

SHIP Nepal
Self Help Initiative Promotion Project
Simikot, Humla
Annual Narrative Report
(May to April 2011/2012)

1. Introduction

Introduction at the program level:

This year SHIP Nepal emphasis in: strengthening of farmer managed community seed bank(CSB); conservation of on-farm in-situ plant genetic resources (PGR); strengthening the participatory varietal selection (PVS) and participatory plant breeding (PPB); strengthening of soil and water conservation practices; increasing in crop diversification and improve in cropping pattern; promotion of agro-forestry and forestation; increasing and improving capacity of rural community in micro-enterprise, financial management and marketing system; establishing income generation opportunities; increasing in number of women to improve agricultural production activities and increasing engagement of young farmers & stake holder in Agro Biodiversity conservation activities.

All emphasis planed activities are accomplished as period and out of which; establishment of participatory plant varietal selections (PVS-*mother baby trial*) in paddy of summer crop and wheat of winter crop; establishment of biodiversity block and field assessment work in buckwheat, panicum millet, maize and bean in summer crops and wheat, naked barley and barley in winter crop; increasing crop diversification; establishment of agro-forestry model garden, increasing and improving capacity of rural community in micro-enterprise; support and increasing dalit and women number to improve agriculture activities and engaging young farmers in agro biodiversity conservation activities are the important work accomplished in this year. Besides these, all major activities were accomplished to support these major important works.

Transportation of tools, equipment, irrigation pipe, toilet construction materials and foundation seed are delayed due to cargo monopoly. Cooperative/group member did not realized easily to provide their fertile and good land for establishing mother trial and biodiversity block establishment work. Most of activities are run parallel with farmer's cultivating time by which, farmers were worry to give their time. Working with farmers, working in farmers' field and working with women and dalit together including coordination and collaboration with government organization and VDCs are the opportunity for SHIP Nepal in this year.

Introduction at organizational level:

Staffing: Role of each staff is the major component to get success in the program, arrangement of staff is good in SHIP Nepal. However, due to program need and unsatisfied of working women with SHIPN, we replaced women staff and admitted the agriculture field technician. Here is no women agriculture technician. We have admitted *2 female social animators from June first 2012 specially to work at Kharpunath and Raya VDCs*. Everyone staffs are responsible on their right and duty. Monitoring and supervision of each staff is going in good manner from office to field. Regular staff meeting, orientation, fit back, interaction and personal review within the staffs are the tools for monitoring.

Governance: SHIP Nepal board, management committee and program executive officer and other program staffs are the governance structure. Administration and personnel policy are up dated time to time as necessary according to government policy. Every system is ruled in the policy and management committee. If there are any problems created with in the staffs and other organizational system that will be solved through quick coordination and discussion meeting with in board and staffs. All together there are 7 board members with two women and 11 general members with 2 women and 1 dalit male.

Finance and administration: Finance and administration is managed under finance and administration section and every system is managed in the admin policy and personal policy as we follow.

Some system are follow with Nepal government role and regulation, some are follow with local level role which as declare by district development committee (DDC) of Humla.

Capacity building: To make the staff capable in the related field, SHIP Nepal always involve the staff in capacity building training. This year, three staffs are involved in capacity building training and workshop held by USC Asia Pokhara. The trainees are received [knowledge Approaches and Methods for On-farm Conservation and Use of Agro biodiversity](#). The training is very important to build the capacity of the staffs knowledge in planning, implementation and supervision of the program.

2. Program Reach

Following are the information related to SHIP Nepal working area.

District or commune or province name	Nepal, Humla			
Total number of villages or communities	4 VDCs, 16 program sites/communities			
Villages or communities participating in USC programs (by name)	Takla/bamta, Kharpelgaun, Durpa, Yanchu of Kharpunth, Deukhuri, Gopka, upper Lali, Pyusa of Lali, Karanga, Raya, Gumba/gumbadhara, Thali of Raya and Lower Ripa, Upper Ripa, Unapani-Lekh, Unapani-Aula of Sarkideu VDC			
Estimated total number of HHs in participating villages or communities.	1268HHs in which 278 in Kharpunath, 296 in Lali, 312 in Raya and 382 in Sarkideu VDC.			
Number of HHs indirectly benefiting from USC programs in 2011-2012.	414 household indirectly benefiting from USC program in 2011-012			
Number of HHs directly participating in or benefiting from USC programs in 2011-2012. (Direct Beneficiaries)	854 out of these, 255 in Kharpunath, 107 Lali, 223 in Raya 269 in Sarkideu VDC from support activities and 637 out of these, 183 in Kharpunath, 161 Lali, 138 Raya and 155 in Sarkideu from training/workshop/meeting			
Total number of direct beneficiaries in training/workshop/meeting	Men	Women	Young men	Young women
	317	320	194	205

3. PHASE IN AND PHASE OUT

SHIP Nepal has not any phase in and phase out of any community in this year. More or less SHIP Nepal is continually will work in all 16 program sites/communities for remaining 3 years.

4. Major activities for the 2011-012

4.1 [M&E and collecting baseline data:](#)

During program period, cropping pattern data collection work and small focus group discussion for well being ranking were done in 16 sites for monitoring and evaluation plan preparation instead of meeting for the study of local cropping systems and associated knowledge during this, prepared crop calendar and finding out cropping pattern of 120 household. Data collection work is completed from field and compilation work remained due to electricity. Hydro power canal is damaged due to landslide and no electricity from September to November.

Summary of the activities is illustrated as given below. In wellbeing ranking, sample household were put in three categories. Out of total sample house hold 589, 70 household in category (I), 219 household in category (II) and 300 household remain in category (III). In total house hold of program running VDCs,

only 151 household come under category (I); 471 household in category (II) and remaining 646 household in category (III).

Note: Total sample household is 589 and total household in four VDCs is 1268.

Summary table of wellbeing ranking

Categories	VDC/Number of household				Total
	Kharpunath	Lali	Raya	Sarkideu	
I	16	17	11	26	70
II	58	42	50	69	219
III	61	92	89	58	300
Total	135	151	150	153	589

Cropping pattern : Study found in cropping pattern, most of the people using mixed farming system in summer crops. Two types of paddy is growing one is in bari land (upland paddy cultivation) another one is in khet (low land paddy cultivation). Most of farmer are not using soybean plantation in paddy hill. There is only three crops farming in winter seasons-wheat, naked barley and barley. No mixed farming is found in winter crops. Although most of the farmer following mixed farming system in summer crops, some improvement in this practice is needed like types of crops following leguminous, roots and bulb crops. SHIP Nepal work can improve in this practice including, increasing crop intensity basically in winter crops (plantation of potato, rape mustard and pea with wheat, naked barley and barley where possible). Similarly, maximum plantation of soybean in paddy hill will be increased in our intervention at the end of 3 years. More of the practices in cropping pattern should maintain and replicate to other household who did not followed.

Cultivation area of the program area: Total farming area of the four program VDCs is 337.13 hectares out of which only 34.10 hectares are under irrigation of 760 household and growing low land paddy in this much area of irrigated areas. Wheat, naked barley and barley are grown in 61.28 hectares of land good land and 38.72% of marginal and very shadow condition lands remain under fallow in winter.

Details	VDC/sample and extrapolated HHs/area in hectares									
	Kharpunath		Lali		Raya		Sarkideu		Total	
	1	2	1	2	1	2	1	2	1	2
	40	278	49	296	43	312	16	382	148	1268
Upland area (non irrigated land) in hectares	10.85	75.41	9.55	57.69	8.99	65.22	4.39	104.72	33.774	303.03
Low land (irrigated land) area in Hectors	0.90	6.26	0.99	5.97	0.47	3.38	0.78	18.50	3.128	34.10
Total area in hectares	11.75	81.66	10.54	63.66	9.45	68.59	5.16	123.22	36.902	337.13
Fallow land in winter (hec)	3.6	40.03	3.16	28.37	3.44	29.79	1.36	32.36	11.56	130.55
Fallow land% in winter	30.6	49.0	30.0	44.6	36.4	43.4	26.3	26.3	31.3	38.72
Number of HHs with upland	40	278	49	296	43	312	16	382	148	1268
# of HHs with low land	17	118	25	151	15	109	16	382	73	760
# of HHs without low land	23	160	24	145	28	203	16	382	91	890

1 indicates sample household in assessing cropping pattern 2 for extrapolated number

4.2 Program Activities

For VDC wise details please see in attached table number 1. (a) and (b) and table number 2.

Strengthening of farmer managed Community Seed bank; On-farm in-situ conservation of plant genetic resources (PGR) strengthened the participatory varietal selection (PVS) and participatory plant breeding programs (PPB) in farming communities and supporting and training in agro-technology are the major planned and implemented activities under the **Seed supply systems and diversification of plant genetic resources** core theme. There are several sub-activities implemented under each major activity. All together, 317 male with 194 young male and 320 female with 205 young female were participated in training/workshop/exchange visit, diversity fair and orientation meeting of 637 household from 16 sites/communities of 4 program VDCs. Out of trained total participants, 15.38%(195 out of 1268) households get support in diversity block establishment, mother and baby (PVS) trial establishment including maize and paddy foundation seeds and support in new technology transfer(iron smith-agriculture equipment making tools). Diversity block establishment to verify local land races and mother baby (PVS) trial are the major implemented sub-activities under theme-1.

Strengthening of soil and water conservation practices in farming communities, increase in crop diversification and improved in cropping pattern, promotion of agro-forestry and forestation in *target communities* are the three major activities under core theme **Climate Change Adaptation and Mitigation**. Orientation on methods and practices of soil and water conservation and support small irrigation & agriculture equipment, green house plastic, seeds are sub-activities under **strengthening of soil and water conservation practices in farming communities**. Small focus group discussion on wellbeing ranking, cropping pattern and cropping calendar instead of meeting for the study of cropping system and associated knowledge and safe family toilet construction material support are sub-activities under **increase in crop diversification and improved in cropping pattern** and initiation of to develop agro-forestry model garden with plantation of fruit, fodder, vegetables, herbal, establishment of nursery installation of low fuel consumption ICS to improve health & environment are another sub-activities implemented under **promotion of agro-forestry and forestation**. All together, 83 male with 35 young male and 82 female with 60 young female of 13.01 % (165 out of total 1268) household were involved in implemented activities(training/orientation and meeting) from 12 communities. 26.74% (339 out of total 1268) households benefited from support in small irrigation and agriculture equipment and vegetable seeds, green house plastic; safe family toilet construction materials; agro-forestry model garden and nursery establishment; and installation of low fuel consumption ICS to improve health and environment.

Increase and improve capacity of rural community in micro-enterprise, financial management and marketing system, strengthening capacity of groups/cooperatives and establish income generation opportunities in farming communities are three major activities planned and implemented under **Rural economy and farmer organization**. Meeting with micro-entrepreneurs for possible agro product marketing and support community biodiversity conservation fund beneficiaries are two implemented sub-activities under **Increase and improve capacity of rural community in micro-enterprise, financial management and marketing system**. Account keeping and management training; meeting with groups and support to cooperative registration and stationary support are three sub-activities under **strengthening capacity of groups/cooperatives** and support to establish hotel garden for eco - tourism in 6 hotels and 4 tailoring under **establish income generation opportunities**. All together, 150 male with 91 young male and 70 female with 48 young female of 220 households were participated in training/orientation meeting in implemented activities in 12 sites of 4 program VDCs. 24.92%(316 out of total 1268) household benefited from the support in community biodiversity conservation fund and stationary support; and support to hotels and tailoring.

Increased women participation in SHIPN program and increase number of women in improve agricultural production activities are the two major activities implemented under **Gender Equality core theme-4**. Agro-biodiversity conservation leadership training, post harvest loss minimization analysis of major cereal crops and support in electrical oil processing machine are the three sub-activities under **increase women participation in SHIPN program**. Discussions meeting for against monthly period (*chhaupadipratha*) support women farmers in improving home garden biodiversity to increase healthy food and income are

sub-activities for increase **number of women in improve agricultural production activities**. All together, 81 male with 57 young male and 113 female with 77 young female were participated in gender related training/orientation meeting from 15.30% (194 out of total 1268) households from 14 sites of 4 program VDCs. 34.86% (422 out of total 1268) household benefited from the support in oil expelling electric machine and home garden promotion (green house plastic, seeds and garden pipe support) from all 16 sites of 4 program VDCs. Oil expelling machine is only in four sites of Kharpunath VDCs.

Increase engagement of young farmers and stake holder in Agro Biodiversity conservation under **SPREAD OF USC PROGRAM (young farmers and stakeholders)**. Meeting on young farmer present status and their role in agro-biodiversity conservation; school arboretum establish (School biodiversity garden) establishment; meeting with community development committee (CDC); agro-biodiversity management & climate change assessment workshop and review meeting with CBO and stakeholders (GOs and NGOs) are sub-activities implemented during the progress year 2011/012. From all activities except school biodiversity garden activities, 64 male with 42 young male and 58 female with 43 young female of 122 household from 16 sites of 4 program VDCs out of which, 8 stakeholders (3 government and 5 non government organization) also involved in review and planning meeting at simikot. From school biodiversity garden promotion activity, 25.16% (319 of total 1268) households are benefited in 6 sites of 2 program VDCs.

20.11% (255 out of total 1268) household benefited from additional fund support in 5 sites of Raya and Sarkideu VDCs.

Field visit in Kharpunath, Lali and Raya VDCs were done by USC Canada program officer Kate green and UCS Canada Asia Regional representative and scientific advisor Dr Pratap Kumar Shreshtha and senior agriculture officer Bharat Bhandari supported in field level crop character assessment, seed supply system training and Agro-Biodiversity Management & Climate change Assessment Workshop held in simikot.

Theme wise details of training/workshop/meeting participants Details by VDC beneficiaries (Male/Young Male/Female/Young Female)

Table number -1. (a)

S N	Core theme	Kharpunath				Lali				Raya				Sarkideu				Total			
		M	YM	F	YF	M	YM	F	YF	M	YM	F	YF	M	YM	F	YF	M	YM	F	YF
1	Seed security & diversification	90	48	93	60	78	61	83	59	73	37	65	42	76	48	79	44	317	194	320	205
2	Climate change mitigation and adaptation	18	10	17	10	24	12	27	18	18	7	18	14	23	6	20	18	83	35	82	60
3	Rural economy and farmer organization	40	19	23	14	39	28	14	11	30	18	20	14	41	26	13	9	150	91	70	48
4	Gender Equality	23	16	27	19	19	13	30	20	17	11	29	18	22	17	27	20	81	57	113	77
5	Engagement of Young farmers and stakeholders	11	8	20	16	14	7	14	11	14	10	11	8	25	17	13	8	64	42	58	43
Actual number		90	48	93	60	78	61	83	59	73	37	65	42	76	48	79	44	317	194	*320	205

Theme wise details of training/workshop/meeting beneficiaries'

Household by VDC

Table number -1. (b)

SN	Core theme	Kharpunath		Lali		Raya		Sarkideu		Total	
		HHs	%	HHs	%	HHs	%	HHs	%	HHs	%
	Total number of HHs in VDCs→	278	21.92	296	23.34	312	24.60	382	30.12	1268	100
1	Seed security and diversification	183	65.83	161	54.4	138	44.2	155	40.6	637	50.24
2	Climate change mitigation and adaptation	35	12.59	51	17.2	36	11.5	43	11.3	165	13.01
3	Rural economy and farmer organization	63	22.66	53	17.9	50	16	54	14.1	220	17.35
4	Gender Equality	50	17.99	49	16.6	46	14.7	49	12.8	194	15.30
5	Engagement of Young farmers and stakeholders	31	11.15	28	9.46	25	8.01	38	9.95	122	9.62
Actual in number/percentage		183	65.83	161	54.4	138	44.2	155	40.6	637	50.24

Theme wise details of support beneficiaries' household by VDC

Table number-2.

SN	Core theme	Kharpunath		Lali		Raya		Sarkideu		Total	
		HHs	%	HHs	%	HHs	%	HHs	%	HHs	%
	Total number of HHs in VDCs→	278	21.9243	296	23.3	312	24.6	382	30.1	1268	100
1	Seed security and diversification	111	39.93	62	20.9	8	2.56	14	3.66	195	15.38
2	Climate change mitigation and adaptation	212	76.26	38	12.8	44	14.1	45	11.8	339	26.74
3	Rural economy and farmer organization	114	41.01	64	21.6	53	17	85	22.3	316	24.92
4	Gender Equality	255	91.73	66	22.3	57	18.3	64	16.8	442	34.86
5	Engagement of Young farmers and stakeholders	132	47.48	0	0	187	59.9	0	0	319	25.16
6	Additional fund support	0	0.00	0	0	22	7.05	233	61	255	20.11
Actual total beneficiaries HHs in all theme		255	91.7266	107	36.1	223	71.5	269	70.4	854	67.35

1. Seed supply systems and diversification of plant genetic resources

1.1. Strengthening of farmer managed Community Seed bank.

Under this activity, three sub-activities carried out namely **meeting on establishing farmer managed community seed bank (CSBs); exchange visit focus on community seed bank and training on quality seed production**. Out of three, meeting is held in sites, exchange visit is out of district and training was organized at district head quarter, Simikot. In all three sub-activities, 73 male with 54 young male and 69 female with 48 young female of 142 households participated from 14 sites (Takla, kharpelgaun, Durpa, Yaunchu, Deukhuri, Gopka, Lali, Pyusa, Karanga, Raya, Thali, Lower ripa, Unapani-aula and unapani-Lekha) of 4 program VDCs.

Farmers of Humla district following traditional seed supply system ie they are exchanging seed including in their community in village and out of village. Most of seed they need keep in their home. In the year 2011/012, SHIP Nepal has planned to identify the needs of farmers in farmer managed community seed bank. Out of planed activities, 11 one day 5 meeting held on establishing community managed seed bank. Out of 5, 1 combine meeting from takla/bamta, Durpa and Kharpelgaun, one combined at Lali-5 from Deukhuri, Gopka, Lali and Piusa sites and one single at Lali-5, 1 combined meeting at Raya from Karanga, Gumba and Raya and one single meeting at Thali.

During meeting, introduction of seed bank, it's important and management aspects were discussed. Desires of farmers in managing the seed bank also find out. In some community, they need to construct seed bank building, somewhere need different types of improved seed to keep and sell from seed bank. Most of farmers demand is need to establish seed bank in each their community including building. From the meeting, from next year, SHIP Nepal thought to identify seed saver/custodian farmers from each community. They will train and support to be a community seed savers and seed supply volunteer to improve local seed exchange and supply system.

Including 3 staffs, 12 (8 female) participants were involved in 10 days farmers exchange and visit in December and January in out of district. Banke, Bardiya, Chitwan, Kathmandu, Lalitpur and Kavre district from Durpa, Kharpelgaun, Pyusa, Lali, Raya, Thali, Lower ripa, Lekh. In Bardiya and banke, exchange and visit were done about home garden and wild life (Krishnasar-a kind of deer-black buck) conservation area. In chitwan, three item-maize crop research and development of Nepal government, community seed banking system and private poultry farming supported by LIBIRD (Local Initiatives for Biodiversity, Research and Development), home garden at Bardiya is also supporting from LIBIRD. A private farm design by Agriculture graduate students Govinda Sharma {HASERA- HA-Hariyo(Green-Plant), SE-Seto(White-Milk), Ra-Rato(Red-Meat)} visited at Kabre district, about ecological farming systemg. Similarly, were visited at zoo park-Lalitpur and National gene bank, vegetable farming and seed production and cultural practices of horticulture-fruit farming system of department of Nepal government. Other visiting sites were historical part (presently historical museum center) at Royal palace, religious part at Pashupati temple, boudha, syambhunath and other marketing center etc in Kathmandu valley. Pear, grape, chest nut and a kind of walnut fruit sapling and seed of taro and green soybean are distributed to the each visitor.

A 3 days training was organized at district head quarter simikot to 21 (15F) seed savers with 9(6F) young farmers. Conservation and important of local seeds, seed improvement practices and disadvantage of outsider imported seed are the major discussion matter in the training. Trainees were expected high yielding varieties and insect/pesticide due to low production and more insect/pest harass in their field. After the training, trainees were committed to select seed from their field and local practices of insect/pest management. ***For summary please see in given table number-3.***

Summary Table-3

S N	Sub-activities	# of A/days	HHs/ sites / VDCs	# of Beneficiaries				Venue
				M	YM	F	YF	
1.1.1.	Meeting on establishing farmer managed community seed bank (CSBs)	5/1 each	142/10/3	73	54	69	48	At Kharpelgaun from Kharpelgaun & Durpa, at Lali from pyusa, Lali, Deukhuri & Gopka of Lali, at Raya from Karanga, Raya, Gumba and at Thali from Thali
1.1.2.	Exchange visit focus on Community Seed Bank	1/10	12/9/5	2	2	7	5	Banke, Bardiya, Chitwan, Kathmandu, Lalitpur and Kavre district from Durpa, Kharpelgaun, Pyusa, Lali, Raya, Thali, Lower ripa, Lekh
1.1.3.	Training on quality seed production & support	1/3	21/11/4	6	3	15	6	Takla, kharpelgaun, Durpa, Yaunchu, Gopka, Lali, pyusa, Raya, Thali, Lower ripa, Unapani-aula
A	Respondent number		172/11/4	81	58	91	59	15 sites
B	Actual number		142/14/4	73	54	69	48	14 sites of above

1.2. On-farm in-situ conservation of plant genetic resources (PGR)

Under this activity, three sub-activities carried out namely, ***follow up meeting on PGR with seed education class participants; orientation meeting on seed and diversity fair and organized seed and diversity fair, biodiversity block establishment*** (meeting on crop diversity block establishment; established diversity block of Panicum millet, maize, buckwheat and bean in summer and wheat, naked barley and barley in winter crops) and their field level assessment on crop characters in biodiversity blocks.

In all sub-activities, 236 male with 143 young male and 243 female with 145 young female of 479 households participated from 6 sites (kharpelgaun, Durpa; Pyusa, Lali; Raya and Lawer ripa) of 4 program VDC. Similarly, 195 households got support in diversity block establishment work, mother and baby (PVS) trial including increasing crop intensity adding new crop ***varieties (maize at Kharpelgaun of Kharpunath VDC)*** and new technology transfer (***preparing agriculture equipment preparing tools to iron smiths***)

Although farmers of working area maintaining the plant genetic resources they have from tradition, some seed selection practices are poor as a result crop yield is being decreasing. In this sub section, previous year follow up meeting including seed education classes, meeting on crop diversity block establishment, field level assessment on crop characters in biodiversity blocks are the sub activities accomplished during May to October 2011/012.

Three follow up were done including seed education class farmers in yangchu, Raya and Ripa. In Pyusa of Lali VDC, farmers were not present during follow up meeting due to their own development activities

During meeting, seed education class impact was discussed. According to participants, before they attend the class, they keep their seed after brought in home and after education class, they practice to select the seed from their field. Out of four seed education classes, two at Ripa of Sarkideu and Raya of Raya sites support in establishing biodiversity block and mother trial.

Two meeting were held including Naudhara middle secondary school at Durpa of Kharpunath and Kailash middle secondary school at Pyusa of Lali VDCs for supporting in biodiversity block establishment. Meeting helped to establish buckwheat biodiversity block at Durpa and maize diversity block at pyusa. One conservation committee were formed in each school and including in the committee, four working groups formed for establishing the block and further management.

After conducting the meeting, four diversity block established in Durpa of Kharpunath, Pyusa and Lali of Lali VDC and Raya of Raya VDC. As already mentioned above, Buck wheat diversity block at Durpa, maize diversity at pyusa, Panicum millet and bean diversity at Lali and buck wheat, maize, Panicum millet and bean diversity at Raya. Two women Lila kumara malla at Lali and Bancha Rokaya at Raya and two schools students/teachers were involved in diversity block establishment work. 4 display board and name late tagged in diversity block. Display board and number plate written at Simkot.

Field level assessments were done on crop characters in summer crop biodiversity blocks. This work is done in presence of senior agriculture specialist Bharat Bhandari from USC Canada Asia Pokhara. Assessment works were done in buckwheat at Durpa, Panicum millet at Lali and maize and bean assessment were done at Raya. All assessment work could not be done due to late crop maturity during assessment period. Maize diversity block assessment is not successes due to late planting and proper land selection. In winter crops (wheat, naked barley and barley) variety verification work is done by SHIP Nepal technical staffs in diversity block. Some data base succeed information of summer crop is ***presented in next page (biodiversity block establishment work)*** and production data base information is remain due to late harvesting in all sites during reporting period in winter crops. ***For summary please see in given table number-4***

Table number-4

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHS/ sites / VDCs	M	YM	F		YF
1.2.1.	Follow up meeting on PGR with seed education participants	3/1	90/4/3	41	40	49	48	At Yangchu of Kharpunath, at Raya of Raya, at upper and lower Ripa of Sarkideu VDCs
1.2.2.	Orientation meeting on seed and diversity fair	16/1	479/16/4	236	143	243	145	In all 16 sites of program areas
1.2.3.	Seed and diversity fair	4/1	384/4/4	209	185	175	147	At Kharpelgaun from from all 4 sites, at Lali from all 4 sites; at Raya from all 4 sites and at Ripa from all 4 sites of 4 program VDCs.
1.2.4.	Meeting on crop diversity block establishment	2/1	103/7/4	68	68*	35	35*	At naudhara middle secondary school, Kharpunath and Kailash middle secondary school, Pyusa Lali.
1.2.5.	Established diversity block of Panicum millet, maize, buckwheat and bean in summer and wheat, naked barley and barley in winter crops	15 blocks at 7 location	103/6/4	68	60	35	32	Buckwheat at Durpa, Maize at Pyusa, Bean and Panicum millet at Lali, Maize, bean, buckwheat, panicum millet and wheat at Raya-3, Kharpelgaun, barley and naked barley at Lali
1.2.6.	Field level assessment on crop characters in biodiversity blocks	15 blocks at 7 location	146/6/4	95	37	51	40	as above mentioned
A	Respondent number	25/4	1202/43/23	614	447	553	387	6 sites as above
B	Actual number	25/1	479/6/4	236	143	243	145	6 sites as above

Biodiversity block establishment work-

Finger millet, panicum millet, wheat, buck wheat, naked barley, paddy, maize, foxtail millet, barley and amaranths are the cereal crops of humila. Due to delay in seed collection of the core crops of finger millet and paddy in the planning year, could not established the diversity block. Panicum millet, maize, buck wheat and bean are selected to establish diversity block in summer crops and in winter crops, wheat, naked barley and barley were selected and established the diversity block during the planning year. Finger millet and paddy diversity block will be established during the planning year 2012/013 program. All seed collection, diversity kit preparation/distribution, site/land and farmer selection work has finished in these two crops (finger millet and paddy) during reporting time.

The main objectives of the diversity block establishment are to verify the crop varieties that received in base line survey and per unit area production of the crop varieties and further improvement of the local crop varieties.

Site/farmer selection and orientation meeting, local crop varieties seed collection, preparation of diversity kits and diversity block establishment then preparation of display board, name plate and field level assessment work in diversity block are the activities done in biodiversity block establishment work.

The locations of the diversity block were selected near the main way and public land (school). In itially, no proper land is found or farmer did not accept to give such land. 4.5 to 6 (3 meter length and 1.5 to 2 meter width) square meter land is prepared for each varieties. 30 centimeter width space was given between two plots. Two set of diversity kit were prepared for two locations. Diversity blocks were established due to availability of land. Some crops were diversity block established in one place and some were done in separate location. In winter crops, to save the land space, one square meter area was given for each variety. ***For summary please see in the given table***

Data base information on biodiversity block establishment table-5

Crop	Number of		Location	Sites(site number)	Altitude (meter)	Name of farmers/school involved
	Replication	Varieties				
Summer crops						
Panicum millet	11	5	Lali-5	Lali (3)	2241	Lila kumara malla
Bean	15	13				
Buckwheat	9	9	Kharpunath-7	Durpa (3)	2810	Hilsa naudhara middle secondary school-teacher, students and cooperative members
Maize	12	10	Lali-8	Pyusa (4)	2200	Kailash middle secondary school-teacher, students
Panicum millet	10	5	Raya-3	Raya (2)	2343	Banchara Rokaya and few cooperatives members
Bean	14	13				
Buckwheat	8	8				
Maize	12	10				
Winter crops						
Wheat	13	5	Raya-3,	Raya (2)	2255	Banchara Rokaya
Naked barley	12	8	Sarkideu-1	Lower Ripa (1)	1921	Bhakil Pariyar and family
Barley	9	6				
Wheat	8	4	Kharpunath-6	Kharpelgaun (2)	2115	Pareglal Shahi and family
Naked barley	14	8	Lali-5	Lali (3)	2221	Lila kumara malla
Barley	6	4				

To verify the base line data of crop varieties, assessment of crop characters were done. In assessment work, most preference varieties are identified based on farmer's perception. Although different and high numbers of varieties found in base line survey and diversity block. Whereas the base line data show panicum millet-5, buckwheat-5, maize-7 and bean-10 varieties had found. In diversity block, panicum millet-5, buckwheat-9, maize-10 and bean-13 varieties were seen. After diversity block assessment, verified only 3 varieties in panicum millet, 4 varieties in buckwheat 4 including 2 improved varieties of maize and 11 varieties in bean in established diversity block of summer crops.

For summary please see in the given table

Data base information on biodiversity block after assessment table-6

Crops in diversity block	In base line	Before assess		After assess
		Replication number	Number of collection varieties	# of verified varieties
In summer crops				
1. Panicum millet	5	10	5	3
2. Maize	7	12	10	4(2improved)
3. Buckwheat	5	8-9	9	4
4. Bean	10	14-15	13	11
In winter crops				
5. Wheat	12	13-14	4-5	Remaining
6. Barley	8	6-9	4-6	4
7. C. Naked barley	4	12-14	8	4

We found three distinct types; Rato chino, seto chino and intermediate types named as *Kaptade*, however some of the farmers were also telling about black chino in their villages. Rato chino is more suitable for higher altitude areas (*Lek*) and is generally grown. Preferred use of chino as informed by the community is making *bhat* followed by *muri* (popped grain used for snacks). The major constraint for chino crop is post harvest operation particularly at separating husk and grain.

For summary please see in the given table

Data base information on biodiversity block after assessment table-7

<i>Panicum millet verified varieties</i>	<i>Other name</i>	<i>Crop history</i>	<i>Most preferred traits</i>	<i>Less preferred traits</i>	<i>Cultivation trend in the area</i>
Rato chino (red)	-	Grown from generations	Good taste, nutritious and palatable (child, old aged, women and sick) More adapted in higher altitude (<i>lek</i> area)	Difficult for dehusking	decreasing
Seto chino (white)	Dudhe chino	Grown from generations	Adapted to lower altitude and marginal soil, tolerant to drought	Less palatable	increasing
Kaptade (mixed type)	Kaude	Grown from generations	Adapted to lower altitude and marginal soil, tolerant	Less palatable	same

Women farmers at Lali ranked chino varieties over the traits that they consider important for them. The most preferred variety was rato chino as it is reported to have good quality traits such as tasty, nutritious and palatable. However the area under rato (red) chino is reported to be decreasing mainly due to the problem in separating grain and husk that has increased drudgery to women and children.

For summary please see in the given table

Data base information on biodiversity block after assessment table-8

<i>Characteristics</i>	<i>Preference ranking of Chino Varieties</i>		
	Rato	Seto/Dudhe	Kaptade
1. Good in taste	3	1	2
2. Yield potential	2	2	2
3. Easy to dehusk	1	3	2
4. Drought to drought	3	1	2
5. Tolerant to pest and diseases	2	2	2
6. Tolerant to lodging	2	2	2
7. Adapted to marginal soil	2	2	2
8. Volume expansion after cooking	3	1	2
9. Other qualities (nutritious and medicinal values)	3	1	2
Average rank score	2.3	1.7	2.1
<i>Overall preference</i>	<i>I</i>	<i>III</i>	<i>II</i>

Ranking done in 1-3; 3=most preferred, 1=least preferred (Lali communities)

In a discussion about maize crop and its varieties with farmers, it is reported that maize is mostly consumed as *cole* followed by *satu*, *roti* and roasted cob during maturity. Cole is one of the local food items of maize and is prepared by boiling of soaked grain mixed with beans and is popular during winter season. Maize is relatively a new crop in program VDC particularly in Kharpelgaun. Discussion about the characteristics and traits as well as field observation has indicated that there are four varieties in maize grown in program VDCs.

For summary please see in the given table

Data base information on biodiversity block after assessment table-9

Maize verified varieties	Other name	Crop history	Distinguishing traits	Most preferred traits	Less preferred traits	Cultivation trend in the area
<i>Tinmase</i>	<i>Kukurya, musyah, sumalya</i>	Grown from generations	White flint type grain, white tassel and silk	Early maturity, good yield, good eating quality	Susceptible to disease	same
<i>Seto murali</i>	<i>Dhol, Dante?</i>	Grown from generations	Small and slender ear, white and small flint type, small tip on ear	Medium maturity, good for popping	Low yield Susceptible to disease	decreasing
<i>Ganesh 2</i>	<i>Bikase pahelo</i>	Introduced -6-7 years before	yellow dented type grain	High yield	Late maturity	increasing
<i>Ganesh 1</i>	<i>Bikase seto</i>	Introduced 10-12 years before	White dented type grain	High yield	Late maturity	same

Tinmase is the most popular variety followed by *seto bikase*. The area under *murali* is rapidly decreasing as improved varieties introduced in the area. It is noted that seed selection practices in maize crop is poor to maintain varieties. There is an opportunity to improve population of *tinmase* through mass selection and also enriching its gene pool through random crossing with some desired improved variety.

For summary please see in the given table

Data base information on biodiversity block after assessment table-10

SN	Characteristics	Preference ranking of Maize varieties			
		<i>Tinmase</i>	<i>Seto murali</i>	<i>Pahelo bikase</i>	<i>Seto bikase</i>
1	Yield potential	3	1	4	3
2	Early maturity	4	3	1	2
3	Tolerance to disease and pests	1	2	4	3
4	Tolerance to drought	4	1	3	3
5	Tolerance to cold	4	3	2	2
6	Tolerance to lodging	4	3	2	2
7	Adapted to marginal soil	4	3	2	2
8	Good for <i>cole</i> preparation	4	1	2	3
9	Good for roti preparation	4	1	3	3
10	Good for roasting of cobs	3	4	1	2
11	Good for roasting of grain	3	4	2	2
Average rank score		3.5	2.4	2.4	2.5
Overall preferences		I	III	III	II

Ranking done in 1-4; 4=most preferred, 1=least preferred (Raya and Sarkideu communities)

In a buckwheat trial, there were 14 collections from four working VDCs. Rigorous discussion with community representatives about traits perceived by farmers and observation of plant characteristics (leaf, flower, seed), it was confirmed that there are four types of buckwheat named mithe, tito Batule (also called byassi), tito-Kisse and tito chuchhe in program VDCs. Among buckwheat varieties, farmers reported that mithe is an early variety planted in 1st week Shrawan and harvested in 2nd week of Kartik.

Other three varieties are bitter in taste and called as tite and are generally planted during 3rd week of Ashar to 2nd week of Shrawan and are harvested during 1st to last week of Kartik.

For summary please see in the given table

Data base information on biodiversity block after assessment table-11

<i>Buckwheat verified varieties</i>	<i>Other name</i>	<i>Crop history</i>	<i>Most preferred traits</i>	<i>Less preferred traits</i>	<i>Cultivation trend in the area</i>
Mithe	Patti Gyaba	Grown from generations	Sweet taste, good in marginal land and high rainfall season, good for honeybee,	Low yield potential, less palatable	same
Tito Batule	Byassi	Introduced 20 years before from Simikot area	High yield potential, good flour recovery	Less tasty, susceptible to high rainfall, less palatable	Increasing
Tito Khisse	-	Grown from generations	Good taste, adapted to marginal land	Low yield potential, less flour recovery	Decreasing
Tito Chuchhe	-	Grown from generations	Good yield, Good for roti palatable	Low yield potential, difficult for threshing?	Decreasing

Farmers ranked these varieties to understand the traits and their preferences. They themselves identified the characteristics that they consider important for them. In overall, sweet variety is the most preferred followed by tito khisse which is also popular for good taste and is better adapted in marginal growing conditions.

For summary please see in the given table

Data base information on biodiversity block after assessment table-12

<i>Characteristics</i>	<i>Preference ranking of buckwheat varieties</i>			
	<i>Mithe</i>	<i>Tito batule</i>	<i>Tito Khisse</i>	<i>Tito chuchhe</i>
1. High yield potential	2	4	2	3
2. Good taste of cooked product	4	1	3	2
3. Tolerant to high rain	4	2	3	2
4. Tolerant to diseases	4	2	3	2
5. Suitable in marginal land	4	2	3	2
Average rank score	3.6	2.2	2.8	2.2
<i>Overall preferences</i>	<i>I</i>	<i>III</i>	<i>II</i>	<i>III</i>

Ranking done in 1-4; 4=most preferred, 1=least preferred (Durpa communities)

We discussed and observed bean diversity in the program VDCs. Bean is generally grown as a mix crop with maize and millet. The crop has a wide range of planting season starting from April to July depending on varieties and the main crop for mix cropping. Varietal mixture is a common practice of growing bean crop as it provides insurance to crop failure and also fulfills multiple preferences for food items. There were two diversity blocks where fourteen collections from four program VDCs was being evaluated. We noticed much duplication in the collections as expressed similar characteristics in leaf shape, stem and petiole, flower at the stage of flowering, however needs further verification through observation of pod and seed characteristics. While discussion with community, there are some other bean varieties/types grown by farmers which are not included in the blocks. It is realized to select seeds of bean varieties

superlatively and establish diversity blocks in the next season as a mixed crop with maize to better understand the diversity, preferences and the field performance under mix cropping practice.

For summary please see in the given table

Data base information on biodiversity block after assessment table-13

SN	Verified bean varieties	Most preferred traits	Less preferred traits
1	<i>Rato sano</i>	Short duration variety, good for dal, nutritious,	Low yield, susceptible to disease and insect, susceptible to frost
2	<i>Rato thulo</i>	Good for <i>cole</i> preparation,	Less palatable, susceptible to drought
3	<i>Seto malya</i>	Short duration variety, adapted to marginal soil, good for dal and cole	Less palatable
4	<i>Kalo malya</i>	High yield, tolerant to drought and cold, good yield	Less palatable
5	<i>Rato malya</i>	Medium duration variety, tolerant to insect pest	Susceptible to cold and drought, less palatable, low yield
6	<i>Kalo sano</i>	Tolerant to drought and cold, tasty and palatable, good yield	Long duration variety,
7	<i>Kalo thulo</i>	Good for dal and cole preparation, high yield, tasty and palatable	Long duration variety
8	<i>Seto sano</i>	Short duration variety, adapted to marginal soil	Susceptible to drought and cold, less palatable
9	<i>Seto golo thulo</i>	High yield, good for cole preparation	Low yield, long duration variety
10	<i>Seto lamo thulo</i>	Good for dal and cole preparation	Low yield, long duration variety
11	<i>Pahelo golo thulo</i>	Good for cole preparation, palatable	Low yield, less tasty, long duration variety

The report on biodiversity block assessment ***data base information on biodiversity block after assessment table-7 to 13 is derived from senior agriculture officer Bharat Bhandari during in assessment of biodiversity block of summer crops (Chino, maize, buck wheat and bean) 2011 August-September***

Production of panicum millet is compiled from two diversity block (Raya and Lali) of 109 square meters and converted it in one hector (10000 meters) and productivity of this crop found 1.28 ton/hector of dried weight. Whereas the base line data of panicum millet was 2.557 ton/hector.

Maize productivity is calculated from 72 square meters of land of one diversity block of Raya. Productivity of maize dried weight is found 0.77 ton/hector where as in base line data it is 0.981 ton/hector. The diversity block of maize is damaged by animals before harvesting that is established in pyusa Kailash middle secondary school. This is due to the school was closed in dashain festival and far from community.

The buck wheat diversity of Durpa is also damaged by domestic animal and production data is recorded from one diversity block of Raya. Productivity is very low calculated from 48 square meter of land, found 0.23 ton/hector where as in base line data it is 2.912 ton/hectors.

Bean diversity productivity is found good with productivity of 2.01 ton/hector where as in base line data it was 1.51 ton/hector. The soil, time of sowing and altitude was better than other crop in diversity block.

Buckwheat sowing time, land type was not good in Raya where as the sowing time, cultivation area for buck wheat was good in Durpa, and unfortunately it was damaged by animal before harvesting.

The site for panicum millet and bean was good in Lali and maize soil type, sowing season of maize was good in pyusa and uncertainly protection could not been before harvesting. The land type was not good in Raya for penicum millet.

Less productivity of this crop may be due to sowing time been the same to all varieties and middle belt (2221 at Lali in west aspect and 2343 meters in east face at Raya) and of farming altitude.

For summary please see in the given table

Data base information on biodiversity block after assessment table-14

Crops in diversity block	Total area in sq meter	Grain yield in kg		Grain yield in kg in hector		Productivity ton/hector		Base line data
		Fresh	Dried	Fresh	Dried	Fresh	Dried	
A. Panicum millet	109	15.82	13.91	1451.38	1276.15	1.45	1.28	2.557
B. Maize	72	8.415	5.55	1168.75	770.83	1.17	0.77	0.981
C. Buckwheat	48	2.16	1.115	450.00	232.29	0.45	0.23	2.912
D. Bean	147	47.47	29.56	3229.25	2010.88	3.23	2.01	1.51

The biomass of these four biodiversity block are illustrated in given table. Please see for your kind information.

For summary please see in the given table

Data base information on biodiversity block after assessment table-15

Crops in diversity block	Total area in sq m	Biomass yield in kg		Biomass yield		Productivity ton/hector	
		Fresh	Dried	Fresh	Dried	Fresh	Dried
A. Panicum millet	109	65	28.13	5963.30	2580.73	5.96	2.581
B. Maize	72	32.6	6.83	4527.78	948.61	4.53	0.949
C. Buckwheat	48	10.19	1.64	2122.92	341.67	2.12	0.342
D. Bean	147	214.29	55.47	14577.55	3773.47	14.58	3.773

The winter season biodiversity block of wheat, naked barley and barley were established in two sites of each crop. The location, sites, altitude, number of collection, base line and verified varieties and farmers are illustrated in the data base information in the table 5 and 6 in beginning. Preference ranking and production data of winter crops (wheat, naked barley and barley) will submit in semiannual report (2012/013). Some assessment work about naked barley and barley crop is given as follows. Wheat variety verification is incomplete and not submitted here due to this work is still being by field staffs. This data also will submit in coming semiannual report.

We found four distinct types of naked barley; kunalo uwa, sesi uwa, takulya uwa and fool uwa. Kunalo uwa is suitable in high altitude and also growing in low altitude areas (aul) in irrigation facility land. The sesi uwa is mostly grown in low altitude areas and some household also growing in high altitude land. Takulya uwa production is found better in low altitude area than high altitude areas. Fool uwa is like kunalo uwa. Production is found good in good management of soil and water. Naked barley (uwa) are cultivated from last week of December to last week of January depending upon soil moisture and altitude. In high altitude and good rain sowing of seed is earlier than normal during last week of December to last week of January and harvesting time is June to July.

For summary please see in the given table

Data base information on biodiversity block after assessment table-16

Naked barley verified varieties	Other name	Crop history	Most preferred traits	Less preferred traits	Cultivation trend in the area
Kunalo uwa	Kunya	Grown from generations	Suitable in high land (lekh bari), need irrigation in low land, mostly grown variety, good taste, easily threading/milling, medium plant height, with long awn and more (2-6) tiller, node color is gray to yellow and wide leaf blade, drought resistant and good for health than other varieties.	Hailstone easily drop down the grain of this varieties	Increasing

Sesi uwa	-	Grown from generation	Growing low land to high land of humla district, production is good in good management of manure and irrigation, node is gray color with medium awn and tiller (1-4), used for snack, making wine, slightly hard than kunalo in threshing and milling and tolerant to drought	Need good management of manure and irrigation to get good production	Increasing
Takulya uwa	-	Grown from generation	Good production in low altitude area, drought, insect/pest resistant and need less manure, early maturing and less husk, node with gray to yellow, green straw with medium height and tiller(1-5). It is used as sesi uwa	Taste is less than kunalo and sesi	increasing
Fool uwa	-	Grown from generation	This is like as kunalo and grain is golden color very easy in threshing and milling, production is medium, the color of grain is like marigold so the name is fool uwa (flower naked barley)	More husk, medium production	same as previous

Kalo(black), thingge, takule and lamle are the four distinct type of barley varieties verified from the biodiversity assessment. All this types are growing from generation in humla district and working areas. Out of three varieties, kalo(black) barley is found in decreasing trend due to traditional thinking. This variety should grow continually who received at first time. If this is not, then there will be of danger in that household. The accident will be in their home when grow and left growing, from this region, more of people do not cultivate this variety. The variety is usually grow as religion and cultural aspect. Thingge jau is growing in both high and low altitude areas and usually more people cultivate in high altitude areas. Most of people are growing lamle jau in high altitude areas than other varieties of barley. The planting season of barley is same as naked barley. Harvesting time is June to July.

For summary please see in the given table

Data base information on biodiversity block after assessment table-17

Barley verified varieties	Other name	Crop history	Most preferred traits	Less preferred traits	Cultivation trend in the area
Kalo jau (black barley)	-	Grown from generation	Using in religion and culture in high class family, traditional saying is this variety need to grow regularly otherwise there will be accident in that house, used in medicinal purpose, this variety is growing in both high and low land, the color of panicle and grain is black with medium awn.	Need to cultivate regularly otherwise there will be accident in that house-traditional thinking	decreasing/disappearing-iwa samgae
Thingge jau	thyangge	Grown from generation	growing in both high and low land of the district, but most of people cultivate in high altitude areas (lekh bari), it is preferred in dry land, with short awn than lamle jau, and medium straw height, good production, good for health, early maturing variety and good in taste, low husk	.	same as previous
Lamle jau	namle	Grown from generation	Growing in high land (lekh/pakho bari) more than other varieties with long awn, more height, big panicles and straw,	Medium in threshing and more husks.	same as previous
Takule	-	Grown from generation	Awn less, grown in high altitude areas, good production, round in grain shape.	not good for health	decreasing

During reporting time, wheat assessment, preference ranking and other production record is being in the working area and still take more time. The wheat assessment, preference ranking and production data of three crops (wheat, naked barley and barley) will place in next year report.

1.3. Strengthened the participatory varietal selection (PVS) and participatory plant breeding programs (PPB) in farming communities.

Under this major activity, completed sub-activities are: ***assess needs and potentiality of PVS and PPB establishment of mother /baby participatory Varietal Selection (PVS) trial in paddy and wheat and field level assessment of crop characterization in mother trial and training on seed supply system and associated knowledge.***

In all sub-activities, 81 male with 48 young male and 77 female with 60 young female of 81 households participated from 11 sites (kharpelgaun, Durpa; Yangchu, Pyusa, Lali; Raya, Gumba/gumbadhara, Thali, Lawer ripa, unapani-aula, and Lekha-gusha) of 4 program VDCs. 102 household benefited from the establishment of mother baby trial (PVS) in paddy and wheat and maize seed support for increasing crop intensity at Kharpelgaun of Kharpunath

In assess needs and potentiality of PVS and PPB sub-activity: This is jointly done during in 1.1 and 1.2 sub section. Beside this, 120 kg of locally produced maize seed distributed to 75 including 21 dalit cooperative members household at Kharpelgaun. This work is done to add and increase maize crop varieties (diversity) and crop intensity after naked barley harvesting.

Although farmers of program area growing crop seed from their tradition, exchange including in their community, village, due to different unseen pest and insect problem, production being decreased. Only one government sector district agriculture development office (DADO) is involved to distribute crop seed (wheat, paddy) from out side the district. Due to high fair cost of cargo and timely not arrived to beneficiaries, SHIP Nepal planned to strengthen participatory varietal selection (PVS) work from the year 2011/012. Out of planned activities, need and assessment on PVS and PPB were done during meeting on establishing community seed bank and follow up seed education class and this year started PVS in paddy (summer season crop) and wheat (winter season crop). 16 kg of two (Machhapuchhre-3 and Lumle-2) varieties of paddy foundation seed improved by LIBIRD brought from Pokhara and established mother trial in 4 different sites of 3 VDCs (Kharpunath, Raya and Sarkideu-Lower Ripa and Unapani) and 16 baby trial in 5 different sites (Kharpu of Kharpunath, Lali-5 of Lali, Raya-3 of Raya, lower Ripa and Unapani of Sarkideu village development committees. 20 kg of 5 line (species) wheat foundation seed purchased from National Research Council, Khumaltar, Kathmandu and established 5 mother and 32 baby trial in wheat crop. 14 male with 9 young male and 18 female with 16 young female were involved in this work. From this, mother baby trial, good varieties of imported one will be identified and will distribute more seed in baby trial for post harvest analysis in coming year. After post harvest analysis in coming year, the good varieties will distribute from coming year. During reporting time, wheat crop harvesting not completed in all site. Some production data of mother trial of paddy ***is presented in the table 21 and 22***

Six field level assessment of crop characterization in paddy mother trial were done in presence of senior agriculture specialist Bharat Bhandari from USC Canada Asia, Pokhara and SHIP Nepal technical staffs. Out of four mother trial, one (at lower Ripa) is damaged by insect due to site selection (site is selected near by jungle). Out of two varieties (Lumle-2 and machhapuchhre-3) brought from Pokhara that were improved by LIBIRD organization: Lumle-2 is found good in production and maturation on time. Efficient result need to find out in coming year after post harvest analysis.

2 days training on seed supply system and associated knowledge was organized at Raya-4 participating from durpa, kharpelgaun, Raya, Karanga, Thai, Ripa and Lekh. 9 male with 5 young male and 13 young female were participated in the training. Senior agriculture officer from Pokhara was facilitated this training. Improvement in traditional seed supply system and associated knowledge, seed improvement practices and important of local crop varieties are the main discussion materials in the training.

This year, 21 kg of tinmase (3 months) local variety of maize seed collected from pyusa and land, farmer selection technical knowledge and seed distribution work has finished improving maize seed from mass selection practice. This seed will be sow in more than 800 square meter land. Remaining seed will distribute to surrounding farmers to minimize cross pollination from other varieties.

For summary please see in the given table

Table number-18

S N	Sub-activities	# of A/days	# of Beneficiaries					Venue
			HHs/sites / VDCs	M	YM	F	YF	
3.1.1	Assess needs and potentiality of PVS and PPB	2	This is jointly done during above 1.1 and 1.2 sub section. Beside this, 120 kg of locally produced maize seed distributed to 75 cooperative members household at Kharpelgaun. Out of 75 household, 21 dalit					Kharpelgaun, Durpa, yanchu, pyusa, Lali, Raya, Thali, Ripa
3.1.2	Established mother /baby participatory Varietal Selection (PVS) trial in paddy and wheat	2	32/7/4	14	9	18	16	Kharpelgaun, Durpa, Lali, Raya, Lower Ripa and Unapani, Lekh-gusha
3.1.3	Field level assessment of crop characterization in Mother Trial	6/1	124/6/4	67	37	57	35	Kharpelgaun, Lali, Raya, Ripa, Unapani, Lekh-Gusha
3.1.4	Training on seed supply system and associated knowledge	1/2	22/7/4	9	5	13	13	Raya-4 from Durpa, Kharpelgaun, Raya, Karanga, Thali, Ripa, Lekh
A	Respondent Number of 3.1.2 to 3.1.4	10/3	178/20/12	90	51	88	64	above sites
B	Actual number 3.1.2 to 3.1.4	10/1-2	158/11/4	81	48	77	60	11 sites of 4 VDCs as above
B	Actual number 3.1.1.	2	75/1/1	-	-	-	-	1 sites of 1 VDC

Data base information about mother baby trial in paddy and wheat

For summary please see in the given table

Data base information of mother baby trial establishment table number-19

Crop	Number of included varieties in mother trial		Location	Altitude in meter	Name of farmers involved in mother trial establishment
	Local	Improved/line			
1. Summer crops					
Paddy	2(Bhuwa and Jaudhan)	2 (Lumle-2, Machhapuchhre-3)	Kharapunath-Kharpelgaun-Kharpujiula	2134	Keshar bahadur shahi
	3(Khachche, chhumrung, churena)	2 same as above	Raya-3, Raya, Nagdhara	2282	Dansing budha
	2(Budhale, improve)	2 same as above	Sarkideu-7, Unapani-Jiula	1775	Mim bahadur phadera
	2(Khetalo, improve)	2 same as above	Sarkideu-1, Ripa	1950	Bijaya phadera
2. Winter crops					
Wheat	2(Pabai, Bhabri)	5(wk-1204, 1481, 1675, 1905, 936)	Kharpu of kharpunath	2115	Pareglal shahi
	2(Auli & piplangi)	5 same as above	Lali of Lali	2321	Lila kumara malla
	1 (Pabai)	5 same as above	Unapani of Sarkideu	1763	Dharma phadera
	1(Pabai)	5 same as above	Gusha of Sarkideu	2619	Shiddakali phadera

For summary please see in the given table

Data base information of mother baby trial establishment table number-20

Details	Mother trial		Baby trial	
	Paddy	wheat	Paddy	Wheat
Trial location number	4	4	5	5
HHs involved	4	4	16	34
Seed quantity per sample (g)	200	200	200	200
Sample size	2-5	5-7	2	2
Local	2-3	0-2	1	1
Improved	2	5	1	1
Plot size (sq m)	6	6	6	6
Length (M)	3	3	3	3
Breath (M)	2	2	2	2

Wheat harvesting is still remaining in some location and detail about the wheat will place in coming semiannual report.

Out of four mother trial in paddy, three were succeed. Machhapuchhre-3 and Lumle-2 varieties improved in western Himalayan region near pokhara site are taken from LIBIRD organization Pokhara. In combined production and productivity of two imported varieties comparing with local varieties, Chumrung is found the best variety which is locally growing improved variety brought from Pokhard developed by Lumle agriculture research centre from last 15 years. Out of two imported varieties, Lumle-2 has better productivity than machhapuchhre-3. The lumle-2 is preferred in Unapani of sarkideu VDC. Chumrung and lumle-2 is comparative varieties at Raya, production of Lumle is 3.65 kg where as 3.7 kg in chumrung variety in 6 square meter of area. Production of machhapuchhre found better in Kharpunath VDC with 2.5 dried weight followed by lumle-2 with 2 kg in 6 square meter of land.

Biomass production found very high in local budhale with 7.33 ton per hector, bikase (improved) with 6.67 ton per hector and khachche and jaudhan varieties with 5.83 ton per hector.

For details please see in the given table

Grain yield of paddy (production and productivity) in mother trial

Data base information of mother baby trial establishment table number-21

SN	Varieties used in mother trial	Total weight from 3 location in kg		Total area in ms	Number of replication by location	Combined production in hector (kg)		Productivity ton/hector	
		Fresh	Dried			Fresh	Dried	Fresh	Dried
1	Machhapuchhre-3	7.5	6.07	18	3	4166.67	3372.22	4.17	3.37
2	Lumle-2	8.31	6.85	18	3	4616.67	3805.56	4.62	3.81
3	Bhuwadhan	3	2.2	6	1	5000.00	3666.67	5.00	3.67
4	Jaudhan	2	1.5	6	1	3333.33	2500.00	3.33	2.50
5	Khachche	1.9	1.6	6	1	3166.67	2666.67	3.17	2.67
6	Chumrung	3.7	3.5	6	1	6166.67	5833.33	6.17	5.83
7	Churena	1.45	1.2	6	1	2416.67	2000.00	2.42	2.00
8	Local-budhale	2.5	2.15	6	1	4166.67	3583.33	4.17	3.58
9	Vikase	2.55	2.25	6	1	4250.00	3750.00	4.25	3.75

Biomass production of paddy in mother trial

Data base information of mother baby trial establishment table number-22

SN	Varieties used in mother trial	Total weight from 3 location in kg		Total area in ms	Number of replication by location	Combined production in hector (kg)		Productivity ton/hector	
		Fresh	Dried			Fresh	Dried	Fresh	Dried
1	Machhapuchhre-3	21.3	10	18	3	11833.33	5555.56	11.83	5.56
2	Lumle-2	22	8.8	18	3	12222.22	4888.89	12.22	4.89
3	Bhuwadhan	4	2.5	6	1	6666.67	4166.67	6.67	4.17
4	Jaudhan	7	3.5	6	1	11666.67	5833.33	11.67	5.83
5	Khachche	10	3.5	6	1	16666.67	5833.33	16.67	5.83
6	Chumrung	3.1	3	6	1	5166.67	5000.00	5.17	5.00
7	Churena	4.5	1.3	6	1	7500.00	2166.67	7.50	2.17
8	Local-budhale	10.05	4.4	6	1	16750.00	7333.33	16.75	7.33
9	Vikase	9	4	6	1	15000.00	6666.67	15.00	6.67

1.4. Supporting and training in agro-technology

Under this, four meeting organized to identify the present status of agriculture tools, their requirement and most required equipment preparation tools for iron smith. 37 male with 18 young male and 23 female with 10 young female were participated in the meeting. After the meeting, 4 set of 7 different types of iron smith requirement to prepare agriculture tools supported at Yangchu of kharpunath, Gopka of Lali, karanga of Raya and upper ripa of Sarkideu VDCs.

For summary please see in the given table

Table number-23

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/ sites / VDCs	M	YM	F		YF
1.4.1	Improve of traditional /local practices on post harvest transformation	4/1	60/4/4	37	18	23	10	Kharpunath- Yangchu, Lali-Gopka, Raya-karanga,, Sarkideu-upper Ripa
1.4.2	Support in new technology transfer	1	4 set 7 different type of iron smith requirement to prepare agriculture tools supported for 4 iron smiths households of Yangch-Kharpunath, Gopka-Lali, Karanga-Raya, Upper ripa-Sarkideu,from this support, they got good and easy agriculture tools preparation materials.					
A	Respondent number 1.4.1	4/1	60/4/4	37	18	23	10	in above
B	Actual number 1.4.1	4/1	60/4/4	37	18	23	10	4 sites
B	Actual number 1.4.2.	-	Supported agriculture equipment making tools to 4 household of 4 program VDCs					

Changed activities under theme-1

1. Instead of ***training in methodologies of farmer-led participatory plant breeding (PPB) and participatory varietal selection (PVS)***, one 2 days training organized on seed supply system and associated knowledge in field as mentioned in 3.1.4.
2. *Seed and diversity fair orientation organized that was not planned in planning.*
3. *Assessment of crop character in biodiversity block is also unplanned sub-activity.*

Activity that can scale up or continue in coming year:

Establishment of biodiversity block, participatory varietal trial are the important and valuable activities to verify diversity of the area and improving crop varieties that we can scale up in coming year. Agriculture equipment making tools support is also found very important to the equipment makers and they also need some model in equipment to improve and SHIP Nepal will provide some equipment in coming year.

Challenges and advantages during implementing program:

1. Due to air cargo problem, delayed in transportation of foundation seed, resulting delayed in seed sowing and transplanting (paddy) which result in production (**seed sowing time was differed 20 days than local**) and ironsmith agriculture equipment preparation tools on time.
2. Some farmers visitor were became ill because of more of participants were female.
3. For establishing biodiversity block and mother trial, farmers reject to provide their good land on time. By this, in some location animals and insect pest damaged the trial work.
4. Initially farmers easily didn't attended for cultural practices (land preparation, wedding) in biodiversity block and mother trial.
5. Farmers didn't give the seed in free of cost (local seed for biodiversity block).
6. Some farmers expect more cost of land that they provided to diversity block and mother trial than usual.
7. In early, difficulties in work due to lack of agriculture based field technician. We replaced the female (Sita shahi non technician) and admitted the junior agriculture technical assistant. (**There is no female technical student in agriculture in the working area**).

Lesson learn

1. We changed the seed purchasing and transportation time earlier than usual.
2. There should be of equal participation of male and female in exposure visit.
3. We learn more about biodiversity block establishment and mother baby trial regarding diversity kit preparation, land/location and farmer selection including motivation of farmers.

2. Climate change adaptation and mitigation

2.1. Strengthening soil and water conservation practices

Under this activity, **orientation on methods and practices of soil and water conservation and support small irrigation & agriculture equipment and seed support (green house production support)** are two accomplished sub-activities.

56 male with 30 young male and 39 female with 20 young female of 95 oriented on methods and practices of soil and water conservation in one day of 4 orientation from 10 sites of four program VCDs. Most of the participants were participated from the location who received fruit sapling. During orientation cultural practices to minimize soil and water erosion in dry and rainy season are the major subject matters discussed. Small irrigation pipe and agriculture equipment/green house plastic and seed were distributed to 127 household to promote home and agro-forestry biodiversity garden in 16 sites of 4 program VDCs.

Land of Humla is steep slope and canal irrigation is very dangerous that sweep out the productive soil and more chance of landslide. More of fertile soil sweep away during huge rainfall during rainy season. In winter and spring time, cultivation land is very drought and serious wind erosion. To strengthen soil and water conservation practices during winter and spring season to produce green vegetables, and irrigate in agro forestry garden (after plantation of fruit sapling and fodder cutting, SHIP N thought to provide small irrigation pipe (HDP and garden pipe) to irrigate winter and spring season crops and control wind erosion. 800 meters of 25 mm HDI pipe purchased and 300 meters (1 roll=30 meters) of 10 roll garden pipe purchased and transported from Nepalgunj to Simikot and distributed for 10 leader farmers. HDP pipe, green house support material including vegetables seeds were distributed to 127 household to establish home and agro forestry garden.

For summary please see in the given table

Table number-24

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/ sites / VDCs	M	YM	F		YF
2.1.1.	Orientation on methods and practices of soil and water conservation	4/1	95/10/4	56	30	39	20	Kharpelgaun from kharpelgaun, takla/bamta, Lali from Lali, Gopka, Raya from gumba and Raya and Ripa from both ripa, unapani, lekha
2.1.2.	Support small irrigation & agriculture equipment and seed support	-	800 meters of 25 mm HDI pipe purchased at Nepalgunj and transported and distributed to Durpa of Kharpunath, Gumba of Raya, Ripa of Sarkideu irrigation pipe and other seed and green house construction material in a sites of 4 program VDCs) for establishing home and agro forestry garden to 127 households					
A	Respondent number	4/1	95/10/4	56	30	39	20	In above sites and VDCs
B	Actual number 2.1.1	4/1	95/10/4	56	30	39	20	from 10 sites of above
B	Actual number 2.1.2	-	to 127 household of all 16 sites of 4 program VDCs					

2.2. Increased in crop diversification and improved in cropping pattern

Under this activity, **FGD on wellbeing ranking, cropping pattern and Safe family toilet construction material support** are two accomplished sub-activities. 56 male with 18 young male and 47 female with 15 young female of 103 households were participated in one day of 16 focus group discussion in 16 sites of four program VDCs. 167 safe family toilet construction material supported to 167 households of 2 sites of one (Kharpunath) VDC.

Small focus group discussion were done on wellbeing ranking, cropping pattern and cropping calendar instead of meeting for the study of cropping system and associated knowledge. 56 male with 18 young and 47 female with 15 young female from 103 household of 16 sites of four program VDCs. The result of this sub-activity is presented in earlier [4.1. M&E and collecting baseline data:](#)

Safe family toilet construction material support helped people to make household sanitation situation in clean checking contaminated diseases. 167 safe family toilet construction material supported at Khapunath out of total 102 were from district drinking water supply office and VDC budget in coordination of SHIP Nepal and constructed all toilet. 2 meter outlet pipe, toilet sheet and 16.67 kg of cement and skill labor cost rupees 300/- were supported for one toilet. Pit preparation, building construction and material transportation from Simikot to beneficiaries site work is done by community people. All management in social mobilization and material purchasing part taken and follow up were done by SHIP Nepal in toilet construction work. The toilet construction work will help in keeping people health in good condition and safe toileting time which help in soil and water conservation practices. The Kharpunath VDC is formally declared as ODF (open defecation free) area in presence of political party leader, Nepali congress central member Jivan bdr shahi and other official representative and VDC secretary.

For summary please see in the given table

Table number-25

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/ sites / VDCs	M	YM	F		YF
2.2.1.	FGD on wellbeing ranking, cropping pattern	16/1	103/16/4	56	18	47	15	All 16 sites of 4 program VDCs
2.2.2.	Safe family toilet construction material support	-	167 safe family toilet construction material supported at Khapunath (takla/bamta and Kharpelgaun sites) out of total 102 were from district drinking water supply office and VDC budget in coordination with SHIP Nepal and constructed 167 safe family toilet and the VDC is declared as ODF (open defecation free) area.					
A	Respondent number 2.1.3	16/1	103/16/4	56	18	47	15	All 16 sites of 4 VDCs
B	Actual number 2.2.1	16/1	103/16/4	56	18	47	15	All 16 sites of 4 VDCs
B	Actual number 2.2.2.	-	167 household at 2 sites of Kharpunath VDC					

2.3. Promoting agro-forestry and forestation in target communities

Under this activity, **Initiation of to develop agro-forestry model garden with plantation of fruit, fodder, vegetables, herbal; establishment of nursery and install low fuel consumption ICS to improve health & environment** are three accomplished sub-activities. 100 households of 10 sites of 4 VDCs involved in these sub-activities.

Deforestation is serious problem in SHIP Nepal working area and 60% of cultivated land is in steep slop and more of soil erosion during huge rainfall and severe drought during winter and spring season.

This year, Initiation of to develop agro-forestry model garden with plantation of fruit, fodder, vegetables, herbal and transplanted 1164 temperate fruit sapling in 44 house holds. Established 4 nurseries and produced 2783 fruit/root stock (395 local peach , 1585 edi mail (rootstock for apple), 265 soft type walnut, 105 hard type walnut, 200 apple, wild apricot 233). Out of the total fruit sapling, 528 (125 soft type walnut and 233 wild apricot and 170 apple) are transplanted in agro-forestry model garden sapling produced from the local nurseries, and 5.8 kg of different vegetables (Radish-4 kg, cabbage-0.4 kg, carrot -0.4 kg and coriander-1kg) seed were distributed them for trial at Takla/bamta, Kharpelgaun of Kharpunath, Lali, Gopka of Lali, Gumba of Raya and Ripa of Sarkideu VDCs

Support in low fuel consumption, installation of improved cook stove (ICS) is the regular sub activities 60 ICS ordered, constructed and transported from Nepalgunj to Simikot and distributed. This year, out of 60 ICS, 30 are distributed to Dalit cast regarding last three years report. The ICS is distributed in 60% of total cost to dalit, 75% of total cost to other cast except transportation.

For summary please see in the given table number 26 (a), (b) and (c)

Table number-26(a)

S N	Sub-activities	Details of implemented activities and out put
1.	Initiation of to develop agro-forestry model garden with plantation of fruit, fodder, vegetables, herbal	Transplanted 1164 temperate fruit sapling in 44 house holds out of this, 429 are transplanted from the program area nurseries and 5.8 kg of different vegetables (Radish-4 kg, cabbage-0.4 kg, carrot -0.4 kg and coriander-1kg) seed were distributed them for trial at Takla/bamta, Kharpelgaun of Kharpunath, Lali, Gopka of Lali, Raya, karanga, Gumba of Raya and Ripa of Sarkideu VDCs
2.	Establishment of nursery	Established 4 nurseries and produced 2783 fruit/root stock (395 local peach , 1585 edi mail (rootstock for apple), 265 soft type walnut, 105 hard type walnut, 200 apple, wild apricot 233). Out of these, 528 (125 soft type walnut and 233 wild apricot and 170 apple) transplanted in agro-forestry model garden.
3.	Install low fuel consumption ICS to improve health & environment	Installed 60 ICS in 60 households and out of 60 ICS, 30 installed in Dalit households regarding last three years report in 10 sites
A	Respondent HHs of 2.3.1.+2.3.1.+2.3.3.	108 household of 8 sites of four VDCs (44 HHs in fruit plantation, 4 HHs in nursery establishment, 60 HHs in ICS)
B	Actual HHs of 2.3.1.+2.3.1.+2.3.3	100 household of 10 sites of four VDCs

Establishment of agro-forestry model garden

Table number-26(b)

Details	Kharpunath	Lali	Raya	Sarkideu	Total
Total HHs involved	10	9	18	7	44
Dalit	5	3	0	1	9
Ethnic	0	4	13	0	17
Chhetri/bramhin	3	0	1	6	10
Thakuri	2	2	4	0	8
Total fruit plantation	259	244	491	170	1164
Apple	183	168	285	170	806
Wild apricot	26	27	180	0	233
Soft walnut	50	49	26	0	125

Agro-forestry nursery establishment details

Table number-26(c)

Details	Kharpunath	Lali	Raya	Sarkideu	Total
Edimail (apple rootstock)	375	650	0	560	1585
Apple sapling	0	0	0	200	200
Wild apricot	233	0	0	0	233
Soft walnut	125	140	0	0	265
Hard type walnut	105	0	0	0	105
Local peach (peach rootstock)	95	300	0	0	395
Total sapling produced	933	1090	0	760	2783
Sapling transplanted from the nursery	358	0	0	170	528
Number of nursery	1	2	0	1	4

Changed sub-activity under theme-2

Small focus group discussion on wellbeing ranking, cropping pattern and cropping calendar preparation did instead of meeting for the study of cropping system and associated knowledge

Activities that can scale up or continue in coming year

1. Establishment of agro-forestry garden in presence of SHIP N field staffs.
2. Establishment of nursery with cutting of fodder, forest including fruit grafting.
3. More of toilet construction and ICS instillation in group/site base not in scattered.

Challenge and advantages under theme-2

1. Air transportation problem also raised carrying ICS, toilet construction materials, irrigation pipe on time from Nepalgunj to Simikot.
2. Farmers did not transplanted the fruit sapling in agro forestry garden as we advised (not well dig the pit and recommended space) and planted at one site together by the benefited household someone planted one site and other planted in other site which create problem in supporting irrigation.
3. Farmers did not plant the cutting of fodder and tree (papal, bains, mulberry) in their fruit plantation garden this left to make an agro-forestry garden. Farmers did not get the mother plant easily and difficult to survive easily due to dry area and they demand prepared cutting. In next year, cutting will prepare and transplant in fruit plantation garden.

Lesson learned

1. We need to prepare sapling plantation pit in presence of our eye then supply the fruit sapling.
2. Cutting of fodder, forest plant should prepare in nursery and supply to the grower to make the complete agro-forestry garden in coming year
3. We need to give some incentive to nursery man sending in exposure visit, nursery equipment to establish the nursery.
4. Training and support activities in parallel way will effective to achieve the result.

3. Rural economy and support to farmer organizations

3.1. Increased and improved capacity of rural community in micro-enterprise, financial management and marketing

Under this activity, **meeting with micro-entrepreneurs for possible agro product marketing and support community biodiversity development fund to 4 cooperatives** are two accomplished sub-activities. 85 male with 60 young male and 28 female with 21 young female of 113 households were participated in one day micro-entrepreneurs meeting in 4 sites from 12 sites of four program VCDs. 121 male members with 44 young male and 81 female members with 27 young female of 202 household from 4 cooperatives received community biodiversity development fund at Kharpelgaun, Durpa of Kharpunath; Pyusa of Lali and Unapani of Sarkideu VDCs from 5 sites of 4 program VDCs.

During meeting, present status of micro enterprises identified and discussed on possible agro marketing product of the area. Most of the small entrepreneurs are selling exported packing materials (noodles, China alcohol, cigarettes, bubble gum, sweets). Even in hotel no local product food sells in their hotel. They sell exported rice food in the hotels. Bean, hot chilly are the product they selling personally carrying 3-7 days walking by back and sheep/goat at China boarder (Taklakot) and 1-2 days at district head quarter Simikot. They aware on selling their agriculture product in the hotels and they were received advised from SHIP staff to start selling their agriculture product in value adding through agriculture cooperatives.

SHIP Nepal provided 2, 00,000/- NRs (50,000/- NRs to each coop) to 4 organic agriculture cooperatives as community bio-diversity conservation fund. Agreements were done with cooperative representatives to mobilize the fund. The fund is balanced in cooperative AC bank at Simikot and this will mobilize as loan to cooperative members to conserve local land races and other income generating activities (purchasing seed, agriculture tools/labor and keeping daily requirement shopping materials-salt, shoes, copy, ball pen etc).

For summary please see in the given table number-27

Table number-27

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/sites/VDCs	M	YM	F		YF
3.1.1	Meeting with micro-entrepreneurs for possible agro product marketing	4/1	113/12/4	85	60	28	21	Kharpelgaun, Lali, Raya, Thali, Ripa from 12 sites
3.1.2	Support community biodiversity development fund to 4 cooperatives	-	202/5/3	121	44	81	27	Durpa, Kharpelgaun, pyusa and Unapani-aula & lekh
A	Respondent number	4/1	315/17/8	206	104	109	48	17 sites
B	Actual number	4/1	113/8/4	85	60	28	21	8 sites
B	Actual number	4	202/7/4	121	44	81	27	5 sites

3.2. Strengthening capacity of groups/cooperatives

Under this activity, **account keeping and management training, meeting with groups for cooperative registration and support to 2 coops (68HHs) and supported stationary to 7 cooperatives** are three accomplished sub-activities. 78 male with 43 young male and 46 female with 31 young female of 124 households were participated in these sub-activities from 8 sites of four program VCDs.

218 male members with 57 young male and 105 female with 39 young female of 316 households received stationary support to 7 cooperatives in 10 sites of four program VDCs

During training/meeting, initially, review of cooperative/groups in progress, problem and further improvement including cooperative/group mobilization/management and accounting system and importance of cooperatives and groups are the major subject matter discussed.

4 days account keeping training was held at simikot from durpa, kharpelgaun, pyusa, gopka, raya and ripa communities/sites. The cooperative registration meetings were held at yangchu, gopka, karanga and ripa and after meeting gopka and ripa sites community involved and registered 2 cooperatives with members of 63 including 13 female of 63 household from 3 sites (gopka, upper and lower ripa) of 2 program VDCs.

For summary please see in the given table number-28

Table number-28

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/sites/VDCs	M	YM	F		YF
3.2.1	Account keeping and management training	1/4	17/6/4	13	12	4	4	At Simkot from Durpa, Kharpelgaun, Pyusa, Gopka, Raya, Ripa
3.2.2	Meeting with groups for cooperative registration and support to 2 coops (68HHs).	1/1	107/5/4	65	31	42	27	Yangchu, Gopka, Karanga, Ripa
3.2.3	Supported stationary to 7 cooperatives	1	316/11/4	218	57	105	39	Durpa, khapelgaun, pyusha, Gopka, Raya, Ripa both, Unapani, Lekh
A	Respondent number 3.2.1. & 3.2.2.		124/11/8	78	43	46	31	as above both
B	Actual number 3.2.1. & 3.2.2.	2/1-4	124/8/4	78	43	46	31	8 sites of 4 VDCs
B	Actual number of 3.2.3.	1	316/10/4	218	57	105	39	10 sites of 4 VDCs

3.3. Established income generation opportunities in farming communities

Under this activity, **support to establish hotel garden for eco – tourism development and tailoring for skill development for generating income source** and benefited 6 hotels and 4 tailoring from the support of 5 sites in 3 programs VDC. 6 male with 4 young male and 4 female with 2 young female were involved in the action.

They got support seed, technical support and hotel environment improvement through establishing home garden and toilet. In this year, to recognize the hotel of foot trail as organic and ecotourism concept, 6 hotels established display board keeping information about the organic concept of selling items in the hotels. Similarly, 4 tailoring got support information display board about their tailoring activities. **For summary please see in the given table number-29**

Table number-29

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/sites/ VDCs	M	YM	F		YF
3.3.1	Support to establish hotel garden for eco – tourism development and tailoring for skill development to generating income	6 hotels+4 tailoring	10/5/3	6	4	4	2	Kharpunath, Pyusa, Lekh, Unapani
A	Respondent number	6 hotels+4 tailoring	10/5/3	6	4	4	2	Kharpunath, Pyusa, Lekh, Unapani
B	Actual number	6 hotels+4 tailoring	10/5/3	6	4	4	2	Kharpunath, Pyusa, Lekh, Unapani

Changed sub-activity under theme-3

Actually there is no changed in activities and sub-activities.

Activities that can scale up or continue in coming year

1. Community people are happy in supporting **community biodiversity conservation fund** which is supportive activities to do income generating activities like purchasing goat/sheep adding animal diversity in their home taking loan, female are more encouraging with this fund, they attract to involve in meeting and group/cooperatives.
2. Promoting hotel supporting hotel environment improvement activities including income generating activities- **Hotel at lipne-sarkideu is very good in maintaining and managing hotel environment after SHIP-Nepal support and hotel of bhatte kami and birbale bhandari at Kharpu.** In most hotel at karnali river bank in program area, green vegetable can get during in winter season after our intervention.

Challenge and advantages under theme-3

1. Even in saving collection, members themselves still not conscious regular saving, treasure, secretary and chair person involve collecting the saving.
2. Groups are not active and regular meeting not held in cooperative and groups
3. Female participation in members and leadership position still poor in some cooperative and groups
4. Regular meeting, group/cooperative rule and regulation need to be prepared for group/cooperative and saving collection/fund mobilization.
5. Income generation activities are still poor in cooperatives.

Lesson learned

1. Regular meeting/follow up is required by SHIP Nepal field staff once in a moth in every group/cooperatives from coming year.
2. Need to prepare proper saving/fund collection, mobilization and regular participation in group/cooperatives, encouraging the members
3. Female participation should be increased in membership and leadership position through supportive activities.
4. Income generating activities should lunch or supportive activities in agro-based income generation-**value adding and marketing support.**

4. Gender equality

4.1. Increase women participation in SHIPN program

Under this activities, three sub-activities are accomplished namely- **Agro-biodiversity conservation leadership training to women farmers, Post harvest losses and storage orientation, Support in electrical oil processing machine.** 49 male with 32 young male and 58 female with 42 young female were participated in the training and orientation meeting from 10 sites of 4 program VDCs. 255 household of Kharpunath VDC from four sites will be benefited from electrical oil expelling machine. *(The machine is remaining to transport from Nepalgunj to simikot due to cargo delay)*

3 days agro-biodiversity women leadership training conducted in district head quarter to increase the women number in SHIP N program. All the participants were from cooperatives and initially review of women participation in their cooperative were done. Number of women participation found minimum in each cooperatives. Importance of agro-biodiversity conservation work, destroying of agro-biodiversity, conservation measures and women role in conservation of agro-biodiversity including forest biodiversity, role of leader to increase women participation in every field level SHIP Nepal work are the major discussion tools. After the training they got support seed and irrigation pipe to establish home garden biodiversity for increasing healthy food and income. Trainees were aware and committed to increase women participation in SHIP Nepal agro-biodiversity conservation work in their group and cooperatives.

One day four site wise orientation meeting held in post harvest losses and storages system, 46 male with 32 young male and 49 female with 32 young female 95 households were participated in the orientation in durpa, pyusa, thali and lipne from upper and lower ripa, unapani-aula and lekha.

During orientation, post harvest practices at harvesting, transporting from field to home, threshing/milling and storage system followed by farmers and additional information to improve their practices are the subject matter discussed.

Support in electrical oil processing machine is another important sub-activity to increase women number in SHIP Nepal (USCC) sponsor activities. The machine ordered and left to transport from Nepalgunj to simikot. Kharpunth is the selected VDC due to electrical facility and will be benefitted 255 households out of 278 HHs in the VDC. Previously supported manually operated machine is in operation and this is not sufficient to all household.

For summary please see in the given table number-30

Table number-30

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/sites/ VDCs	M	YM	F		YF
4.1.1	Agro-biodiversity conservation leadership training to women farmers <i>(all participants are women)</i>	1/3	26/8/4	0	0	26	18	At Simkot from Durpa, Kharpelgaun, Pyusa, Raya, Karanga, Thali, Ripa, Unapani
4.1.2	Post harvest losses and storage orientation	4/1	95/7/4	46	32	49	32	Durpa, pyusa, Thali, Lipne from upper and lower ripa, unapani, lekha
4.1.3	Support in electrical oil processing machine	1	255/4/1	-	-	-	-	All 4 sites of Kharpunath VDCs
A	Respondent number 4.1.1. and 4.1.2	6/4	121/15/8	46	32	75	50	15 sites of 8 VDCs
B	Actual number of 4.1.1. & 4.1.2.	5/1-3	107/10/4	49	32	58	42	10 sites of 4 VDCs
B	Actual number of 4.1.3.	1	255/4/1	-	-	-	-	All 4 sites of Kharpunath VDC

4.2. Support women-led agricultural production activities

Under this activity, **Discussion meeting for against traditional monthly period of women Support women farmers in improving home garden biodiversity for increased healthy food income.** 45 male with 34 young male and 75 female with 53 young female participated in discussion meeting and 275 household (including male, female and ethnic, dalit, other cast) received seeds of diverse vegetables in 14 sites of 4 program VDCs.

To increase women participation in SHIP N program areas through supporting women-led agriculture production activities and leadership training to women on agro-biodiversity conservation and promotion. Four field level one day meeting were conducted in four different location where women are culturally and traditionally bias to inter in their home during minsuration period. The meetings were conducted at Kharpelgaun of Kharpunath, pyusa of Lali, Karanga of Raya and Unapani of Sarkideu VDCs. These are the major area where women are leaving out side the home for 3 to 5 days during that period. The period is very crucial during rainy and winter season and women felt hard, 5 to 10 women leave in together during that period and no good cooking/sitting/sleeping and meeting place. In other side, conventional thinking is very high in shahi/thakuri family than chhetri and other cast (dalit and ethnic). The meeting were done to change in negative thinking and improve women health situation through improving their sitting place and bring them positive thinking to learn agro-biodiversity conservation when they gathered together at the minsuration period.

During meeting, present situation of women, their concept about minsuration period, further improvement in the period are the major subject discussed. According to their traditional thinking, when they inter/live inside their home during the period, god will angry and they will ill. They don not touch the any seed during this period and when they touch the seed, it will not germinate and during flowering stage, when the go in the field, fruiting will not occur in plant. Adequate and good sitting and sleeping place, clean drinking water and toilet facilities are necessities to improve women health. and more orientation and sensitization need to change conventional thinking of the people.

Support women farmers for improving home garden biodiversity to increase healthy food income is next sub-activity to increase female number in SHIP Nepal sponsor activity. 30 kg of winter and summer vegetables seed distributed to 275 households covering from dalit, ethnic and other including female led household(**most of women are involved in the agriculture activities**). 75% of seed is distributed in running summers and production record will come in coming midterm report. Tomato -1, onion-1 varieties and cucumber, bottle gourd, chayote-a kind of fruit vegetable, taro, cow pea-2, okra are new varieties introduced in this year.

For summary please see in the given table number-31

Table number-31

S N	Sub-activities	# of A/days	# of Beneficiaries				Venue	
			HHs/ sites/VDCs	M	YM	F		YF
4.2.1	Discussion meeting for against traditional monthly period of women	4/1	120/4/4	45	34	75	53	Kharpelgaun, Pyusa, Karanga, Unapani,
4.2.2	Support women farmers in improving home garden biodiversity for increased healthy food income	1	275/14/4	-	-	-	-	Takla/bamta, Durpa, Kharpelgaun, yangchu, Pyusa, Lali, Gopka, Raya, Karanga, Thali, Ripa both and Unapani, lekha
A	Respondent number of 4.2.1.	4/1	120/4/4	45	34	75	53	Kharpelgaun, Pyusa, Karanga, Unapani
B	Actual number of 4.2.1.	4/1	120/4/4	45	34	75	53	Kharpelgaun, Pyusa, Karanga, Unapani
B	Actual number of 4.2.2.	1	275/14/4	-	-	-	-	14 sites of above 4.2.2.

Changed sub-activity under theme-4

In planning supporting in chiono processing machine was planned we did to support in electrical oil expelling machine due to demand from community sites and VDC of the program area also helped in this sub-activity in building construction at Kharpelgaun of Kharpunath VDC and chiono processing machine will support in 2012-013 program at Lali.

Activities that can scale up or continue in coming year

1. Supporting in crop processing (chiono husking and wheat threshing) and oil expelling machine in all site where their is being construction of hydropower at local level to minimize the work load specially female
2. Promotion of home garden for better nutritious food (vegetables) production and income generation to female farmers

Challenge and advantages under theme-4

1. Demand is very high about crop processing (de-husking, threshing of wheat) from other site of the program areas.
2. Female participation is still less in development activities (qualitative participation) due to their work load working in farming land -land preparation, seed sowing, harvesting, threshing, milling, and cooking and mostly in threshing of wheat and de-husking of chiono, finger millet and paddy and oil expelling.
3. More insect pest seen in cultivated vegetables crop supported to home garden promotion and supported irrigation pipe including other agriculture tools are insufficient as the number of population is high.
4. There is market problem to sell their product-long journey to carry at bazaar, only transportation/porter cost will get when they take at market.

Lesson learned

1. We did support in home garden promotion at scattered way, we supplied the seeds of vegetables to all member of cooperative according to their demand. From next time, we do in focus group.
2. We increase the number of female in members of cooperatives and groups to support home garden and processing equipment/machine.
3. Site selection to support in home garden promotion is important.

5. Spreading of USC program (includes Young farmers

5.1. Increase engagement of young farmers & stake holder in Agro Biodiversity conservation

In this activity, **meeting on young farmer present status and their role in agro-biodiversity conservation; school arboretum establish(School biodiversity garden) at two location; meeting with community development committee (CDC); agro-biodiversity management & climate change assessment workshop and review and planning meeting with CBO and stakeholders** are the sub-activities accomplished. 56 male with 38 young male and 53 female with 43 young female from 16 sites of 4 program VDCs from the implemented sub-activities and 316 boy and 282 girls 319 households of 3 schools (Naudhara secondary school, Durpa, Mandhara primary school, Kharpelgaun and Humla secondary school, Raya) of 2 program VDCs got support agriculture tools/equipment, toilet construction materials and vegetables seed to improve school environment through developing school biodiversity garden (arboretums). Record keeping of plant diversity from school compound and name plate and

information display board installed in naudhara and Humla secondary schools of Kharpunath and Raya VDCs.

To establish school biodiversity garden, a set of agriculture equipment distributed in two schools at Hilsa naudhara Durpa middle secondary school of Kharpunath and a set of agriculture equipment and 3 set of toilet construction material supported at Humla middle secondary school of Raya VDC. Diversity kit of four vegetables (Radish, cabbage, carrot and coriander) seed also distributed to establish school biodiversity garden. Information of different plants were collected and 2 display boards and 89 name plates tagged in important plants to understand information of their uses to all. And another one mandhara primary school at Kharpelgaun, Kharpunath constructed 2 toilets. SHIP N supported 2 set of toilet construction materials (outlet pipe, pan and cement) including skill labor cost. All material transportation and construction work done from users.

One day community development committee interaction meeting held at district head quarter Simikot. Durpa, Kharpelgaun, Pyusa, Gopka, Raya, Ripa, Unapani community leader persons were involved in the meeting. During meeting, initially, implemented program activities review, problem during implementation and supervision, solving method and further improvement of program activities were the discussion materials.

2 days agro-biodiversity management & climate change assessment workshop held at simikot from Durpa, Kharpelgaun, Pyusa, Lali, Raya, Thali, Ripa, Unapani, Lekh. 9 male with 7 young male and 11 female with 8 young female were participated in the workshop. The workshop is done to collect information on climate change, its effect in agriculture production, livestock, human life, cropping pattern and system and climate change status of the area in present and before 10 to 20 years. After information collect on climate change, sharing of this information with line agencies will be done in coming year program. The workshop was done in presence of senior agriculture specialist Bharat Bhandari from UCS Canada Asia Pokhara.

2 days program review and planning meeting held at simikot with district stake holders and member of CBOs (community development committees and cooperatives-chairs, secretary, treasure and leader farmers) members were participated in the workshops. 18 male with 13 young male and 4 young female from 22 household from kharpelgaun, durpa, pyusa, gopka, raya, thali, upper ripa and unapani of 4 program VDCs. Besides this 8 stakeholders (3 government and 5 NGOs) also involved in the review meeting.

Workout in review of implemented activities (progress, problem/challenges, and their effort to solve problem/challenges) and recommendation and program planning guideline for the year 2012-013 were prepared in the review meeting.

For summary please see in the given table number-32

Table number-32

S N	Sub-activities	No of A/days	# of Beneficiaries				Venue	
			HHs/sites/VDCs	M	YM	F		YF
5.1.1	Meeting on young farmer present status and their role in agro-biodiversity conservation	4/1	101/16/4	47	33	54	40	At Kharpelgaun from 4 sites, at Lali from 4 sites, at Raya from 4 sites and at Lipne from 4 sites.
5.1.2	School arboretum establish(School biodiversity garden) at two location		A set of agriculture equipment distributed in two schools at Hilsa naudhara Durpa middle secondary school and a set of agriculture equipment and 3 set of toilet construction material supported at Humla middle secondary school Raya. Diversity kit of four vegetables (Radish, cabbage, carrot and coriander) seed also distributed to establish school biodiversity garden. Information of different plants were collected and 2 display boards and 89 name plates tagged in important plants to understand information of their uses to all. And another one mandhara primary school at Kharpelgaun, Kharpunath constructed 2 toilets SHIP N supported 2 set of toilet construction materials (outlet pipe, pan and cement),					
5.1.3	Meeting with community development committee (CDC)	1/1	21/7/4	18	11	3	3	At Simkot from Durpa, Kharpelgaun, Pyusa, Gopka, Raya, Ripa, Unapani,

5.1.4	Agro-Biodiversity Management & Climate change Assessment Workshop	1/2	20/9/4	9	7	11	8	At Simkot from Durpa, Kharpelgaum, Pyusa, Lali, Raya, Thali, Ripa, Unapani, Lekh
5.1.5	Review and planning meeting with CBO and stakeholders	1/2	22/9/5	18	13	4	4	At Simkot from <i>kharpelgaun, durpa, pyusa, gopka, raya, thali, upper ripa and unapani</i> and related stakeholder and VDCs secretary of simikot and 4 program areas.
A	Respondent number of 5.1.1. 5.1.3. 5.1.4. 5.1.5.	7/6	164/41/17	92	64	72	55	All above sites of 5.1.1. 5.1.3. 5.1.4. 5.1.5.
B	Actual number of 5.1.1. 5.1.3. 5.1.4. 5.1.5.	7/1-2	109/16/4	56	38	53	43	16 sites of 4 program VDCs as above 5.1.1. 5.1.3. 5.1.4. 5.1.5.
B	Actual number of 5.1.2.	3	319/6/2	316	316	282	282	6 sites of 2 VDCs of 5.1.2.

Changed sub-activity under theme-5

1. 2 days agro-biodiversity management and climate change assessment workshop done for SHIP N staff and leader farmers of program VDCs instead of **agro-biodiversity management and climate change, mitigation and adaptation workshop** for district stake holders and community leader were as planned.
2. Instead of 8 meeting with young farmers for biodiversity conservation we conducted 4 meeting on young farmer present status and their role in agro-biodiversity conservation

Activities that can scale up or continue in coming year

1. School biodiversity garden support is the important sub-activities to engage school young in biodiversity conservation work.
2. Review meeting with district stakeholders and CBOs to share, upgrade and spread out the biodiversity conservation and climate change, adaptation and mitigation work.

Challenge and advantages under theme-5

1. Due to temporary residential in school, and open grazing system, plantation work is damaged by the domestic animals in school biodiversity support program.
2. Demands of schools are very high to protect diversity garden-**protection wall/wire fencing, irrigation and school building/furniture/toilet** support and incentive to the disadvantage student.
3. Need of higher level training/exposure visit to the students/teachers

Lesson learned

1. Site selection is important to establish school biodiversity garden.
2. Community mobilization is another important part to protect transplanted seedling/plant.
3. Interaction between students/teachers and community people is important aspect to achieve better result from the school biodiversity garden support activities.

5. Analysis of out-comes according to base line data

1. Seed supply systems and diversification of plant genetic resources

Anticipated Outcome Result

- ➔ *Enhanced food security,*
- ➔ *Diversity and security of farmer-based seed supply systems increased and improved*

Key Indicators

- 1.1 Number of households with sufficient food production
- 1.2 Number of **communities** with enhanced plant genetic resources
- 1.3 Number of **households** with **seed supply systems** that can respond to seasonal climate variations
- 1.4 Number of **households** reporting an **increase in seed security** (there is enough of the required quantity, quality, and diversity of seed and planting materials for seasonal needs).
- 1.5 Number of **households** reporting an **increase in inter-specific diversity (between crop species)** and in **intra-specific crop diversity (within crop species)**
- 1.6 Change in **inter-specific diversity** and in **intra-specific crop diversity** in SHIP N program (all participating communities combined).

Achieved result (key indicator) for above (for supportive data please see in given annex in blue number/%)

- 1.1 8.43% (107 out of 1268 total) household increased food security medium from poor and 5.83% (74 out of 1268 total) household increased food security high from medium level. Increments are found 10 to 35 days. The data were derived from simple format with those farmers who have received seeds of maize, paddy, vegetable, including green house and irrigation pipe. **For details please see in Annex-1**
- 1.2 **Continue in 16 communities of 4 VDCs**
- 1.3 6.78% (86 out of 1268 total household) household with self seed sufficiency in cereal paddy and maize, 4.88% (62 out of 1268 total household) household with self seed sufficiency in vegetables and 0.24% (3 out of 1268 total household) household with self seed sufficiency in oil seed (mustard crop). **For details please see in Annex-2**
- 1.4 6.78% (86 out of 1268 total household) household with medium seed security in cereal paddy and maize; 4.88% (62 out of 1268 total household) household in vegetables and 0.24% (3 out of 1268 total household) household in oil seed (mustard crop) from poor.

For details please see in Annex-2

- 1.5 Inter-specific & intra-specific diversity growing HHs increased by % in given table.

For details please see in Annex-3

Crop	Types/species-number	Increased household %	Location/sites
Cereals	Paddy-2, wheat-5 lines, maize-1	10.33	11
Vegetables	Cucumber-1, tomato-1, onion-1, bottle gourd-1, okra-1; cowpea-2, broad bean-1 (<i>these are also included in legume</i>)	8.99	15
Spices	Hot pepper-2	0.78	4
Legumes	cowpea-2, broad bean-1, soybean-1	2.60	11
Oil seed	mustard-1, walnut-1 (<i>this is also included in fruit</i>)	2.68	8
Fruits			
Apple	Apple-2	3.39	9
Walnut	wall nut-1	2.36	6
Other fruits	Wild apricot-1	2.68	7
Herbal	Atish	6.073	8

1.6 Diversity increased in above target household in (2.1.5) and diversity are increased in variety level please see in **given summary table**. **For details please see in Annex-3**

Crop	Types in base line	Crop type increased in progress year	Total varieties/lines increased
Cereals	9	Paddy-2, maize-1 varieties; and wheat-5 L	3 varieties/5 (L-lines)
Vegetables	11	Cucumber-1, tomato-1, onion-1, bottle gourd-1, okra-1, cowpea-2, broad bean-1	8
Potato	1	Not planned	0
Spices	8	Hot pepper-2	2
Legumes	6	cowpea-2, broad bean-1, soybean-1	4
Oil seed	9	Mustard-1, walnut-1	2
Fruits	8		
Apple		Apple-2	2
Walnut		wal nut-1	1
Other fruits		Wild apricot-1	1
Herbal	2	Atish	1

Annexes of the out-comes of the theme-1

Annex-1

Details	Kharpunath			Lali			Raya			Sarkideu			Total		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Cereal crop															
Rice production in (Mt)	0.04	0.02	0.05	0	0.06	0.06	0.1	0	0.1	0.1	0.1	0.22	0.21	0.2	0.43
Number of HHs	1	2	3	0	1	1	5	0	5	6	5	11	12	8	20
Maize production (Mt)	0.56	0.66	1.23	0	0	0	0	0	0	0	0	0	0.56	0.7	1.23
Number of HHs	44	31	75	0	0	0	0	0	0	0	0	0	44	31	75
Total production in metric ton	0.6	0.68	1.28	0	0.06	0.06	0.1	0	0.1	0.1	0.1	0.22	0.77	0.9	1.65
Total respondent household	45	30	75	0	1	1	5	0	5	6	5	11	56	36	92
Actual household number	45	28	72	0	0	0	0	0	0	0	0	0	44	28	72
Vegetables crop															
Production in (Mt)	1.94	0.9	2.84	1	0.5	1.84	0.7	1	1.3	0.7	1.3	1.94	4.7	3.2	7.92
Number of household	36	14	50	22	10	32	12	8	20	18	16	34	88	48	136
Total production both-rice + vegetable	2.54	1.58	4.12	1	0.56	1.9	0.8	1	1.4	0.8	1.4	2.16	5.47	4.1	9.57
Total respondent HHs	81	44	125	22	11	33	17	8	25	24	21	45	144	84	228
Total actual household number	49	38	87	22	10	32	15	8	23	21	18	39	107	74	181

Note: - Food security: 1 for from poor to medium; 2 for from medium to high; 3 for total of both medium and high Production MT: for Metric tone

2.3. Number of household with self seed sufficiency

Annex-2

Details	Kharpunath			Lali			Raya			Sarkideu			Total		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Cereal seed production in metric tone															
Rice production in MT	1	3	1	0.1	1	1	0.1	5	1	0.2	11	3	1.4	20	6
Maize production in MT	1.2	75	1	0	0	0	0	0	0	0	0	0	1.2	75	1
Total	2.2	75	2	0.1	1	1	0.1	5	1	0.2	11	3	2.6	92	7
Actual household and sites		69	1		1	1		5	1		11	3		86	6
Vegetable seed production in kg															
Coriander	4	7	3	3.5	5	4	3	9	2	5	11	4	16	32	13
Broad leaf mustard	2.5	9	4	2	8	4	2	10	3	0.4	2	2	6.9	29	13
Cress	1.5	11	1	0.2	1	1	1	7	2	0	0	0	2.7	19	4
Onion	0	0	0	0.1	2	2	0	0	0	0.3	1	1	0.4	3	3
Swiss chard	0	0	0	0.2	1	2	0	0	0	0.2	2	1	0.4	3	3
Chinese cabbage	0.2	1	1	0	0	0	0	0	0	0	0	0	0.2	1	1
broad bean	0.7	1	1	2.5	1	1	0	0	0	0	0	0	3.2	2	2
Spinach	0	0	0	0.3	2	2	0	0	0	0	0	0	0.3	2	2
Radish	0	0	0	0.2	2	2	0.2	1	1	0	0	0	0.4	3	3
Carrot	0.05	1	1	0	0	0	0	0	0	0	0	0	0.1	1	1
Bean	0	0	0	0.3	1	1	0.5	2	1	0	0	0	0.8	3	2
Total	8.95	30	11	9.3	23	19	6.7	29	9	5.9	16	8	31	98	47
Actual household and sites		17	4		16	4		14	4		15	4		62	16
Oil seed-mustard in kg	2	1	1	0	0	0	0	0	0	6	2	1	8	3	2

Note: - 1 for total seed production in tone; 2 for total household involved in seed production; 3 for location or sites.
(vegetable is in kg)

1.5. Inter-specific & intra-specific diversity growing HHs increased by % in given table.

Annex-3

SN	Details	Kharpunath				Lali				Raya				Sarkideu				Total			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Cereals	72	25.9	11	3	23	7.77	12	3	12	3.85	11	2	24	6.28	8	3	131	10.33	12	11
2	Vegetables	17	6.12	6	4	25	8.45	6	4	35	11.2	6	3	37	9.69	6	4	114	8.991	6	15
3	Spices	0	0	0	0	5	1.69	1	2	0	0	0	0	5	1.31	2	2	10	0.789	2	4
4	Legumes	3	1.08	2	3	16	5.41	4	4	6	1.92	3	2	8	2.09	1	2	33	2.603	4	11
5	Oil seed	11	3.96	1	2	7	2.36	1	2	14	4.49	1	3	2	0.52	1	1	34	2.681	2	8
6	Fruits																				
a	Apple	10	3.6	2	2	9	3.04	2	2	17	5.45	2	3	7	1.83	2	2	43	3.391	2	9
b	Walnut	10	3.6	1	2	7	2.36	1	2	13	4.17	1	2	0	0	0	0	30	2.366	1	6
c	Other fruits	9	3.24	1	2	8	2.7	1	2	17	5.45	1	3	0	0	0	0	34	2.681	1	7
7	Herbal	23	8.27	1	2	18	6.08	1	2	15	4.81	1	1	21	5.5	1	3	77	6.073	4	8

Note: 1 for number of household; 2 for % of household in total number of household in the program area; 3 for number of diversity added in varieties level and 4 for number of location/site where diversity added.

2. Climate change adaptation and mitigation

Anticipated Outcome Result

➔ **Improved food and biomass productivity on farm**

Key Indicators

- 2.1. Number of **communities** with improved **capability** and **productivity** of agricultural lands
- 2.2. Number of **households** reporting **productivity** increases (for key crops) of at least 3% (*Average % increase over baseline*)
- 2.3. Number of **households** reporting an increase in the **diversity of agricultural products** obtained from their fields (e.g. food crops, forage, fuel, construction material, wild medicinal and edibles)

Achieved result (key indicator) for above (*for supportive outcomes data please see in given annex in blue number/%*)

2.1. **Continue in 12 communities of 4 VDC**

2.2. Additional 9.57 metric ton (1.653 metric ton cereal (maize and rice) and 7.92 metric ton of vegetables) produced by 181 household from supporting local seed of maize at Kharpelgaun of Kharpunath to 75 household and foundation seed of paddy to 20 households and improved locally unavailable vegetables seed to 136 households of four program VDCs.

Note: as we planned to increase 3% yield of key crops, we could not calculate or have not base line data. We have summarized the actual quantitative data here.

For details about this, please see in the annex- 4

2.3. Number (%) of household increase in the diversity of agriculture product obtained from their field

- **Food crops** -As mentioned in earlier (2.2.)
- **Grass/forage**- 7.02% (89 out of 1268 total household) household increased forage/grass from their crop land-**This is due to added crop intensity at Kharpelgaun in maize and more straw varieties of paddy in 20 households.**
- **Fuel wood** - This indicator will take long period to achieve the result. This year, 44 households have transplanted 1164 fruits/tree plants. After 6 to 7 years, 3.47% (44 out of 1268 total HHs) households will be increased fuel wood from their own private land.
- **Safe family toilet** - 13.2% (167 out of 1268 households) additional household constructed safe family toilet. The focus location is two sites of Kharpunath VDC-Kharpelgaun and Takla/bamta. In 278 total household, 60.07% (167) household have safe family toilet in the VDC.
- **ICS facility: 4.73%** (60 out of 1268 HHs) additional households have installed improved cook stoves (ICS) facility out of this,17.44%(30 out of 172 dalit) household have installed ICS in this year.

For details about this, please see in the annex- 5

2.3. Number (%) of household increase in the diversity of agriculture product obtained from their field

Annex-4

Details	VDCs				Total
	Kharpunath	Lali	Raya	Sarkideu	
Cereal crop					
Rice production in(Mt)	0.05	0.06	0.1	0.22	0.43
Number of house holds	3	1	5	11	20
Maize production (Mt)	1.23	0	0	0	1.23
Number of households	72	0	0	0	72
Total production (Mt)	1.28	0.06	0.1	0.22	1.65
Total respondent household	75	1	5	11	92
Actual household number	72	0	0	0	72
Vegetables crop					
Production in (Mt)	2.84	1.84	1.3	1.94	7.92
Number of household	50	32	20	34	136
Total production both (Mt)	4.12	1.9	1.4	2.16	9.57
Total respondent HHS	125	33	25	45	228
Actual household number	87	32	23	39	181

Note: Mt-Metric ton

Annex-5

Out comes details	Kharpunath		Lali		Raya		Sarkideu			
	HHS	%	HHS	%	HHS	%	HHS	%	HHS	%
Number (%) of household increased Grass/forage	72	25.9	1	0.34	5	1.6	11	2.9	89	7.02
Number (%)of household increased Fuel wood	10	3.597	9	3.04	18	5.77	7	1.8	44	3.47
Number (%) of additional household with safe family toilet facility	167	60.07	0	0	0	0	0	0	167	13.2
Number (%) of additional household with ICS facility	17	6.115	12	4.05	13	4.17	18		60	4.73

Total households: Kharpunath – 278, Lali- 296, Raya-312, Sarkideu- 382 Total = 1268 (**According to base line report**)

3. Rural economy and support to farmer organizations

Anticipated Outcome Result

➔ **Improved economic security**

Key Indicators

- 3.1 Number of **households** reporting an **improvement in their ability to meet their family's needs and aspirations**
- 3.2 Number of households reporting an increase in **household income** from agricultural biodiversity products
- 3.3 Number of farmer **micro-enterprises, cooperatives or associations** with improved capacity, as a result of support provided through program

Achieved result (key indicator) for above

- 3.1** 30(2.36% out of 1268 total household of the program area) households able to spend money to meet their needs and aspirations through taking loan from cooperatives. 30 (9.49% out of 316 cooperative members) households able to spend money to meet their needs and aspirations through taking loan from cooperatives. **annex-6(b) blue #/%**
- 3.2** 95 (7.49% out of 1268 total household of the program area) households increased in cash income from agricultural biodiversity based activities. From view of cooperatives, out of total 316 household, 95(30.03%) household increased in cash income from agricultural based activities. **Annex-6(c) in blue number**
- 3.3** Continue in good, uplift from medium to good, poor to medium in all activities **blue #**
- 3.4** **Farmer institution -cooperatives/groups (3.3 indicators) annex-6 (b) blue number**

Status : 1 Cooperative became good from medium Durpa of Kharpunath
 : 2 Groups became good from medium and registered in organic Agriculture cooperatives at Gopka of Lali and Ripa of Sarkideu

Hotel and small business

Status : 6 hotels has improved their status from medium to good through improving **and** establishing home garden for income generation.
 : 18 household of cooperatives members improved hotel and other small business with in their communities.

Other entrepreneurs' annex-6 (d)

Status : 4 gold smiths status are improved from poor to medium improving their agriculture tools making practice.
 : 6 tailoring business improved from poor to medium

Please see in annex-6 (a), (b), (c) and (d) for details

Income and investment details of Cooperatives

Annex-6 (a)

Details	Kharpunath	Lali	Raya	Sarkideu	Total
Income details					
Saving amount	201820	87200	17700	30000	336720
Share amount	39700	62500	29500	26500	158200
Small business development fund	100000	0	200000	100000	400000
Community biodiversity conservation fund	100000	50000	0	50000	200000
Interest amount	28440	9050	11000	0	48490
Other amount	0	5000	0	0	5000
Total income	469960	213750	258200	206500	1148410
Investment Details					
Loan disbursement	372000	109450	43000	120000	644450

Interest return of saving	28440	0	11000	0	39440
Social work	0	0	100000	0	100000
Institution mobilization	0	0	6000	0	6000
Balance at bank	69520	104300	98200	86500	358520
Total credit amount	469960	213750	258200	206500	1148410

Loan disbursement details of cooperative

Annex-6 (b)

Details		Kharpunath	Lali	Raya	Sarkideu	Total
Total HHs in VDCs		278	296	312	382	1268
Total HHs in cooperatives		114	64	53	85	316
Loan taker		8	7	7	8	30
Female		3	3	2	1	9
Male		5	4	5	7	21
Total amount of loan Rs		3,72,000	1,09,450	43,000	1,20,000	6,44,450
Status of cooperatives	# of cooperatives	2	2	1	2	7
	Good	2	0	0	0	2
	Medium	0	2	1	1	4
	Poor	0	0	0	1	1

Number of cooperative member involved in different agro based enterprises

Details		Kharpunath	Lali	Raya	Sarkideu	Total
Involved in fruit farming		9	7	5	7	28
Female		3	4	1	3	11
Male		6	3	4	4	17
Involved in vegetable farming		5	9	6	2	22
Female		3	4	5	2	14
Male		2	5	1	0	8
Involved in livestock farming		7	11	2	3	23
Female		1	5	0	2	8
Male		6	6	2	1	15
Involved in beekeeping		4	13	4	1	22
Female		0	5	0	0	5
Male		4	8	4	1	17
Involved in agro-based business		25	40	17	13	95
Female		7	18	6	7	38
Male		18	22	11	6	57

Number of cooperative member involved in hotels and small business work

Annex-6 (d)

Details		Gender	Kharpunath	Lali	Raya	Sarkideu	Total
Involved in hotel and small business (hotel and re-tailor shop)	Total		7	8	3	6	24
	Female		3	4	0	3	10
	Male		4	4	3	3	14
Tailoring and iron work business to dalit	Total		3	3	2	2	10
	Female		1	2	1	1	5
	Male		2	1	1	1	5

4. Gender equality

Anticipated Outcome Result

- **Increased influence of women's knowledge priorities and leadership in food production and food security**

Key Indicators

- 4.1 Number of households reporting an increase in **household income** from women-led agro-biodiversity production (*home gardens*)
- 4.2 Number **women participants** in SHIPN-sponsored programs (% of the total number of participants)
- 4.3 Number of **leadership positions** held by **women** in SHIPN-supported programs (e.g. on management committees of CSBs, farmer cooperatives, village committees etc.) (*% of the total number of leadership positions*)

Achieved result (key indicator) for above

- 4.1 At least, 5.20% (66 out of 1268) households have increased income from women-led agro-biodiversity production. **Please see about in details in annex-7(a) in blue number**
- 4.2 25.23% (320 out of 1268) households are female in participating training/workshop and meeting, 50.23 % (320 out of 637) households are female in training/workshops/meetings comparing with male. 42.01 % (205 out of 488) households are female in cooperatives/groups. **Please see this in table 1(a) in blue * number as mentioned earlier**
- 4.3 32% (32 out of 100) households are in leadership positions with compare to male in the cooperatives and groups in the SHIPN -sponsored programs are women. As compare to total 1268 households, 2.52% female and 5.36% male in leadership position according to cooperatives/groups records. **Please see in Annex-7(b) blue number**

Annex-7 (a)

Details	Kharpunath		Lali		Raya		Sarkideu		Total	
	HHs	Sites	HHs	Sites	HHs	Sites	HHs	Sites	HHs	Sites
Involved in fruit farming	4	2	4	2	0	0	4	2	12	10
Involved in vegetable farming	8	4	7	3	6	3	5	2	26	12
Involved in livestock farming	5	3	4	4	3	1	2	2	14	10
Involved in beekeeping	1	1	0	0	1	1	2	1	4	3
Herb collection	2	1	0	0	4	3	4	3	10	7
Total of HHs	20	4	15	4	14	3	17	3	66	14

Annex-7(b)

Data derived from total of both - cooperatives and groups						
SN	Details	VDC/HHs/leadership position/members-Number/%				
		Kharpunath	Lali	Raya	Sarkideu	Total
1	Total HHs in VDCs	278	296	312	382	1268
2	Total Households	192	107	97	85	481
3	Total members	194	107	97	90	488

a	Female	80	62	44	19	205
b	Male	114	45	53	71	283
4	# in leadership position	36	20	20	24	100
a	Female	12	6	8	6	32
b	Male	24	14	12	18	68
a	% of female	33.33	30.00	40.00	25.00	32%
b	% of male	66.67	70.00	60.00	75.00	68.00
5	% coverage of HHs in leadership position in total HHs of VDC	12.95	6.76	6.41	6.28	7.89
a	% coverage of female in leadership position in total HHs of VDC	4.32	2.03	2.56	1.57	2.52
b	% coverage of male in leadership position in total HHs of VDC	8.63	4.73	3.85	4.71	5.36

5. Spreading of USC program (includes Young farmers)

Anticipated Outcome Result

- Increase the number of young farmers and development institution in biodiversity conservation activities
- Increased capacity of SHIP N programs to engage key stakeholders, effectively document program outcomes and spread the Seed of survival (SoS) vision and approach

Key Indicators

- 5.2.1. Number of young people within participating communities who are engaged in agro-biodiversity based activities.
- 5.2.2. Level of **collaboration** between **SHIPN supported programs** and **local government, research & development organizations**.
- 5.2.3. Extent to which **SHIPN programs** have **inspired new agro-biodiversity-based initiatives** among other actors and institutions
- 5.2.4. Level of **capacity** of SHIPN and its partners (CDCs, Cooperatives) to implement and to **monitor/supervision and document progress**

Achieved result (key indicator) for above

- 5.2.1. **10.33% (131 out of 1268)** students household (young people) engaged in agro biodiversity based activities and **Number of young people engaged in agro biodiversity based activities (involved in biodiversity block establishing and school biodiversity garden establishment work-school and students young people)**

For details please see in annex-8 in blue number

- 5.2.2. Collaborated with additional 2 governments (**district drinking water supply office and VDC of Kharpunath**) and partnership with one INGO for **Humla Development Initiative program with DF-Norway** at district, local levels and international level.
- 5.2.3. NGOs have replicated **SHIPN programs** related to **agro-biodiversity-based initiatives (climate change, local seed conservation and saving credit cooperatives/groups)** in district level.
- 5.2.4. Capacity and skill of SHIP staffs have up-graded from medium to high in implementation, monitoring and documentation of progress. SHIP Nepal partner (CDCs, cooperatives from poor to medium)

Annex-8

Details	VDCs/households				
	Kharpunath	Lali	Raya	Sarkideu	Total
Total HHs in VDCs	278	296	312	382	1268
Young people -students					
Girls	15	20	14	0	49
Boys	31	35	16	0	82
Total house student HHs	46	55	30	0	131
% in comparing total HHs	16.55	18.58	9.62	0.00	10.33

1. Other- (Activities and outcomes)

- 1.2. 3 staffs (two technical and one administrative) participated 5 days training on *Approaches and Methods for On-farm Conservation and Use of Agro biodiversity* at Pokhara held by USC Asia Pokhara. From this training participants are became active in biodiversity block establishment and VPS work. **The capacities of 3 staff have up-graded in on farm conservation and uses of agro biodiversity conservation work.**
- 2.2. One **on the job training student** passed from Jumla Technical School trained for 5 months in agro biodiversity related activities. SHIP Nepal support daily food cost for five months. He was mobilized in biodiversity block and mother baby (PVS) trial for local seed collection, blocks establishment and assessment work. **One young farmer have up-graded his knowledge on biodiversity conservation.**
- 3.2. SHIP Nepal succeeds to receive additional program HDI (Humla Development Initiative) with partnership of DF (Development Fund Norway and working in *4 additional VDC-Khagalgaun, Syanda, Dandaphaya and Muchu* of Humla district. **SHIP Nepal controlling 7 additional staffs in HDI program.**
- 4.2. As earlier mentioned in above in 2.2.2, SHIP N constructed additional 102 toilets in collaboration with district drinking water supply office and Kharpunath VDC. SHIP Nepal facilitated the community people to share their opinion about toilet construction (budgeting for toilet) in VDC assembly meeting.
- 5.2. As we mentioned in 4.1.3. under gender theme, we have planned chino processing machine, we did support in oil expelling machine instead of chino processing machine at Kharpelgaun of Kharpunath VDC. We did this that the cost of machine is very high, SHIP Nepal was planned 1, 72,000.00 including transportation. The cost of machine is very high than planned. We talk with having micro hydro facility VDCs Kharpunath and Lali for budgeting. Community people and VDC could not budget for this purpose (chino processing machine). And the community people of Kharpunath involved this process but due to low electrical power than requirement this could not happened and instead of chino processing machine we support in oil processing machine in Kharpelgaun of

Kharpunath VDC. Total cost of oil expelling machine including transportation and building is near about Rs 6,00,000.00. SHIP Nepal support in machine cost and transportation and building construction work will do by cooperative and Kharpunath VDC. Machine is purchased and under process of transportation and agreement is been with VDCs and cooperatives for transportation and building construction. Kharpunath cooperative has budgeted Rs 1,00,000.00 for establishing oil expelling machine.

Power supply for chiono processing is suitable in Lali VDC but budgeting is not supported by VDC and this will plan in the planning year 2012-013 in Lali VDC. There is no electricity facility in other two VDCs (Sarkideu and Raya). In Sarkideu, micro hydro power is under construction. People of Sarkideu VDC are also demanding oil expelling and chiono processing machine in near future.

2. Additional Fund support activities.

2.1. Additional fund support to build agriculture biodiversity resource centre to manage chaupadi pratha at Pyusa of Lali

This is shift in Tatopani Organic agriculture cooperative, unapani Sarkideu

Additional fund received from USC Canada initially planned to manage chhaupadi pratha through developing agro biodiversity learning center at Pyusa of Lali VDC. Due to unavailability of land (no personal, private and public land) and community expectation about building construction is very high about budget and they do not want to contribute in any material, this construction work is delayed. The meeting was held 3 times with community of Pyusa, at last they reject to construct this building. The work is shift to Unapani of Sarkideu VDC. The people of Unapani are agreed to construct as agro-biodiversity resource center and minimize the chaupadi pratha from this resource center. They have agreed to provide land. All the agreement, estimation work is completed during reporting time. The work is taking by **Tato pani organic agriculture cooperatives**. The members of this cooperative is happy, committed to complete the work within their taken time line. One thing is poor in this cooperative. Women participation is very few as expect in written form where as in decision making process and other development work women are involved in agreeable.

Community people are agreed to complete the construction work with in September second week. This is due to delayed that, they are involved in hydro power construction work and most of women are engaged in farming work. **(Due to farming season and additional micro-hydropower construction work is started before this building construction work).**

The building will be of 33 feet length and 17 feet widths with 3 rooms (one meeting/training hall in upstairs).

Two sites of Sarkideu VDC (Unapani-Aula and Unapani - Lekha) will be involved in the construction work and benefit with 233 households including 21 dalit households.

Community people will contribute in timber transportation from jungle to the field, earth work. SHIP Nepal supported roofing materials, timber collection cost, stone, transportation cost from Nepalgunj to field including skill labor cost in construction work.

People of these sites/communities are involved in extending vegetable farming and apple farming and atish plantation. They faced rats' problem in atish farming and people are very unhappy with this trouble. People of this site are also involved in paddy and wheat PVS (mother and baby trial and from this year, some people are involved in baby trial for post harvest assessment of paddy.

After construction of building, the community of unapani-aula and lekh will be involved in seed exchange and supply system (production and exchanging local and imported seed) with in community and other periphery VDCs. They will also involve in other biodiversity conservation related activities in massively.

This will use as training hall, information sharing center specially in minimizing (chhaupadi pratha) using different media and seed collection and distribution including

2.2. Support Dalit child care center at Raya-4, Gumbadhara

Support in building construction:-

Child reading center at Raya is continues support activities. Initially, the action is supported by KIRDARC (Karnali Integrated Rural Development and Resource Center). SHIP Nepal has supported to repair play ground, supporting wall and toilet facility in previous year. One teacher has supported from district education office.

24 household have 74 children including 41 girls below 15 years age. Out of these, 46 including 21 girls are learning in child care center, 28 including 7 girls are learning in primary to secondary school at Raya.

The existing building is small and from additional program budget constructing one building with one room of 21 feet long and 15 feet wide space building. During reporting time 75% of work is completed. After this work, community people will involve in drinking water supply work.

SHIP Nepal supported skill labor, timber collection cost, roofing, fitting materials and technician to construct the building and all remaining work in stone collection, earthling, material transportation (timber from jungle and other materials from Simikot) done in contribution. Total estimated cost of building construction is (SHIP Nepal 312,000.00 + community 93,000.00).

Drinking water supply support: Clean drinking water supply is very important for child health. It was difficult for drinking water and using in toilet to the child of learning center. From additional fund support, SHIP Nepal selected dalit child care center Raya for supply clean drinking water at Gumbadhara of Raya VDC. Organization support 400 meters 25 mm of HDP pipe and other fitting materials, two tap, cement, skill labor cost and technical support. Community people of Gumbadhara will work in non skill labor on carrying materials from simikot to the field, collecting stone, sand, preparing pipeline earth work. All the fitting materials (cement, pipe, tape) are purchased and transported at field. Due to double work (building construction of child care center) in the same location and users, construction work of the drinking water supply will start after building construction work. The total cost of the drinking water is estimated 90,000.00 in this, SHIP N cost is 40,000.00 and community contribution will be of 50,000.00

Two tap will construct one in dalit child reading center at Gumbadhara and one is at Raya sub-health post near gumbadhara. From this construction work, 46 child including 21 girls of 24 dalit household family and one sub-health post of Raya VDC will be benefited regularly.

After building construction and drinking water supply support activities, child will establish some vegetation planting (fruit and vegetables) in coming year. Similarly, sick people at health post will get clean drinking water facility. Before there was no such drinking water facility or using water from spring source. The source of water is near the health post. Number of child will increase and they get good access from other resources and good learning centre to improve their future.

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🌀 The End 🌀