digging | 1 | 1 | **2** |
| Urine collection & use | 5 | 89 | **94** |
| Seed production | 167 | 34 | **201** |
| Fruit planting | 121 | 22 | **143** |
| Water Filter | 161 | 271 | **432** |
| Jam/juice making | 0 | 22 | **22** |
| Solar drier | 10 | 15 | **25** |

Most of these activities are illustrated in the [Farmers’ Handbook](http://permaculturenews.org/2010/01/06/farmers-handbook/), a key training tool used by HPC.

**Demonstration farmers**

While all households participate in some way inside and outside of the house, close by in kitchen gardens, or further in fields and orchards, there are levels of implementation of techniques that vary according to farmers’ needs, commitments, resources, and constraints. HPC identifies 3 levels of demonstration farmer, according to the extent to which they have improved their traditional practices with the addition of techniques to utilise local resources, increase productivity and/or decrease cost of production. Current numbers of farmers at each level are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Category 1** | **Category 2** | **Category3** | **Total** |
| **Humla** | 30 | 35 |  | **65** |
| Surkhet | 11 | 17 | 12 | **40** |
| **Total** | **41** | **52** | **12** | **105** |

**Fruit and multi-purpose tree, shrub and grass production**

The summer has seen continued planting of fruit and multi-purpose tree and shrub species, mainly produced in local villages by member farmers following training. Sometimes new varieties are acquired from outside of the area, for example avocado and “super napier” (an improved variety of the Napier that farmers have been planting for years). Some farmers’ groups are registered with the district agriculture office and as such can acquire other varieties at subsidised cost. In May HPC was able to facilitate 3 groups to obtain Turkish walnut seedlings the government had imported and over 50 of these are now planted in various orchards in 6 villages in Surkhet, and will be a future source of scion wood to produce locally, as select farmers already have the skills to graft walnut.

**Grafting and budding of fruit trees**

In Humla a massive **24,300 grafted fruit seedlings** of 9 varieties of fruit tree are successful and will be ready for distribution in the next year or 2, including 22,000 apple seedlings. In the past 6 months nearly **700 trees** have been grafted and budded in village nurseries, including 230 almond, 242 walnut and 100 peach. A further **149 seedlings**, mainly citrus varieties and pomegranate, have been produced by air-layering. There are a further 6,200 cuttings of various fodder trees and grasses in nurseries, awaiting planting either in the winter or next monsoon. Finally, over 82,000 rootstock seedlings are growing in new nurseries and will be ready for grafting over the next 2 years, including over 50,000 apple and nearly 25,000 almond root stock. These are being grown in response to increasing demand from villages mainly within Humla district.

**Planting**

During the monsoon **3376 fruit trees and shrubs** have been planted in farmers’ fields and orchards, including over 1650 lemon, 377 banana, 363 pomegranate, 163 mango and 157 kiwi fruit. Other species include walnut (including from Turkey, see above), many types of citrus varieties, Asian pepper, guava, sugar cane and passion fruit.

In addition to fruit, other products and benefits including fodder, fuel, timber, medicines, biomas, soil conservation, pollinator food and biodiversity habitat are sought from the integrated orchard and agro-forestry plots. A total of **17,253 seedlings** have been planted over the monsoon. Of this Napier (11,200), Asian pepper (3,600) and mulberry (1,300) are the most commonly planted. Other species include various *Ficus* planted for fodder, broom grass, *Melia,* bamboo, lemon grass and willow.

**Pruning of Fruit Trees**

As fruit trees grow, many – but not all – need pruning to remove dead or diseased branches, maintain shape, air movement and improve fruit size. In this period **548 trees** have been pruned in Surkhet, mainly citrus varieties but also plum, peach, pear and pomegranate.

**Fruit production**

Finally, once stages of seedling propagation, planting and after-care (pruning) have been completed, fruit is harvested. In this period some **77,429kg** of fruit production has been recorded, including over 16,500kg of plums, 10,000kg pears, 7,000kg mangoes, 5,100kg of peaches, 4,500kg apples, 1,000kg each of papaya and oranges, and over 3,000kg of other citrus fruits.

**SRI Rice Farming**

There are currently 46 farmers practicing SRI – the System of Rice Intensification – in Surkhet and Humla. Farmers noted that in the heavy unseasonal rains that struck north India and Nepal in October the fields under SRI were more resilient to flooding and lodging (being blown over) than conventionally planted rice.

**Community Funds**

Groups in Surkhet and Humla continue to self-manage and grow their micro-credit funds, providing loans to group members for various purposes such as paying for school fees, food security, health services and starting local businesses. This period loans of **1,009,660/-** have been disbursed to **154 households.** This period's audit is summarised below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Loans given** | **Expenses** | **Cash** | **Total NRs** | GB£ |
| Humla | 323,000 | 15,910 | 87,417 | **426,327** | £2,665 |
| Surkhet | 686,660 | 133,958 | 1,930 | **822,548** | £5,140 |
| **Total** | **1,009,660** | **149,868** | **89,347** | **1,248,875** | **£7,805** |

**1.3 Farmers’ Training**

Several types of farmers' training have continued over the summer, including residential 5-day integrated trainings, shorter mobile trainings in livestock health, women's health (see below 2.1), and a plethora of short technical trainings running from 1 hour to a day. Trainings are now delivered by both HPC staff and barefoot consultants. A training summary is below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Surkhet** | **No: Trainings** | **Days**  | **Participants** |
| **Women** | **Men** | **Total** |
| Residential Farmers' training  | 1 | 5 | 6 | 10 | **16** |
| Mobile Farmers' Training | 1 | 3 | 9 | 1 | **10** |
| Technical Trainings | 14 | 4 | 45 | 32 | **77** |
| Blacksmith training | 1 | 3 | 0 | 5 | **5** |
| Organization development | 1 | 3 | 5 | 7 | **12** |
| PDC | 1 | 13 | 4 | 11 | **15** |
| **Total** | **18** | **31** | **69** | **66** | **135** |
| **Humla** |   |   |   |   |  |
| Residential Farmers' Training | 1 | 5 | 9 | 8 | **17** |
| Mobile Farmers' Training | 5 | 15 | 83 | 32 | **115** |
| Biofertilizer training | 1 | 3 | 9 | 4 | **13** |
| Seed production training  | 1 | 3 | 8 | 5 | **13** |
| Jam-juice making training  | 1 | 1 | 9 | 7 | **16** |
| Technical Trainings | 32 | 14 | 52 | 48 | **100** |
| **Total** | **41** | **40** | **170** | **104** | **274** |
| **Total all areas** | **60** | **71** | **239** | **170** | **409** |

The farmers’ training in Surkhet included 4 participants from the villages of Linjho and Puru in a remote region of Dhading district, where barefoot consultants from HPC are establishing apple orchards with locals under a project run by KAAA. The villages were largely destroyed or damaged in the 2015 earthquake that hit Central Nepal.

**Slide and Film shows**

Slide and film shows are provided as part of trainings and as community events at RCs and in villages, using both slide shows and videos produced by HPC as well as by external groups. In this period 21 separate shows have been given to **316 villagers** and training participants.

**1.4 Livestock**

HPC's approach continues to focus on training and demonstration, with support given to improved breed provision and breeding, livestock health and stall management.

**Livestock Health Training**

Training is given by Barefoot vets in basic livestock health and diagnosis, diet, stall hygiene and breed improvement. In this period 1, 3-day mobile training was given in Bahulyna village (Himali Namuna group) in Humla for 5 women and 14 men.

“Barefoot vets” also provide diagnosis and treatment of various livestock ailments including worms, skin parasites and digestive problems, as well as castration of bulls and male goats. A summary is given below**.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Village | **Castration** | **Worms** | **Skin parasites** | **Other** | **Total** |
| Ox | Goat |  Ox/Cow | Sheep/goat | Pig | Chicken | Buffalo | Sheep/goat |
| Total Surkhet | 5 | 57 | 41 | 247 | 0 | 67 | 19 | 33 | 103 | **572** |
| Total Humla | 13 | 0 | 5 | 51 | 0 | 0 | 0 | 144 | 1 | **214** |
| **Total** | **18** | **57** | **46** | **298** | **0** | **67** | **19** | **177** | **104** | **786** |

**Livestock stall management**

One member from each group is supported to build an improved stall for trough feeding and easier manure and urine collection. To date, 4 stalls have been completed in Gurung Gaun, Pakhapani, Mavidanda and Salkharkha villages. HPC's input involves a NRs 5000/- grant that covers purchase and transport of the cement used to make the hard floor and trough. The rest of the investment, involving acquiring sand, gravel and all labour costs are met by the farmer, estimated at around 60% of the total cost. In Humla 3 households have been provided support to improve their livestock stall.

**1.5 Irrigation**

In Surkhet irrigation benefits have been incorporated into the Pakhapani integrated mill, from which 3 households are benefitting for irrigation. In Humla 2 micro-systems have been constructed by providing pipe to join from an existing pipeline in Chihi and Satthi villages, for 4 households (9 women and 12 men).

**1.6 Appropriate Technology**

This program aims to test and demonstrate various labour and resource-saving and/or product improving devices in its working area, with a view to further distribution when the technologies are seen to be appropriate. In this period a rice/wheat thresher has been purchased for groups in Surkhet and will be based at the Resource Centre. In addition, 3 maize de-hullers have been distributed. Meanwhile in Humla, 8 maize de-hullers, 6 sprayers, 6 rotary cutters and 2 juicing machines have been distributed as prizes to demonstration farmers.

1. **HEALTH PROGRAM**

**2.1 Women’s Health Program (WHP)**

HPC’s Women’s Health Program works around 3 main activities: training, health camps and networking. Women’s Health Training (WHT) takes place through residential 5-7 day trainings at the resource centres and mobile 3-day courses run in the villages. Short half to 1 day trainings and workshops are also provided.

Women’s Health Camps (WHCs) have taken place each year in both districts and involve a trained team of specialists providing diagnosis, counselling, treatment and referral services as well as educational classes to attendees of the camps. There has been no WHC in this period.

The Women’s Health Network (WHN) involves meetings between women active in the trainings and camps where they discuss issues, develop strategies and plan events including the WHTs and WHCs.

**Women’s Health Training (WHT)**

At the Resource Centre in Surkhet a 5-day Women’s Health Training was held for 25 women participants, and a leadership training was provided to 26 women members of the Women’s Health Network (WHN). In Humla these trainings plus a gender training were provided to 12 women and 9 men. The WHN Leadership training subjects include:

|  |  |
| --- | --- |
| * What is a Women's Health network (WHN)?
 | * Prevention of VAW (violence against women)
 |
| * Benefits of a WHN
 | * Caste discrimination
 |
| * Needs of the WHN
 | * Child protection
 |
| * How to maintain the WHN
 | * Future vision
 |
| * Functions of the WHN
 | * Role of permaculture in WHN
 |
| * Advocacy
 | * Creating an action plan
 |

**Menstrual pad training**

Prior to this reporting period women's groups in all villages had been provided with training in making home-made menstrual pads. As a follow-up to this, a training has been provided to 2 women (1 each in Surkhet and Humla) along with staff to make the pads on a commercial basis, with plastic poppers and popper-fitting machine also provided, along with a NRs 5,000/- start-up grant. From Surkhet Mrs Bina Gurung was selected to make and market the pads, she has started to produce them but has not yet started sales. In Humla, Ms Jankala Rokaya was selected and has started to produce pads. Next comes the job of the Women’s Health Network in increasing awareness about the pads and where they can be acquired.

**Women’s Health Network (WHN)**

WHN network members continue to support activities in the WHP. Groups in both districts meet to review activities and plan new ones. They also provide support in trainings and health camps. As such, they remain active in supporting the activities of HPC, whilst also building their own capacity to lead in women’s health and rights issues, thus further benefiting the women in the region.

**Teej Festival**

Once a forbidden activity for women, HPC helped local women's groups to resurrect the traditional Teej festival several years ago and it is now a regular event held during August. Women from all HPC's groups attend and dance, and women from outlying village have also started to attend.

* 1. **Drinking Water**

In Sano Khaltakura village (Jagaran group) **15 households** have been provided with 500L water tanks to collect and store water from local springs. Each household is contributing NRs 1,000/-, and low-income households are able to taka a loan from the local micro-enterprise group (see below) to help with this. In Pakhapani (Janajyoti group), 2 households were provided with pipe to collect drinking water from an existing pipeline.

1. **EDUCATION PROGRAM**

**3.1 Practical Literacy Classes**

This activity involves running practical literacy classes in Humla. The PLCs combine Freirian literacy principles with HPCs unique collection of practical activities based on the Farmers’ Handbook (FHB), an easy-to-read compendium of over 40 farmer-friendly methods to increase domestic household and farm productivity. PLC participants learn letters and words, and later sentences, that form topics from the FHB such as stove, nursery, toilet, hygiene, diet, fruit tree grafting, etc. At the same time as developing their literacy skills, they also apply the methods in their own houses and fields.

**Two PLCs** in Humla are currently in process and will end in November, with **38 villager**s enrolled (all women).

**3.2 Schools’ Program**

HPC has functional relationships with schools in its working areas and provides infrastructure support, resources and training for creating productive gardens in school grounds.

**Schools’ Planting**

In Surkhet, at Laligurash Primary School in Mavidada village (close to the Resource Centre) HPC has provided seedlings and technical support for the planting of **128 fruit trees** (mainly citrus varieties) on newly acquired school land. Parents of the school children helped with the land clearance and planting. A further 25 trees were planted at Gokarna Adharbhut (High) School in Pakhapani. At Ganesh Pra.Vi. (Primary School) in Thuko Khaltakura perspex sheeting has been provided too fit in the roof to provide more light in the classrooms, while technical assistance has been provided to prune trees planted on the land.

Meanwhile in Humla, 49 saplings have been planted around the grounds of Madanadev Middle school and the local Health Post.

**Schools' Infrastructure support**

In Surkhet the Sagarmatha Pra.Vi. primary school in Khalikharka village has been painted using natural paints, a technique developed by BC Hommaya Gurung to enable natural clay-based paints to be used on cement plastered walls.

In Humla HPC has provided 16 benches for Kailash Primary school in Saathi village as well as helped improve the path to the school. It has also provided painting of educational illustrations, songs, Nepali and English alphabet, times' tables and "wise" quotes (e.g. from Bill Mollison, permaculture co-founder) on inner and outer walls at Kailash Primary school and Madanadev Middle school.

**Curriculum development**

As part of a partnership with Kopila Valley School in Birendranagar, the district capital of Surkhet, HPC has been developing a vocational curriculum to teach to students. So far, lessons have been produced for classes 1 to 10 (ages 7 to 16) covering 10 practical subjects:

|  |  |
| --- | --- |
| * Balanced diet
 | * Fruit nursery
 |
| * Kitchen garden
 | * Compost
 |
| * IPM pest control
 | * Seed saving
 |
| * Mulching
 | * Mushroom growing
 |
| * Livestock
 | * Fish farming
 |

Each class is designed to last 45 minutes and has varying degrees of complexity, depending on the age group. Further lessons are being developed for beekeeping, microclimate, permaculture history and permaculture ethics and design principles.

**3.3 Education materials**

In this period 100 more copies of the [Farmers’ Handbook](http://permaculturenews.org/2010/01/06/farmers-handbook/) (FHB) have been distributed to groups in HPC working areas. The FHB continues to be one of HPC's main training tools, and is also distributed to other organisations for their own use.

1. **LIVELIHOODS PROGRAM**

To build truly regenerative and resilient villages HPC has developed methods and approaches to strengthen food sovereignty and security, community and individual health, and both child and adult education. To add to these it is researching and developing regenerative enterprises based on local resources and skills, that can add income and livelihoods to create homes and communities that attract people to stay, live and work rather than seek meaningless and often dangerous employment overseas. It is currently running the programs described below and is always looking for ways to strengthen and diversify its approach.

A survey of **40 demonstration farmers** and households in 9 groups from Surkhet has shown that a total of NRs **3,249,540/- (£21,664)** has been earned as a direct result oftechniques taught by HPC. These include income from crops such as cardamom, garlic, vegetables and fruit (fruit seedlings’ sale as well as fruit), livestock products (bees, meat, dairy and sale of livestock) and jobs such as training (as a barefoot consultant), blacksmithing or mill operation. This is showing that gaining a meaningful livelihood is possible with improvements to farming systems involving diversifying and integrating systems and enhancing local biological resources organically. When surveyed, farmers shared that the extra income had been used for purposes such as their children’s education, building a house, buying new land, medical expenses and being able to provide loans to others.

**Beekeeping**

Previously, beekeeping trainings have been provided in Humla and Surkhet in construction of framed Newton hives and the popular “Jumla Top-Bar” hive, which is the traditional hollowed-out log hive adapted to take frames. This is more favoured by farmers especially at high altitudes because they are thicker and thus warmer for the bees during the winter. There have been no trainings in this period but farmers are keeping bees in a total of **58 improved hives** and 131 traditional hives, from which honey production has been assessed at **431.5kg** with a market value of **NRs 345,200/-** (about U.S. **$3,000**).

**Vegetable seed production**

This program aims to train farmers in various species’ seed production, focussing on herbs and vegetables, and facilitate sale and exchange within HPC groups as well as with other villages.

In the current period farmers in Humla have produced **55kg** of 14 varieties of vegetable seed including coriander, broadleaf mustard, aubergine, chilli, onion and turnip. In Surkhet **204kg** of seed has been produced of 13 varieties, including coriander, broadleaf mustard, beans, fennel and radish.

**Mills**

In Surkhet the canal leading to the integrated mill in Pakhapani village (Janajoti group) has been completed in this period, involving further purchase of cement and plywood to make the cement form. This mill is used by a total of 10 villages, including 3 villages outside of HPC's working area. Another existing mill is currently being improved in Salgadhi village (Pragatishil group) involving cementing 70 metres of canal, which will enable the mill to be used throughout the dry season, and will be completed in the next period. A further 3 mills have been surveyed for maintenance in the coming period.

**Herbs development stage 2**

Planting of herbs for local and potentially commercial use has continued. In Surkhet and Humla, **786 new herbs** of 14 different species have been planted in kitchen gardens and orchards of village group members.

**Weaving & Fibre Processing**

Equipment and raw material for spinning nettle yarn has been acquired, this program was halted due to lockdown and is due to commence in the next period.

**Solar drier**

Carpenters in Surkhet and Humla are now able to construct solar driers for use by a group of households, using local timber with imported tin and mesh. They are using them to dry various food such as sliced radish, apple, tomatoes and other vegetables, as well as pulses and fruit. In this period 3 new solar driers have been distributed in Humla, while in Surkhet a whole solar drying room has been attached to the new Resource Centre, so far used by 3 local households to dry maize, wheat and vegetables.

**Apple drying Humla**

Apples harvested in Humla have been dried in solar driers. The problem facing farmers is that the season apples are ripe is in the monsoon (August-Sept), when sunny days needed to dry fruit are rare. Apples that can be kept for a month will usually see the sun of the post-monsoon period and be able to be peeled and dried with a hand-operated peeler provided by HPC. This year however unseasonal heavy rain fell in late September and early October, making drying difficult.

**Juice/Jam making**

In Surkhet 5 and Humla 2 hand-operated juicing machines have been distributed.

**Biogas**

Up to 5 more biogas units are planned but have been delayed due to lockdowns, and will now be completed in the next period. The government is also providing subsidy to this activity.

**Community agro-vet centre operation**

Medicines have continued to be distributed from the centres in Surkhet and Humla. Barefoot vets have now stopped providing this as a free service, and villagers are required to purchase the medicines from the centres. This allows a fund to be generated for purchase of future medicines. In this period 42 households in Surkhet and 17 in Humla have benefitted from being able to acquire medicines for livestock treatment, with **5,652 livestock** treated for a range of problems including worms, external/skin parasites, digestive problems and wounds.

**Farm produce and distribution centre**

This activity aims to set up a cooperatively run centre to collect farm produce (including under vegetable production and chicken rearing partnerships) from member villages and organise their transport and selling at local town markets after grading and quality control. It has been delayed due to lockdowns but now arrangements are underway, involving setting up cooperatives to facilitate this process, which is linked to the capacity building training program for business and marketing and the PGS organic certification system (see section 5 below).

**Farm tools community sales centre**

Farm tools have been purchased and sales/distribution has started from the centres in Surkhet and Humla, and income generated for re-purchase of materials. Materials are purchased at a wholesale rate and sold at cheaper than if purchased on the nearest bazaar (which may be a day’s walk/bus travel away). The centres are opened 1 day per week, when farmers are able to purchase farm tools, such as picks, spades and other digging implements, pipe, sprinklers, pruning saws, secateurs, files, sharpening stones, raw iron, seed containers, nails, etc. The opening of the Centres has been affected by Covid and lockdown, and in the current period **NRs 32,757/- worth** of goods have been sold, with **40 households** benefitting from the Centre. Local blacksmiths that have taken HPC’s blacksmiths’ training are also able to buy raw iron there to fashion into tools for sale.

**Local chicken rearing partnership**

In Surkhet new materials to make chicken coops have been distributed to low-income farming families in 5 groups. In the previous period 6 farmers had received materials. To date the farmers involved have a population of 49 cocks and 62 hens including 31 with broods totalling a further 178 chicks. Of the 11 participating farmers 10 have earned a total of nearly **NRs 60,000/-** from the sale of over 90kg of meat. In Humla, 4 low-income households were provided with start-up materials and together have earned **32,500/-** from sales of meat and a further **5,400/-** from sale of eggs.

**Sewing training**

In Surkhet 6 women had completed their training in the previous period. Of these, 3 women have been recorded as earning NRs 3,050/- from their new skill, sewing new items of clothing and repairing old clothes.

**Blacksmith training**

In Surkhet previously 6 farmers have been provided training in basic and further advanced blacksmithing methods, with needs based on an absence of traditional skills, and materials (tools) being expensive and not available locally. New earnings from this work have been assessed and show that 4 out the 6 (one has left for India and one has been ill) have earned a total of **NRs 97,460/-** from making new and repairing old tools over the past 6 months. In Humla 5 farmers were provided with the same training 1 year ago and over the past 12 months, 3 of them have been able to earn a total of **68,000/-** from making new tools and maintenance of old tools. The other 2 said their income had been entirely in the form of grain (a traditional way of craftspeople earning an income). In this period a further 5 farmers have been provided the basic training at the RC.

**Leatherworking training**

In Humla 5 villagers that had received training in leather processing last year have been able to repair 39 pairs of shoes for local people, earning a total of **NRs1,950/-**.

**Furniture making training**

This training was started in the previous period and while extra training is planned there has been none over the past 6 months. Meanwhile 4 farmers participating have been assessed and have been able to earn a total of **NRs 31,500/-** since taking the training, making items such as window/door frames, drawers, racks/shelves and bed frames.

1. **CAPACITY BUILDING PROGRAM**

**Permaculture Design Course (PDC)**

A 12-day PDC was held at the Surkhet resource Centre in September, where 14 (4 women and 10 men) farmers attended. The first part focussed on introducing the concept of permaculture, looking at definitions, ethics, principles and design building blocks such as soil, climate/microclimate, water, livestock, trees and agroforestry, kitchen gardens, pest management, composting, etc. The second week focussed on the design process, with participants forming groups to practice design on selected areas of farmland. The PDC is specifically for those farmers aiming to become barefoot consultants, having successfully implemented a variety of techniques in their own households and communities, by giving them further design skills to increase their capacity to train others.

**PDC Follow-up**

A PDC follow-up workshop was held in Humla, where 20 ex-PDC participants shared their experiences of applying the knowledge and skills learned at their PDCs, and were also introduced to new design processes and methods. Mini-design exercises were practiced and next-steps recorded.

**Organisational development**

The process of handing over the various centres and partnerships (Agro-vet, Tools, Vegetable growing and Vegetable collection/marketing) described above has been delayed due to the pandemic and is planned to move forward over the next year, when HPC and its groups receive capacity building training in the formation and operation of cooperatives to meet the functions required. In this way, the design of the livelihoods part of the program, involving certification, product collection and distribution, organisational capacity-building, business training and market access will come together to create model business structures that increase the resilience and effectiveness of the overall program aims.

**Organic Certification**

HPC is continuing its process of Participatory Guarantee System (PGS) of organic certification in a collaborative partnership with the Social Work Institute. Currently one barefoot consultant (BC) has been employed by SWI for this program and they are currently assembling data from groups in the area, including crop types, seasonal output, crop residue production (straw, etc.), composting methods, pest-management methods and seed saving. The Provincial government is planning to create an “Organic Karnali” brand also using PGS and other certification methods, and HPC is increasing its visibility as a resource organisation for this process with BCs and demonstration areas available for use, together with its own aims of PGS certification and improved access to local, regional and national markets.

**Farmer-Farmer extension**

Gatherings have continued to happen between groups in Humla and Surkhet where members share experiences and resources and discuss programs and activities planned for the near future. In this period there have been meetings involving 124 farmers (43 women and 81 men).

This also included the annual review and evaluation meeting between groups and HPC staff and board committee. The results of this are given in **Annex J**.

**Barefoot Consultants' Workshop**

Review and evaluation workshops have been held in Surkhet and Humla where BCs share their experiences and discuss what improvements can be made to their work. This is now a focus area for HPC as BC's work is a prime way of spreading its techniques and approaches without significantly increasing the administration and management of the organisation. There are currently **8 BCs** active in HPC working areas and **4** seconded to other organisations and districts. These include a secondment to a new eco-resort in Nuwakot district, a Buddhist monastery near Kathmandu, and a long-term community apple orchard development project in Dhading district. In total, **25 BCs** have been produced over the past 3 years.

**Video film making**

Since receiving training in video production, HPC have produced a range of long and short videos for training and awareness-raising, which are available to view via the HPC website as Youtube videos. HPC has recently acquired a new laptop specifically for the production of videos, meanwhile it has partnered with Almost Heaven Farms in Eastern Nepal to produce 4 new videos: Introduction to Permaculture, Fermented foods, Rocket Stoves and Vermicompost. To date, 3 of the 4 videos are complete:

1. Intriduction to Permaculture: <https://www.youtube.com/watch?v=dRZBUBlHgWE>
2. Kimchi Fermented Foods: <https://www.youtube.com/watch?v=UgSKuJHdExk>
3. Rocket Stoves: <https://www.youtube.com/watch?v=Ey_mYlYb60E>

**Community contributions**

Community contributions to activities in Surkhet and Humla are detailed in **Annex B (worksheet 4)**. They show a total contribution of **1,501 person days** with a monetary value of **NRs 1,031,600/-** **(GB£6,450).** Activities include maintaining community infrastructure (paths, bridges, water courses, mills, schools), and direct contributions to HPC programs such as porterage of equipment, and planting in schools.

**HPC Website**

HPC’s website, [www.himalayanpermaculture.com](http://www.himalayanpermaculture.com) was created February 2009. Up to the time of this report (November 2021), over **308,470** visits have been recorded.

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