

Darwin Initiative Main Annual Report

To be completed with reference to the “Writing a Darwin/IWT Report” Information Note:
(<https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/>).

It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2021

Darwin Project Information

Project reference	26-008
Project title	Market-led Approach to Sustainable Management of Agrobiodiversity for Livelihood Outcomes
Country/ies	Nepal
Lead organisation	Local Initiatives for Biodiversity, Research and Development (LI-BIRD)
Partner institution(s)	Annapurna Rural Municipality; Rupa Rural Municipality; Pokhara Metropolitan City; Ministry of Land Management, Agriculture and Cooperative; Lekhnath Chamber of Commerce and Industry; Machhapuchhre Development Organization (MDO); Panchadham Agriculture Development Cooperative; Jaibikshrot Samrakchan Abhiyan (JSA); Rupa Lake Restoration and Fisheries Cooperative; Phewa Watershed Ecosystem Management Board; Lake Conservation and Development Authority (LCDA); Seed Change (formerly known as USC Canada); The Bazaar; and Bread for the World (BftW)
Darwin grant value	£ 240,223 (NRP 33,871,443)
Start/end dates of project	1 June 2019 – 31 May 2022
Reporting period (e.g. Apr 2020 – Mar 2021) and number (e.g. Annual Report 1, 2, 3)	April 2020 – March 2021 Annual Report 2
Project Leader name	Ram Bahadur Rana
Project website/blog/social media	www.libird.org
Report author(s) and date	Tejaswee Shiwakoti, Indra Paudel and Ram Bahadur Rana 30 April 2021

1. Project summary

The Lake Cluster of Pokhara Valley (LCPV) includes basins of nine lakes (Phewa, Kamalpokhari, Gunde, Khaste, Neureni, Dipang, Maldi, Begnas, and Rupa) of Pokhara valley, located at the central section of Lower Himalaya (28°08'02" N 84°59'18" E). The LCPV together has 261.6 km² of basin with 8.97 km² of water cover (Figure 1). The area was declared the 10th Ramsar Site of Nepal on 2 February 2016. It is endowed with rich agricultural, wild, and aquatic biodiversity.

The project entitled "Market-led Approach to Sustainable Management of Agrobiodiversity for Livelihood Outcomes" focuses on generating alternative livelihoods for wellbeing of smallholder farmers in a Ramsar site of the LCPV, through a scalable place-based marketing approach (Unified Landscape Branding – ULB) for agrobiodiversity-based products. The focus of the project is marketing of agrobiodiversity including fish products contributing to livelihood outcomes, which in turn assists wetland habitat conservation. Local agrobiodiversity offers various benefits to farmers, such as nutritious and safe food, resilience to bio-physical shocks and climate changes, and promotes local culture. Despite these benefits, loss of agrobiodiversity, fish species and wetland habitat, and pollution remain concerns in the LCPV. Low productivity of local agrobiodiversity crops and fish species, low consumer awareness regarding nutritive value of local agrobiodiversity, limited diversification of marketable agrobiodiversity products, and government policy favouring modern varieties are some of the underlying causes of loss of agrobiodiversity.

In recent years, there has been an increase in demand for certain local agrobiodiversity products. For instance, historically valued products such as the aromatic rice Jethobudho, the medicinal rice Anadi and the delectable fish Sahar (*Tor putitora*) have become more lucrative with demand out-stripping supply. Nutritious grains such as finger millet, foxtail millet, and buckwheat can have a revival in a health conscious marketplace with investment in processing and supply chains. New fruit crops such as avocado and kiwi can be a good fit for the LCPV area as climate resilient fruits requiring low labour demand, and the popularity of these fruits in urban markets.

During 7-11 July 2018, a series of consultation meetings were organized with local communities and cooperative members to identify interventions to address the above problems and to exploit new opportunities. There was overwhelming demand to link agrobiodiversity products to market to improve people's livelihoods. Hence, after analysing problems and opportunities, the project intends to capitalize on increasing demand of agrobiodiversity products in regional markets by sourcing products from local producers thus directly contributing to their livelihoods. The project scales up the market-led approach of Unified Landscape Branding (ULB), where local fresh produce and processed products from the LCPV are marketed under a unique place-based label – a Unified Landscape Brand – in local, regional, and national markets to generate income. A certain percentage of profit generated will be reinvested in watershed and biodiversity management in the region thus creating a self-sustaining mechanism for conservation of natural habitat of lakes, which is at the centre of wetland biodiversity.

The working sites include wards of Pokhara Metropolitan City, Rupa Rural Municipality and Annapurna Rural Municipality of Kaski district in Gandaki Province, Nepal (Figure 1). The project is working with 47 farmer groups and cooperatives reaching 4050 plus households. Smallholder producers are encouraged to apply Good Agricultural Practices (GAP¹) while producing 'safe and locally produced' crops, vegetables, fruits, fish, etc., attracting premium price in the market.

¹ Good Agriculture Practices (GAP) is a voluntary standard for food safety, quality control, environment friendly and worker welfare friendly standard which ultimately contribute for sustainable agriculture.

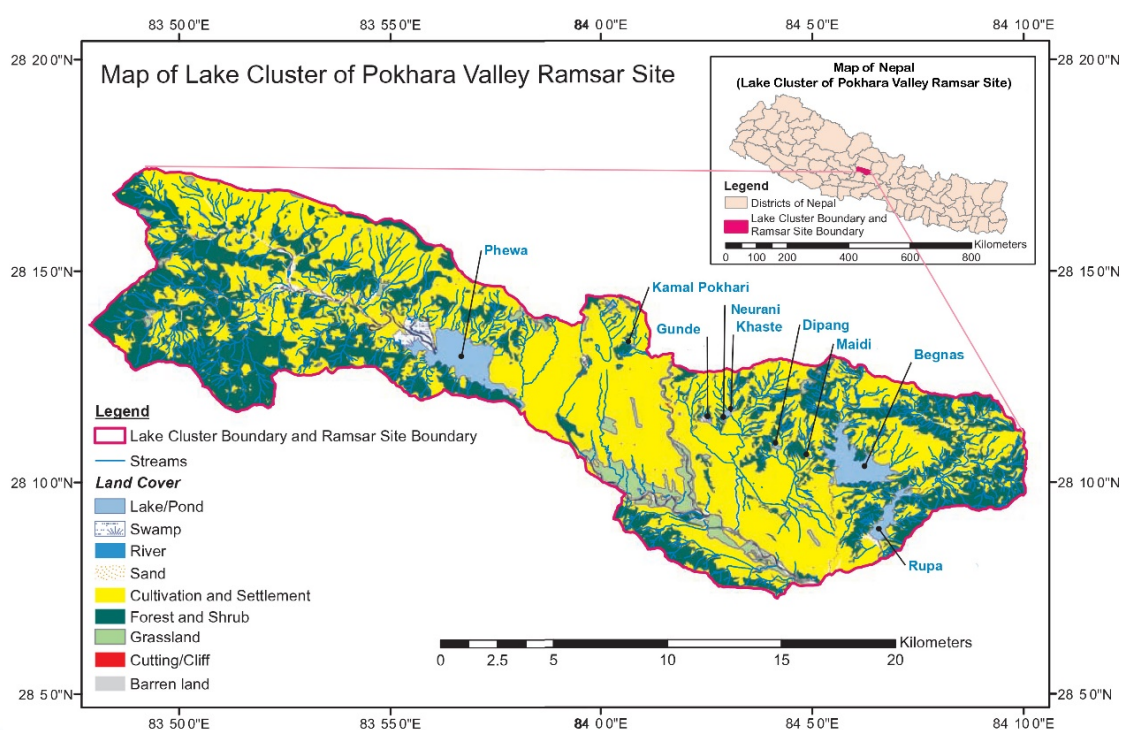


Figure 1. Map of Lake Cluster of Pokhara Valley (LCPV-DI) Project Working Area

2. Project partnerships

LI-BIRD, as the project lead, is partnering with a dozen organizations (Listed in Darwin Partner Institutions in Cover Page of the Annual Report) representing public, private, cooperative, civil society, and network-based organizations. These partners were identified for fulfilling specific tasks in the project, and their engagement has been ensured accordingly. All partners participated in the inception meeting (18 July 2019) followed by the project launching workshop (19 July 2019) in Year I, and these partners have been engaged in the project based on their expertise. The same trend continued for Year II as well, and the specific role of different partners is highlighted in Table 1.

For the reporting period (April 2020 – March 2021), two partners' meetings and one Project Steering Committee meeting were organized. The project has the following mechanism to ensure active participation of partners in the project activities:

- Project Partners Meeting (PPM):** The project planned to hold three PPM per year but due to the COVID-19 pandemic and strict lockdown of the country from 24 March 2020 to 21 July 2020, only two partners meeting have been organized. One of the meeting was conducted virtually where the project planned activities and progress was shared with the partners (29 September 2020) and second meeting was conducted (25 December 2020) after the lockdown was fully relaxed and was done following safety protocol (Annex 4.1).
- Project Steering Committee Meeting (PSC):** The project planned to hold four PSC meeting per year but due to COVID-19 pandemic and restriction on travel and general gathering, we managed to organize one meeting only. After all the travel and congregation restrictions were lifted, a PSC meeting was held on 10 March 2021 with the following members: Secretary of Ministry of Land Management, Agriculture and Co-operative (MoLMAC) as Chair; Chairpersons of Rupa Rural Municipality and Annapurna Rural Municipality (members); Coordinator of Phewa Watershed Ecosystem Management Board (member); Secretary from LI-BIRD (member); CEO of Lake Conservation and Development Authority (LCDA) (members); Executive Director of Machhapuchhre Development Organizations (member); Chairperson of Rupa Lake Restoration and Fisheries Cooperative (member); and Chief of Gandaki Province Agriculture Directorate and Chief of Agriculture Knowledge Centre, Kaski as invitees (Annex 4.2). The meeting was chaired by Secretary of MoLMAC where the project

team presented the achievements of Year I, activities, and budget for Year II, and the progress made so far. We also tentatively shared the budget and activities of Year III followed by intensive discussions, and question and answer session (Figure 2 in Annex 4.9).

- **Annual Review and Planning Meeting (ARPM)/Travelling Seminar:** The ARPM is organized once a year towards the end of the year where all partners gather to review and reflect on the past achievements and shortcomings as well as to plan activities to be included in the plans and budget of the coming year. We were scheduled to organize the ARPM towards the end of March 2021, which has been postponed due to the increase in COVID-19 cases. We may have to organize ARPM virtually in May/June 2021.

Also, a travelling seminar was planned at the end of March 2021. But due to increase in COVID-19 cases, the Nepal Government has advised to refrain from meetings/seminars, and gatherings to control the spread of second wave of COVID-19 pandemic.

Since partners were selected to undertake specific tasks in the project, their engagement in the project was primarily governed by a match between the project events/activities and the expertise partners brought on the table. Formal Letter of Agreement (LoA) was signed between LI-BIRD and partner organization/individual consultant outlining their services, and terms and conditions of engagement (sample LoAs included in Annex 4.3). A brief description of partnership arrangement, and engagement of partners in project activities for Year 2 is presented in Table 1.

Table 1: Engagement of different partners in project activities, 2020/21

SN	Partners	Roles/Responsibilities	Duration
1	Pokhara Metropolitan City (Public Sector)	<ul style="list-style-type: none"> • Foxtail millet promotion; Coffee, local rice and fruits promotion in LCPV area; Co-finance activities • Development of Agriculture and Livestock Strategy for Ward No 19 and Multi-year Investment Plan for Ward No 13 	Throughout the project
2	Rupa Rural Municipality (Public Sector)	<ul style="list-style-type: none"> • Foxtail millet promotion; Coffee, local rice and fruits promotion in LCPV area; Co-finance activities 	Throughout the project
3	Annapurna Rural Municipality (Public Sector)	<ul style="list-style-type: none"> • Foxtail millet promotion; Coffee, Shiitake mushroom and vegetables promotion in LCPV area; Operate Collection Centre; Establish Biodiversity Information Centre at Bhadaure; Co-finance activities 	Throughout the project
4	Jaibikshrot Samrakshan Abhiyan (JSA) – Network organization	<ul style="list-style-type: none"> • Kul Chandra Adhikari is the local resource person hired for Good Agriculture Practice (GAP) promotion in coffee. His assignment includes: identifying interested groups; conducting training; supplying healthy coffee seedling; field monitoring; and establishing market linkage between groups and Packaging House (Annapaat Agro Private Limited). • Puspa Subedi is another local resource person hired for providing technical training to bee-keeping farmers and support them on honeybee management in LCPV-DI project area 	Apr 2020 – Mar 2021
5	Rupa Lake Rehabilitation and Fishery Cooperative – (Cooperative)	<ul style="list-style-type: none"> • Lekhnath Dhakal is the local resource person hired for organizational development (compliance, internal control system, and good governance etc.) and technical support to Lake Management Committees and Fishery Development Cooperatives of LCPV area 	Apr 2020 – Mar 2021
6	Machhapuchhre Development Organization (MDO) – (Civil Society)	<ul style="list-style-type: none"> • MDO is responsible for social mobilization and coordination of farmers' groups and cooperatives for biodiversity conservation, increase production of agricultural products, and market linkages 	Throughout the project
7	Panchadham Agriculture Development Cooperative	<ul style="list-style-type: none"> • Panchadham Agriculture Development Cooperative is responsible for establishing and operating a Biodiversity Information Centre (BIC) at Bhadaure, Annapurna Rural Municipality 	Apr 2020 – Mar 2021

8	Lake Conservation and Development Authority (LCDA) – (Public Sector)	<ul style="list-style-type: none"> LCDA is a key institution of Gandaki Province which is formed for conservation, development, expansion and promotion of lakes of Gandaki Province The project team worked closely with Dr. Anup Gurung, CEO of LCDA for lake management and fish production. The project focuses on making the Pokhara valley self-sufficient in fish production by sustainably managing lake resources 	Apr 2020 – Mar 2021
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3. Project progress

3.1 Progress in carrying out project Activities

In Year II, the project focussed fully on implementing project activities, building capacity of cooperatives by strengthening networks with project partners, and government agencies.

Output 1: Increased income and employment opportunities to smallholder farmers through the production and sale of agricultural biodiversity-based products at local and regional markets

In Year I, the project identified keystone crops: Jethobudho rice, foxtail millet, coffee, honey, shiitake mushroom, fish, kiwi fruit, and fresh vegetables. This year the effort has been to provide beneficiary farmers with technical, financial, and material support in order to increase production. Through series of trainings, the project has been promoting Good Agriculture Practice (GAP) among farmers to produce safe and healthy food. Likewise, for fishery groups and fish cooperatives, a Good Aquaculture Practice (GAqP) manual has been finalized to be used as reference manual for training (Annex 4.4).

In order to promote safe, healthy and organic-oriented fresh vegetable production in the project area, a total of 50 farmers (36 female and 14 male) were trained in preparation of bio-pesticides followed by material support for preparing bio-pesticides (Figure 3 in Annex 4.9). The project also distributed seasonal vegetable seeds to farmers. For promoting perennial fruits in the watershed area, the project supported kiwi plantation (32 farmers with 837 saplings). Other major activities directly contributing to achieve Output 1 are presented in Table 2.

Foxtail millet was promoted by the project in different sites of the LCPV. An on-farm varietal trial was conducted to identify the most suitable foxtail millet variety (Seto Kaguno) and then produced seeds of the promising variety for wider distribution. Together with that, improved huller machine was introduced, which improved the milling recovery of foxtail millet (Figure 4 in Annex 4.9).

Table 2: Major activities carried out for achieving Output 1

SN	Activities	Date	Male	Female	Total
1	Coffee saplings distribution (7,070 saplings)	10-12 Jun 2020	85	40	125
2	Vegetable Seed Distribution (2 times)	1-5 Oct 2020; 15-20 Jan 2021	110	328	438
3	Bee keeping training (Figure 18)	23-24 Nov 2020	24	39	63
4	3-day training on Shiitake mushroom cultivation/farming (Figure 16)	18-26 Dec 2020	20	5	25
5	64 Bee hive distribution (50% cost)	22 & 31 Dec 2020	22	10	32
6	Coffee training	27-29 Dec 2020	25	44	69
7	837 Kiwi seedling distribution	4 Jan 2021	30	2	32
8	Shiitake mushroom cultivation on cost-sharing basis 15,000 logs	23-28 Feb 2021	19	5	24
9	272 kg Local crop (Foxtail Millet) IRD distribution in LCPV area (Figure 17)	4-8 Mar 2021	51	21	72
10	Exposure visit to coffee growers	25-27 Mar 2021	50	61	111
11	T-Stand Support for Kiwi	31 Mar 2021	1	10	11
12	Hail net support	31 Mar 2021	10	29	39
	Total		447	594	1041

In Year I, the project facilitated in preparing business plan of eight fishery cooperatives. The final business plan was shared with respective cooperatives. In Year II, among the eight business

plans, four business plans were used in proposal development process, which was initiated by Lake Conservation and Development Authority (LCDA) of the Gandaki Province. These business plans comprised an integral part of the proposal for increasing fish production in Dipang, Maidi, Gude and Khaste Lakes (Annexes 4.5 and 4.8). The government is expected to invest GBP 200,584 over five years in these lakes.

A total of 886 (women=430; 49%) farmers (except fisher cooperatives) were directly supported by the project in Year I, whereas this number increased to 1041 in Year II, with 594 women farmers comprising 57% of targeted beneficiaries.

Packaging house – Annapaat Agro Private Limited

Establishment of packaging house in Pokhara through private investment was the major activity planned for in Year II. We were scheduled to initiate work on packaging house in April 2020 and complete the process by August 2020, however due to the COVID-19 pandemic and subsequent lockdown measure adopted by the Government of Nepal, the process could not be initiated until September 2020, when the lockdown was partially lifted. We are pleased to report that a packaging house called – Annapaat Agro Private Limited – was registered on 10 November 2020, and basic groundwork for operationalizing the company has been achieved (Annexes 4.6.1 – 4.6.4, and Figure 5 in Annex 4.9). The building construction (packaging house, office building, and outlet) work is progressing in full swing, and all construction related works are expected to be completed by 31 May 2021. Purchase of machinery items is complete while designing of website and packaging materials, and sourcing of different agro-products are underway. Annapaat Agro Private Limited is expected to open for business from June/July 2021.

Output 2: Increased consumers awareness and knowledge about the value of local biodiversity based food products

For Year II, the activities like training and supporting local hotels, restaurants and home stays to promote local food recipes was halted due to the pandemic. Likewise, the planned school programmes to increase conservation awareness and promote agrobiodiversity amongst school children had to be cancelled as schools remained closed during the pandemic. However, 12 episodes of conservation awareness programme through Regional FM radio (Annapurna FM Radio) was conducted.

Primarily, the consumer awareness and knowledge programme focussed on: importance of biodiversity; value of local agrobiodiversity-based food products; climate change and adaptation; organic farming; status of lakes in Pokhara Valley and conservation initiatives; concept of unified landscape branding; and many other relevant topics (Table 3). Experts from public, private and cooperative sectors plus local resource persons from community institutions were interviewed, which was aired through Regional FM Radio station (Annex 4.7).

Table 3: List of different topics and experts used for creating consumer awareness

	Awareness activities	Expertise
1	Importance of biodiversity in agriculture system	1. Senior Scientist, Gene Bank, NARC 2. Chief, Centre for Crop Development and Agrobiodiversity Conservation 3. Senior Program Officer, LI-BIRD
2	Role of local crop and varieties in Nepal's agriculture system	1. Senior Scientist, Gene Bank, NARC 2. Senior Program Officer, LI-BIRD
3	Importance of agricultural biodiversity in food and nutritional security	1. Agriculture Scientist, Bioversity International Nepal 2. Senior Scientist, Gene Bank, NARC 3. Nutritionist
4	Climate change and its effect on agricultural sector	1. Senior Program Officer, LI-BIRD
5	Importance of wetlands for biodiversity conservation and climate adaptation	1. Secretary, Ministry of Industry, Tourism, Forest and Environment, Gandaki Province 2. Senior Program Officer, LI-BIRD
6	Status of lakes in Pokhara Valley and their capacity for fish production	1. Chief, National Fishery Research Centre 2. Secretary, Phewa Watershed Management Board

7	Nepal government's initiatives and efforts for sustainable management of lakes	1. Ministry of Industry, Tourism, Forest and Environment Ministry, Gandaki Province 2. CEO, Lake Conservation and Development Authority, Gandaki Province
8	Fishery Cooperatives' role in lake conservation and fish production	1. Chairperson, Rupa Lake Restoration and Fishery Cooperative 2. Chairperson, Khaste-Neureni Fishery cooperative. 3. Program Officer, LI-BIRD
9	Importance, scope and challenges of organic farming in Lake Cluster of Pokhara Valley (LCPV) area	1. Agriculture expert 2. Chief, Agriculture Development Directorate 3. Senior Program Officer, LI-BIRD
10	Promotion of Shiitake mushroom, bee keeping and foxtail millet in LCPV area	1. Chairperson, Mushroom Production Group, Gandaki Province 2. Chief, Agriculture Knowledge Centre, Kaski 3. Farmer, Honey Production 4. Program Officer, LI-BIRD
11	History and recent condition of local rice "Pokhareli Jethobudho"	1. Program Officer, LI-BIRD 2. Senior Program Officer, LI-BIRD 3. Chief, Agriculture and Livestock Development Office, Pokhara Metropolitan City
12	Market-led approach to Sustainable Management of Agrobiodiversity for Livelihood Outcomes	1. Principal Investigator, LCPV-DI, LI-BIRD 2. Co- Principal Investigator, LCPV-DI, LI-BIRD

The baseline study conducted in Year I revealed that three major factors (tillage, intercropping, and post-harvest operation) contributed to inflated cost of production of foxtail millet making the crop unprofitable for growers. To address these problems, the project supported foxtail millet producers with mini tiller on 50% cost-share basis. Comparative cost analysis between animal drawn vs. mini tiller indicated that cost of ploughing is reduced from NPR 3,150 to 580 for 1,200 m² area (82% reduction) when mini tiller is used (Figure 6 in Annex 4.9), directly contributing to reduction in overall cost of production by 18%. The project also introduced modern hulling machine, which increased milling recovery to 80% from 65% normally obtained in traditional huller. These interventions have helped in reducing foxtail millet production cost and thus making it more attractive for farmers. Farmers were supported with the foxtail millet seeds so the number of farmers involved and the area under foxtail millet has increased (Table 6).

Year II has been the year of establishing a packaging house: Annapaat Agro Private Limited. The company website including online marketing system development work is in full swing, which is expected to be fully functional by August 2021 (Year III).

Output 3: Local stewardship and capacity for the conservation and management of biodiversity and lake ecosystem enhanced

The market study conducted in Year I indicated that hotels, restaurants, and homestays around the LCPV areas were eager to collaborate and support the concept of Unified Landscape Brand (ULB). However, the COVID-19 pandemic has significantly affected hotel and restaurant businesses, which made it impossible for the project to organize networking programmes to highlight the ULB products. Nevertheless, the project supported the packaging house, Annapaat Agro Pvt. Ltd., with processing machines and packaging items, which will ultimately contribute to institutionalizing ULB approach in the longer run.

The Project Steering Committee (PSC) meeting was held on 10 March 2021 where project activities, budget, and progress made so far was shared and was approved. Though the project planned a PSC meeting at the beginning of the Year II but due to nation-wide lockdown it was postponed and the project team was able to organize the meeting only at the end of Year II. One PSC meeting is scheduled for June 2021 to share Year III activities and budget. We will organize virtual PSC meeting since the COVID-19 pandemic is worsening rapidly, as we write this report.

In Year I, the project team along with the local community identified a prospective site for establishing a Biodiversity Information Centre (BIC) at Annapurna Rural Municipality. Consequently, members from Panchadham Agriculture Development Cooperative and local government representatives visited BIC at Sundaridada to observe and learn how BIC is

established and operated. In Year II, the project in collaboration with the cooperative was successful in establishing a new BIC at Bhadaure. The centre is still a work in progress, with further support planned for Year III (Figure 7 in Annex 4.9). The BIC will have a collection of different crop/varieties, demonstration of indigenous tools used by farmers, and collection of popular and rare orchids. The BIC will also serve as Collection Point of fresh vegetables for Annapaat Agro in near future.

The project was able to organize 3-day workshop to local leaders, representatives of organizations, and project staff. The workshop was on “National Policies and Practices in Agrobiodiversity Management, Farmers Rights, Right to Food and Climate Resilient/Agro Ecological Agriculture” (8 male, 3 female). Besides that, the project planned to organize training on national and international policies regarding Ramsar Convention but due to the pandemic the training was halted and will be organized in Year III provided the situation permits.

Additional 14 ha of conservation area has been allocated at two lakes, i.e. Begnas Lake (6 ha) and Dipang Lake (8 ha) through direct support of the project. This helped to achieve conservation of biodiversity in wetlands (Figures 8 & 9 in Annex 4.9). In addition, the project supported fingerlings of local fish species (*Tor putitora*) in these lakes (Figure 10 in Annex 4.9).

During Year I of the project operation, a study titled ‘Organizational Status and Need Assessment Exercise of Agricultural Cooperatives and Farmers Groups Active in LCPV Area’ was accomplished. The study concluded that cooperatives operational in the LCPV area seriously needed capacity strengthening to realize their stated objectives and to better serve their members. Therefore, in Year II capacity building interventions were undertaken. The interventions comprised of specific training/orientation, coaching and mentoring, and regular monitoring and support, which were directed to achieve progress against the six indicators for all the cooperatives (Figure 11 in Annex 4.9). The cooperatives were monitored based on the following indicators: 1) Timely audit; 2) Women representation in Board of Directors of cooperative; 3) Policies for cooperatives; 4) Functional computer-based account keeping system; 5) Manager and Accountant for cooperative (part-time or full-time); and 6) Progress in implementation of business plan as per the cooperative's objective (Table 4).

Table 4: Progress made against the indicators for achieving Output 3

SN	Name of Cooperative	Timely Audit	Women in BoD	Policy preparation	Account Software	Staff	Implement business plan
1	Shree Namuna Pragarik Krishi Sahakari Sashta, Arba, Pokhara -13	Yes	Yes Total=7 (M-4, F-3)=43%	Policy formulation process started	Software installed and used	Yes, 1 Staff 1=Male	Working as per the business plan
2	Nageshawor Krishi Sahakari, Bajhapatan, Pokhara-13	No but done later	Yes Total=9 (F-9)=100%	No progress	Laptop purchased; software used	Yes, 1 Staff 1=Female	No
3	Khaste Matasya Tatha Krishi Sahakari Sasntha, Bhalam Pauja Pokhara - 26	Yes	No Total=11 (M-7, F-3)=27%	5 policies drafted	Yes	Yes, 4 Staff 2=Male 2=Female	Drafted plan
4	Maidi tal Matsya Tatha Krishi Sahakari Sanstha, Pokhara-31	No	No Total=9 (M-7, F-2)=22%	Board decided to hire expert for drafting the policies	Software installed; entering old data	Yes, 2 Staff 2=Female	Proper business plan not prepared
5	Dipang Matsya Tatha Krishi Utpadan Sahakari Sanstha Ltd., Pokhara -27	Yes	Yes Total=9 (M-6, F-3)=33%	8 policies prepared and endorsed	Yes	Yes, 4 Staff 2=Male 2=Female	Yes; conducting business as per the plan
6	Gunde Batabaran Samrkchhan Tatha Matsya	No	Yes	Policy drafting process started	Yes but not in use	Yes, 1 Staff	Yes

	Sahakari Sanstha Ltd., Pokhara-26		Total=11 (M-7, F-4) =36%			1=Female	
7	Deurali Organic Krishi sahakari Sastha, Bhalam, Pokhara-20	Yes	No Total=11 (M-8, F-3)=27%	5 policies prepared and endorsed	Yes	Yes, 2 Staff, 2=Female	Yes
8	Pragatishil Krishi Utpadak Co-operative Limited, AnnapurnaRM-03	Yes	Yes Total=11 (M-6, F-5) =45%	4 policies drafted	Software installed; entering old data	Yes, 1 Staff 1=Female	In process
9	Machapuchhre Utam coffee production co-operative, Annapurna RM-1	Yes	Yes Total=9 (M-6, F-3)=33%	3 policies drafted	Software installed; used partially	Yes, 2 Staff 1=Male 1=Male	Yes
10	Nirmal Coffee Utpadhak Sahakari Sastha Limited, Pok-21	Yes	Yes Total=11 (M-7, F-4)=36%	No progress	No	Yes, 1 Staff 1=Male	NA
11	Rupa Lake Restoration and Fisheries Coop, Rupa RM-6	Yes	No Total=15 (M-12, F-3) =20%	3 policies prepared; others in process	Yes	Yes, 22 Staff 17=Male 5= Female	Yes
12	Panchdham Krishi Co-operative Limited, Annapurna RM-4	Yes	Yes Total=11 (M-3, F-8) =73%	3 policies prepared	Yes	Yes, 1 Staff 1= Female	No
13	Khusi Namuna Multipurpose Cooperative Ltd.	Yes	Yes Total=9 (M-5, F-4)=44%	No progress	No	Yes, 1 Staff 1= Male	NA
14	Harpan Fewa Matasya Sahakri Sastha Ltd.	Yes	Yes Total=9 (M-6, F-3) =44%	No progress	Yes	Yes, 2 Staff 2=Male	NA

Analysis of the Table 4 shows that all cooperatives have made significant progress in four out of six indicators. Noticeable positive changes were observed on following indicators: 1 (timely audit), 2 (women representation in BoD: $\geq 33\%$), 4 (computer-based accounting system), and 5 (hiring manager and accountant), whereas less stellar performance was recorded for indicators 3 (policy formulation) and 6 (business plan formulation and implementation). Women representation in decision making position in cooperative was a major issue identified in Year I report, so concerted efforts were made to change the situation in Year II. The project will monitor these cooperatives and provide some guidance and support in Year III, and ensure they maintain the momentum in policy formulation process, and business plan preparation and execution.

The agriculture and fishery cooperatives were also provided with two trainings: financial management training (18-20 February 2021) and basic account and financing training (21-23 February 2021). The main purpose of financial management training was to provide basic knowledge on financial management to the Board of Directors so that the members who are in the leadership role will be well aware about the financial matter. For the account and financing training, basic information on accounting was given to the manager and the accountant of the cooperative (Figure 12 in Annex 4.9).

Output 4: Policy framework developed for scaling up market-led approaches for agrobiodiversity management for improved livelihood outcomes

Activities will take place in the Year III of the project. Basic groundwork (possible study locations, collection of secondary information of locations, study team composition, discussion on study methodology, etc.) for undertaking proposed activities under Output 4 has been initiated at the end of the Year II, thereby allowing the project team to jump start proposed activities in Year III.

3.2 Progress towards project Outputs

The overall progress of the project can be termed 'satisfactory' because we have made significant progress in achieving Outputs 1, 2, and 3, despite the COVID-19 pandemic. The project team is conducting planning work to accomplish Output 4 in Year III. Hence, the project team is confident that stated project outputs can be achieved by the end of the project. For measuring output indicators, the project is maintaining household-level database of all beneficiaries having the following information: area under keystone crops (logs for Shiitake mushroom, number of hives for honeybee); total production; amount sold; and income received.

3.2.1 Increased income and employment opportunities to small holder farmers through the production and sale of agricultural biodiversity-based products at local and regional markets

The project has made certain progress towards the output 3.2.1. In Year I, a baseline study was conducted among 335 HHs which showed the average production and average income. In Year II, the project team decided to collect household level data on the identified keystone crops. The output level indicator 1.1 (at least 25% import substitution of food items by 50+ hotels, restaurants and homestays) could not be achieved at all because of the lockdown and drastic reduction in tourists in Pokhara. The indicator 1.2 was dropped as reported in Year I Annual Report and subsequent communications with Darwin Initiative (LTS International). The indicator 1.3 (at least 3,000 HHs increase area under, and productivity of, local crops and varieties) has been achieved. The operationalization of Packaging House – Annapaat Agro Private Limited – is expected by June/July 2021, which directly contributes to achieving indicator 1.4 (at least 3,000 HHs use 'unified landscape brand' to access regional and national markets, with annual business of £ 400,000/year by project end). The Table 5 shows the comparative number of HHs and average income realized in 2019 and 2020. Once the Annapaat Agro comes into operation, these agro-products will be marketed under Unified Landscape Brand by the company. Analysis of the figures in the table indicates that the number of farmers involved in cultivation and production of keystone crops/fish increased from 1941 HHs to 4394 HHs thereby meeting the project target (3,500 HHs). However, the corresponding increment in income between the years was marginal (5%), which according to fishery cooperatives and commercial vegetable growers was due to lockdown and subdued demand from tourism industry (COVID-19 impact). In Year III the project will concentrate its efforts in increasing farmers' income by supporting Annapaat Agro in aggressive marketing of agro-products by spurring demand amongst consumers.

Table 5: Number of households and income realized by farmers in LCPV area

SN	Keystone Species	Year I (2019)		Year II (2020)	
		HHs (No)	Income (NPR)	HHs (No)	Income (NPR)
1	Rice (Jethobudho)	-	-	1	700,000
2	Coffee	417	2,834,460	430	3,299,620
3	Foxtail Millet	28	60,775	84	156,080
4	Fresh vegetables	242	3,952,312	242	4,900,287
5	Kiwi	0	0	32	0
6	Honey	106	650,300	138	991,213
7	Shiitake mushroom	1	500,000	45	671,400
8	Fish	1147	40,536,358	3422	40,229,054
	Total	1941	48,534,205	4394	50,947,654

Source: LCPV-DI database 2019 and 2020;

1 GBP = 166 NPR

Note: Kiwi plantation done in Year I and Year II but the production will be realized after 3 years of plantation

3.2.2 Increased consumers awareness and knowledge about the value of local biodiversity based food products.

The indicators 2.1 (Year 2=15,000 individual are made aware of lake pollution through FM radio) and 2.2 (5 episode of Unified Landscape Branding – ULB for consumer awareness in regional market) have been fully achieved. The FM radio programme raised awareness regarding lake pollution and measures taken by provincial government, and shared the concept of the ULB and its purpose among the consumers around LCPV area. Other episodes included: importance of

biodiversity; role of local crop on food and nutritional security; climate change; importance of wetlands; functioning of cooperatives; importance of organic farming; promotion of high value crops like Shiitake mushroom and honeybee; and promotion of local crops like foxtail millet and Jethobudo (Annex 4.7). The project was unable to achieve indicator 2.3 (10 schools implement conservation education) as the schools remain closed for a long time due to COVID-19 pandemic. For achieving indicator 2.4 (consumers pay 10% premium to locally produced safe food), the consumers are already paying premium price to local products like Jethobudo rice, foxtail millet and local fish. Shiitake mushroom and Himalayan honey have niche market, so it's the matter of increasing production and linking them to the market through packaging house – Annapaat Agro.

3.2.3 Local stewardship and capacity for the conservation and management of biodiversity and lake ecosystem enhanced.

The indicator 3.1 (community managed Biodiversity Information Centre - BIC and sale of Unified Landscape Branding products generates GBP ██████ for biodiversity conservation fund – Year II target) was partially achieved (██████) and the shortfall is directly attributed to lockdown and a collapse of tourism industry due to COVID-19 pandemic. During the reporting period, Rupa Lake Rehabilitation and Fisheries Cooperative and the BIC of Sundaridada collected NRP ██████ (£██████) and NRP ██████ (£██████) respectively. With the operationalization of Annapaat Agro (packaging house), the target for Biodiversity Conservation Fund for Year III can be achieved.

The indicator 3.2, i.e., at least 100 local leaders and stakeholders are aware about national and international policies provisions of Ramsar, ITPGRFA, CBD and SDG was not met as the project team was unable to organize orientation programmes during the pandemic.

The project has achieved the revised indicator 3.3, i.e., designated area protected as habitat increase from 5 to 40 ha. In Year II, the indicator was revised upward where the conservation area for native and wild agricultural species, aquatic species, and native/migratory bird species was set as 40 ha. The project managed to achieve the revised indicator by adding 14 hectares of area, with cumulative conservation area amounting to 42.5 ha (Figures 8 & 9).

The indicator 3.4, i.e., Local government increased budget allocation and support of conservation of biodiversity by 50% from baseline figure (Year II=30%) has been achieved. In partnership with the project, Ward 19 of Pokhara Metropolitan City (PMC) has allocated NRP ██████ to produce agriculture and livestock strategy plan (Figure 13). Also, Ward 13 and Ward 19 of PMC have allocated certain budget for promotion of organic villages in four farmer groups. The project is partnering with Aarba Organic Agriculture Cooperative for establishing a seed processing centre, where the Prime Minister Agriculture Modernization Project funded NRP ██████ whereas the LCPV-DI project and the cooperative contributed NRP ██████ and NRP ██████ respectively for the same. The government entities are increasingly setting aside budget for biodiversity conservation actions.

A new indicator 3.5, i.e., Capacity strengthening of 14 cooperatives achieved for conservation and development goals, was added to reflect the major interventions (capacity building) the project is undertaking with cooperatives. These local institutions are engaged in biodiversity conservation, and production and marketing of local agricultural products. They have direct role in local stewardship, and strengthening capacity of these cooperatives helps in enhancing conservation and management of biodiversity. Out of six parameters against which the progress was monitored (Table 4), cooperatives have made significant progress in four whereas partial achievement was made in other two. The project in Year III will focus on sustaining the gains while strengthening cooperative's capacity to implement relevant policies and the business plan.

3.2.4 Policy frameworks developed for scaling up market-led approaches for agrobiodiversity management for improved livelihood outcomes

The indicator 4.1 (Feasibility study of expanding Unified Landscape Brand – ULB in 2 lake ecosystems) and 4.3 (government endorses the guideline for ULB) will be achieved in Year III whereas for achieving indicator 4.2 (evidence from agro-ecotourism and unified landscape branding generated and shared with at least 200 key stakeholders through policy briefs, fact sheet, travelling seminar), the project has supported the establishment of a packaging house –

Annapaat Agro Pvt. Ltd. – which will market the ULB products to local, regional and national markets under the ULB Logo. Dr Maheshwor Dhakal, Secretary to the Ministry of Industry, Tourism, Forest and Environment, Gandaki Province advised that LI-BIRD develop a Memorandum of Understanding (MoU) with the Ministry involving LCDA as a strategy to sustain and scale up market-led approaches for agrobiodiversity management for livelihood outcomes. In Year III, the project will take necessary steps to draft a MoU and facilitate signing process.

3.3 Progress towards the project Outcome

The outcome indicator (0.1) states that at least [REDACTED] increase in income of 3,000 smallholder farmers (50% women-managed households) from the sale of agrobiodiversity products by the end of the project (Year 2=1,000). The project has maintained database of the beneficiaries on the keystone crops. The number of households, area, production and income generated by the beneficiaries in 2019 and 2020 were collected and shared in the following tables.

Table 6: Area, production and income generation of foxtail millet in 2019 and 2020

foxtail Millet	Parameter	2019 (n=28)				2020 (n=84)			
		Area (Ropani)	Production (kg)	Sold (kg)	Income (NPR)	Area (Ropani)	Production (kg)	Sold (kg)	Income (NPR)
	Mean	1.1	41.6	38	[REDACTED]	0.8	32	27	[REDACTED]
	Max	3	120	120	[REDACTED]	2.5	120	117	[REDACTED]
	Min	0.25	3	4.5	[REDACTED]	0.15	0.75	0	0
	Total	31.1	1165	1024	[REDACTED]	71.2	2688	2248	[REDACTED]

Note: 1 Hectare = 19.65 Ropani; 1GBP = 166 NPR

Table 7: Number of logs, production and income of shiitake mushroom in 2019 and 2020

Shiitake Mushroom	Parameter	2019 (n=6)				2020 (n=22)			
		Logs	Production (kg)	Sold (kg)	Income (NPR)	Logs	Production (kg)	Sold (kg)	Income (NPR)
	Mean	130	171	167	[REDACTED]	423	70	59	[REDACTED]
	Max	700	1015	1000	[REDACTED]	2000	820	800	[REDACTED]
	Min	7	0	0	0	3	0	0	0
	Total	777	1023	1000	[REDACTED]	9300	1475	1179	[REDACTED]

Table 8: Number of hives, production and income of honeybee in 2019 and 2020

Honey-bee	Parameter	2019 (n=106)				2020 (n=138)			
		Hives (no)	Production (Ltr)	Sold (Ltr)	Income (NPR)	Hives (no)	Production (Ltr)	Sold (Ltr)	Income (NPR)
	Mean	3	5	3	[REDACTED]	3	8	6	[REDACTED]
	Max	19	165	150	[REDACTED]	30	216	201	[REDACTED]
	Min	1	0	0	0	1	0	0	0
	Total	294	707	500	[REDACTED]	428	1053	794	[REDACTED]

Table 9: Production and income generation of fish in 2019 and 2020

Fish		2019 (n= 4; HH engaged 1477)		2020 (n=6; HH engaged=3422)	
		Production (kg)	Income (NPR)	Production (kg)	Income (NPR)
	Mean	29097	[REDACTED]	15,571	[REDACTED]
	Max	56664	[REDACTED]	42,095	[REDACTED]
	Min	286	[REDACTED]	213	[REDACTED]
	Total	116,388	[REDACTED]	105,425	[REDACTED]

Table 10: Area, Production and income generation of fresh vegetables in 2019 and 2020

Vegetables	Parameter	2019 (n=239)			2020 (n=242)		
		Area (ropani)	Production (kg)	Income (NPR)	Area (ropani)	Production (kg)	Income (NPR)
	Mean	1.3	720	[REDACTED]	1.6	877	[REDACTED]
	Max	4.7	4415	[REDACTED]	6.5	10530	[REDACTED]

	Min	0.1	20	0	0.2	38	0
	Total	299	172104		385	212133	

Note: 1 Hectare= 19.65 Ropani

Table 11: Production and income generation of coffee in 2019 and 2020

Coffee	Parameter	2019 (n=417)		2020 (n=430)	
		Production (kg)	Income (NPR)	Production (Kg)	Income (NPR)
	Mean	977		1137	
	Max	1215		1710	
	Min	147		85	
	Total	4,887		5,689	

Analyses of these tables reveal that increase in income varies greatly across keystone crops or species. For instance, a negative growth in income was noticed in fish (1%), whereas for the rest of the keystone crops a positive income growth was registered that ranged from 16% (coffee) to 157% (foxtail millet), with others in between: fresh vegetables (24%), Shiitake mushroom (34%) and honeybees (52%). Compared to income from other items, income from fish and fresh vegetables has been severely impacted due to nationwide lockdown.

Table 12: Number of self-employed and new employment generated in 2020/21

SN	Area of Employment	Total	Male	Female
1	Foxtail Millet farming	0	0	0
2	Fresh vegetables production	4	2	2
3	Honey production	1	0	1
4	Shiitake Mushroom	1	1	0
5	Tractor operator	2	2	0
6	Cooperatives	15	5	10
	Total	23	10	13

For Outcome indicator (0.2) i.e. 200 new jobs (60% women) created from the production and marketing of the local crops and species (Year 2=150). The major shortfall has been observed in this indicator, with only 23 new self-employment/jobs created though the target was 150. In case of self-employment generated from production of keystone crops, the project team agreed a threshold of NPR [REDACTED] per annum, which is slightly more than the minimum official rate for wage earners. Having that number as a threshold, only a few individuals qualified as self-employed in 2020, but the number will significantly increase for Shiitake mushroom in 2021. Still, the target of 200 new jobs created by the project end seems unattainable. Nevertheless, the project team will do their best to come close to the original target. One of the major activities of Year II was to provide fishing training to interested cooperative members (Figure 14 in Annex 4.9). A total of 21 people were provided with fish catching training and they will be used by the fishery cooperatives for catching fish from the lake. Since they did not earn income this year, they were not included in the above table whereas they will be in next year reporting. Many youths are provided with self-employment opportunities through bee keeping, kiwi farming and vegetable farming (Figure 15 in Annex 4.9). Again, they could not be included as self-employed since they have yet to make noticeable earning from their business, which will take a while for fruits like Kiwi.

The outcome indicator (0.3) is Local government establish mechanism for supporting conservation of biodiversity through their regular plans and programmes. The provincial government as already established Lake Conservation and Development Authority (LCDA). The project is working closely with the LCDA team in establishing cooperative at Begnas Lake. We are also seeking support from the LCDA to institutionalize Biodiversity Conservation Fund (BCF) across all nine lakes. In Year III, the project, in close coordination with LCDA, will focus on institutionalizing BCF across nine lakes and ensure fishery cooperatives allocate 10% of their income to BCF for conservation related work.

3.4 Monitoring of assumptions

The outcome and output level assumptions mostly hold true for the project. Since the beginning of the project there has been enormous support from the local and provincial government bodies

and policy makers. This has created opportunities for programme synergies, resource leveraging, learning and achieving the project goal. The project has been highly successful in mobilizing experts from multidisciplinary fields in awareness campaigns to influence consumer's behaviour and decisions by disseminating information through FM radio programme.

The COVID-19 pandemic has disrupted two output assumptions 1.2 (Hotels and local business associations continue to cooperate in the conservation efforts) and 2.2 (Agrobiodiversity products which are ULB assured are readily available in local and regional markets). In case of assumption 1.2, hotels and restaurant businesses will take a while to recover, so other market segments will be pursued for selling agrobiodiversity products by Annapaat Agro (packaging house). In case of assumption 2.2, due to the pandemic, operationalization of packaging house was delayed by almost 10 months, so instead of mid-Year II the operation has shifted to mid-Year III.

3.5 Impact: achievement of positive impact on biodiversity & poverty alleviation

Positive Impact on Biodiversity: The two main impacts indicated on biodiversity conservation are: (i) conservation of local crop and fish diversity in the LCPV area and (ii) designate protected wetland area for conservation. The project has played significant role in revalorizing foxtail millet, a Neglected and Underutilized Species (NUS) in Nepal. With LCPV-DI project support the number of locations, number of farmers, area and production of foxtail millet have substantially increased thereby conserving NUS crop in the area (refer Table 6 above).

Noticeable impact on biodiversity has been the allocation of wetland area for conservation purpose by different lakes of Pokhara Valley. In Year I, with the project's facilitation, these lakes set aside 28.5 ha land for conservation (habitat for migratory birds), another 14 ha of wetland was allocated in Year II, bringing a total of 42.5 ha as designated protected wetland, which is twice the original target (Figures 8 & 9).

Positive Impact on Poverty Alleviation: The project's results in terms of poverty alleviation is less stellar than its biodiversity conservation record. Nevertheless, hard work (business plan preparation; training on honey bee, shiitake mushroom, fresh vegetables, coffee, kiwi; seed/saplings support) put in by the project staff, local resource persons, and consultants have started paying dividends with farmers realizing increased income from agrobiodiversity-based products (Tables 6 – 11 above). Likewise, the project was able to add 23 new jobs (Table 12) directly contributing to poverty alleviation. Results on impact on poverty alleviation (income and employment) will be more impressive in Year III provided operating conditions due to the pandemic do not deteriorate further.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

- a) **No poverty:** As per SDG National Report (2016-2030), poverty in Nepal is linked with slow economic growth, underemployment, and social and geographical exclusion. The slow economic growth calls for scaling up productivity through high level of investments from development partners. Hence, the project focuses on uplifting the livelihood of farmers through investments in value chain process that increases household income and create decent jobs in agriculture sector. However, due to the pandemic, the economic growth has been severely affected.
- b) **End Hunger:** Agricultural transformation is needed for food security, sustainable economic growth, and poverty reduction. The use of science, new technology and innovation will help to achieve SDG 2. The project is prioritizing the use of new and improved technologies for increasing agricultural productivity, and production of safe/healthy food. Supporting farmers with agricultural inputs, establishing value chain for agricultural products, working on high value crops, researching on local crops and providing need-based training are some of the contribution project is making to achieve SDG 2.
- c) **Health and Well Being:** Good health starts with nutritious food and the project is introducing interventions for improvement of agricultural productivity by encouraging diversification of production. Promotion of local crops like foxtail millet does not only diversify the production

system but also improves nutrition. The project is training farmers to follow Good Agricultural Practices (GAP) while producing safe and healthy food thus contributing to SDG 3.

- d) **Decent Work and Economic Growth:** By focusing on high value crops and increased productivity, the project is contributing to increasing agricultural GDP. The project is focusing on decent wage for farm workers and self-employed family members thereby contributing to SDG 8.
- e) **Reduced Inequality:** By ensuring that there is reduction in inequalities, the project is working on achieving SDG 10 by promoting economic inclusion of all regardless of sex or ethnicity. The project has been successful in increasing women representation in cooperative's Board of Director thus directly contributing to reducing inequality. The project is focussing on introducing intervention like bee keeping (women), shiitake mushroom cultivation and kiwi cultivation (youth and migrants) so they have access to skills, information and resources.
- f) **Responsible Consumption and Production:** The project is promoting sustainable management and efficient use of natural resources, motivating farmers to move towards organic/conservation farming (safe food), reducing use of chemicals, and reducing waste in the processing sector and at consumer level thus contributing to SDG 12.
- g) **Life on land:** SDG 15 is about conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services. In the Lake Cluster of Pokhara Valley (LCPV) area, the project is working together with fishery cooperatives for sustainable management of lake resources that also includes wetland delineation for biodiversity conservation and promotion of local fish species in lakes.
- h) **Partnership to achieve goals:** SDG 17 clearly states forging multi-stakeholder partnership from global to local institutions to achieve SDGs. The project has a partnership of a dozen institutions, representing public, private, cooperatives, and civil society, building on the expertise and experience of each partner including resourcing strategies for achieving SDGs.

5. Project support to the Conventions, Treaties or Agreements

The LCPV-DI project directly contributes to three conventions: Ramsar Conventions on Wetlands, Conventions on Biological Diversity (CBD), and International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

Nepal has a long history of the wetland conservation. The LCPV is the largest Ramsar site in Nepal. According to the National Ramsar Strategy and Action Plan (2018-2024) of Nepal, the LCPV provides cultural wetland ecosystem services from Nepal. The LCPV have religious-cultural, aesthetic/ecotourism, spiritual, recreational, inspirational, socio-economic, and educational values.

According to the National Ramsar Strategy and Action Plan (2018-2024), the existing institutions including sectoral ministries, intergovernmental bodies, and research institutions are actively working in knowledge generation, dissemination, and management of wetlands in Nepal. There also exist many strategies and policies that guide wetlands management. Some of the practices important for Ramsar implementation are: i) Integrated Watershed Management Approach, ii) Integrated Water Resource Management Approach, iii) Integrated Lake Basin Management Approach, iv) Cooperative Management of Lakes, and v) Payment for Ecosystem Services.

Among these practices, the LCPV-DI project is supporting and advocating the importance of cooperative management of Lakes and Payment for Ecosystem Services as envisioned in National Ramsar Strategy and Action Plan (2018-2024). Lakes managed by cooperatives are seen to be successful than the ones without cooperatives. From the need assessment study done in Year I, it was apparent that most of the cooperatives were not aware about the cooperative strategic plan. Therefore, in Year II the project provided training to agriculture and fishery cooperatives on financial management aspects (18-20 February 2021) and Basic Account and financing matters (21-23 February 2021) to the board of directors and management committee members of the cooperatives in the LCPV area (Figure 12). The project helped the

cooperatives internalize the importance of Payment of Ecosystem Services mechanism. The fishery cooperatives have agreed to allocate 10% of their net profit to Biodiversity Conservation Fund, which will be used for conservation activities in upstream communities (watershed).

Nepal's commitment to the CBD is for reduction in the rate of loss of biodiversity. Taking this into consideration, the LCPV-DI project is working on conserving the biodiversity through awareness programme, encouraging communities to allocate designated conservation sites, facilitating farmers to conserve local crop varieties and their wild relatives, conserve fish species diversity, and provide necessary technical support and facilitate access to financial support where needed. The main objectives of CBD are: i) Conservation of biological diversity; ii) Sustainable use of its components; and iii) Fair and equitable sharing of benefits derived from its use.

The National Biodiversity Strategy and Action Plan 2014-2020 (NBSAP) aims to provide a strategic framework for the conservation and management of Nepal's biodiversity. The NBSAP progress is assessed against 58 national indicators for meeting the 20 Aichi Biodiversity Targets (ABT), which falls under five strategic goals. While some progress has been made by the Government of Nepal, there is still a lot to be done. Some of the ABT in which LCPV-DI project is working include: i) Raising awareness on biodiversity conservation among community people and school children; ii) Promoting sustainable agricultural production using Low External Input Use technologies (Organic-oriented or conservation and ecological farming practices); iii) Conservation of local crops and fish diversity by popularizing their special traits (nutritional value, taste, cultural value, safe production technologies etc.) to general public; iv) Establish market linkages to local crops and fish species so that producers derive equitable benefits from their production and sale; and v) Knowledge generation on biodiversity through action research in the field and publication of results for wider sharing.

Promotion of Pokhareli Jethobudho, Anadi rice and foxtail millet are linked to Article 6 of the ITPGRFA i.e. Conservation and Sustainable Use. There are many provisions but it can be linked to 6.2.e i.e. promoting, as appropriate, the expanded use of local and locally adapted crops, varieties and underutilized species.

6. Project support to poverty alleviation

The twin goals of the project are biodiversity conservation and livelihood improvement. The project supports smallholder farmers and disadvantaged people to improve their living condition and livelihoods. Inadequate income generating opportunities or less knowledge regarding such opportunities amongst rural population present a major issue. The project has been working to resolve the issue by transferring knowledge and skills, and generating self-employment opportunities to the farmers. The result has been well captured in Section 3.5 above (Positive Impact on Poverty Alleviation).

We would like to present innovative interventions introduced by the project for poverty alleviation targeting smallholder farmers (i.e. Bee-keeping, Shiitake mushroom, Kiwi fruit for labour deficit households), which are expected to fetch good income (Figures 15 & 16 in Annex 4.9). Nonetheless, the above interventions need high investment upfront, so the project is co-funding the costs while also negotiating with local and provincial governments for matching grants for such interventions thereby lowering the financial burden on smallholder farmers. Except for honeybees, other two interventions, though lucrative, require longer gestation period (1-3 years) to generate income. Another challenge for smallholder farmers is to find a reliable marketing channel with guaranteed fair price for the produce. With the establishment and operationalization of Annapaat Agro Pvt. Ltd., farmers' marketing problem will be resolved thereby motivating farmers to produce without having to worry about the marketing and payment aspects.

7. Consideration of gender equality issues

The project is working on reducing inequality as it strengthens economies and build resilient societies. The project team has become more proactive in including women in skills-oriented trainings, material support and decision making positions. Consequently, the number of women participants has increased from 49% in 2019 to 57% in 2020. The project has introduced specific interventions (honeybee, shiitake mushroom, fresh vegetables, and Kiwi fruit) that target women,

youths, and migrants who are often disadvantaged in accessing information, opportunities and resources (Figures 15 & 16 in Annex 4.9).

Cooperatives had only a few women in decision-making positions (Board of Directors and Managers) and this year the project was able to persuade cooperatives to include more women in decision making positions, ranging from 20% to 73% in mixed groups (Table 4).

8. Monitoring and evaluation

The systems and processes employed internally to monitor and evaluate the project during Year II of the project include:

Activity-to output monitoring: The project team organized frequent virtual meetings in the initial months of the lockdown period. Since the project staffs were scattered in different places, it was important to ensure that everyone was on the same page. This was achieved through frequent meetings accompanied by each project staff preparing Individual Operating Plan, which helped to keep track of the progress. LI-BIRD Management Committee also developed a monitoring system to ensure the staff deliver their best when they are confined to work from home/duty station with limited field mobility. After the lockdown was lifted, the project team organized meetings on fortnightly basis to take immediate decisions and implement the project activities.

Output-to-outcome monitoring: Two partners meeting were organized where the project staff shared the activities, budget and progress of Year I and Year II. However, Annual Review and Planning Meeting planned for mid-March 2021 could not take place this year as well because of second wave of coronavirus cases.

Initially, Outcome Monitoring Survey (sample survey) on annual basis was proposed but instead the project team opted for database management of all the participant farmers, which proved to be more accurate and useful when planning for value chain and marketing activities. Complete database of the beneficiaries engaged in different keystone crops are maintained up-to-date. Besides that, LI-BIRD maintains in a separate database the list of beneficiaries, disaggregated by gender, involved in project activities like trainings, orientations, material support etc.

Budget-variance monitoring: Since the project team was under tremendous pressure to deliver planned activities within a short span of time (COVID-19 lockdown), the project team including account officer closely followed monthly planning and expenditure pattern, and made adjustments where necessary. This mechanism helped us to achieve decent burn rate of 98%.

9. Lessons learnt

Some important lessons have been learnt from the LCPV-DI project operations, which will be utilized for designing and executing similar projects by the organization.

- Decent self-employment (comparable to minimum wage in formal sector)/jobs creation in agricultural sector is extremely difficult, especially when dealing with smallholder farmers. So, we need to be more humble while setting targets at the proposal development phase.
- While working on value chain approach involving smallholder farmers, it's imperative to include some larger landholder farmers to ensure quality, quantity and regularity in agro-products supply chain. This is an important lesson worth emulating in other projects.
- Honey production (10 hives/HH) can be an important means for income generation and poverty alleviation targeting land-poor households. However, initial investment cost is high, so co-funding from government agencies and development partners is essential.

10. Actions taken in response to previous reviews (if applicable)

The last year's annual report and its review report was shared with the partner organizations and they agree with the donor review and recommendations. The project team fully internalized the issues raised by the reviewer, and worked on addressing the issues.

In Year I, the project team worked on preparing business plan of fishery cooperatives but these documents (in Nepali language) were not shared as evidence, now they are included in Annex

4.5. Again the documentary evidences related to partner and PSC meeting were missing (meeting minute, presentation slides), which can be found in Annexes 4.1 & 4.2. One comment indicated that the PSC meeting was not happening frequently. So, the project team planned to organize 4 PSC meetings in Year II. But due to COVID 19 pandemic we could only organize one.

Another important issue was to ensure gender equality in the LCPV area. The project team carefully monitored, planned and advocated the need of gender equality to relevant stakeholders (Figures 15 & 16 in Annex 4.9). Consequently, we have achieved significant progress in this matter (Section 7: Consideration of Gender Equality Issues).

11. Other comments on progress not covered elsewhere

No comments.

12. Sustainability and legacy

The project has been transparent about its work, hence we have received overwhelming support from the local government and the provincial government. The project activities, budget, and achievements are shared with the partners and with Project Steering Committee members which includes Mayor of Pokhara Metropolitan City, Secretary of Ministry of Industry, Tourism, Forest and Environment, and Ministry of Land Management, Agriculture and Cooperative. We are also sharing the project concept with high level government officials, academicians, representatives from civil society organizations, and private sector actors. The project is working with the fishery cooperatives, and have highlighted the importance of developing an inbuilt mechanism to set aside certain percentage (10%) of their profit as Biodiversity Conservation Fund (BCF) to ensure sustainability of conservation efforts. The project is closely working with Lake Conservation and Development Authority (LCDA) to operationalize BCF. The relevant provincial ministry (Ministry of Industry, Tourism, Forest and Environment) is keen to continue with the legacy of BCF, and the project will work towards this objective in Year III.

Another effort the project has achieved to guarantee sustainability is through establishment and operationalization of a packaging house – Annapaat Agro Pvt. Ltd. – expected to be operational by June/July 2021. The packaging house will be directly linked with the farmers producing agrobiodiversity-based products. Also, the packaging house has an inbuilt mechanism to set aside 3-7% of the net profit to BCF.

The exit strategy is still valid and there is no any changes to what was proposed. The above mentioned collaboration guarantees a sustained legacy of our project outcomes.

13. Darwin identity

The project team have been working with different local, provincial level government and non-governmental institutions. During the meetings with such stakeholders, the project has always publicised the Darwin Initiative logo, and the funding is also made transparent. During PSC meeting and partners meetings, stakeholders are made aware about the UK government's contribution and the DI logo through verbal presentations or through the banner (Figure 2).

The Darwin Initiative funding project is recognized as a distinct project named as Lake Cluster of Pokhara Valley-Darwin Initiative (LCPV-DI) among the organizations. Also, the project is discussed as a distinct project among the relevant stakeholders at local and provincial levels.

The relevant local government bodies at local (Pokhara Metropolitan City, Rupa Rural Municipality, Annapurna Rural Municipality) and provincial level (Ministry of land Management, Agriculture and Cooperative; Lake Conservation and Development Authority; Ministry of Industry, Tourism, Forest and Environment Ministry; Begnas Fishery Research Centre-NARC) are familiar with Darwin Initiative project and the works being done in LCPV area.

LI-BIRD shares its blogs, articles, reports and publication on its website at www.libird.org. In this webpage, baseline report, need assessment report and market study report are uploaded where viewers can easily access those articles. Besides that, LI-BIRD also has its sound cloud account

at <https://soundcloud.com/li-birdko-chautari> where the radio programme can be accessed. The project team prepared 12 radio episodes for generating consumer awareness through biodiversity conservation related topics can be found in Annex 4.7.

14. Impact of COVID-19 on project delivery

The onset of Year II project activities coincided with the Government of Nepal issuing a strict nationwide lockdown from 24 March 2020 as a measure to control the spread of the pandemic. The lockdown of this nature was unprecedented, with limited advance notice for preparation, which caught us unprepared to handle the situation. During lockdown, each staff prepared Individual Operating Plan (IOP) to utilize the time effectively and later shared with LI-BIRD management. As the lockdown was slightly eased after 11 June 2020, local level staff resumed their duties in the field still the inter-district travel was restricted, which means Principal Investigator and Co-investigator could not join the office in Pokhara. In such a situation, we managed to communicate amongst ourselves through the virtual medium. The project team organized virtual staff meeting frequently and started to adjust the work plan to maintain delivery. Having local level field staff and local resource persons proved to be a great asset in our case.

The major negative impact was seen for the establishment of the packaging house. As per the project plan, the packaging house should have come into operation by middle of Year II (September 2020). But this could not be achieved, and is planned to start from June/July 2021.

After the lockdown was relaxed the project staff organized staff meeting to take stock of the situation, and developed revised workplan, which was strictly followed. While conducting fieldwork, staff used official vehicle for field travel and avoided public transport, used masks and sanitizers when visiting the sites, and strictly observed social distancing in meetings. Instead of large gatherings, the project resorted to smaller gatherings for training events. The project staff made sure to use proper precautions when interacting with people in the community.

During the COVID-19 pandemic lockdown the project team communicated through digital means and conducted virtual meetings on regular basis. We also did the same with relevant stakeholders, and such communication means will become more prevalent in future.

As we write this report, Nepal is going through a second wave of COVID-19 pandemic, with two-week lockdown starting from 29 April 2021. Since the situation is fast evolving, it's difficult to predict the impact of the pandemic and mitigation measures on project deliverables in Year III. We will closely keep track of the events and update Darwin Initiative of the situation.

15. Safeguarding

LI-BIRD as the lead organization takes LI responsibility to ensure that safeguarding policies and practices are consistently applied to staff, partners and beneficiaries throughout its operations. The organization has several relevant policies and mechanism in place:

- LI-BIRD Personnel (Administrative) Service Rules 2064 (2007)
- Conflict of Interest Policy (2016)
- Whistle Blower Policy (2018)
- Child Protection Policy (2018)
- Safeguarding Policy of LI-BIRD (2019)

These documents are not available in LI-BIRD website but can be provided upon request.

The onus of consistently applying the above mentioned policies lies with LI-BIRD management, with Executive Board providing oversight. LI-BIRD has a robust system in place to translate those policies into practice, which include but are not limited to the following: 1) new staff and intern orientation, where they are provided with the documents to study as well as Q&A sessions with Human Resource (HR) Manager; 2) orientation to partners on above subjects; 3) summary is attached as Annex to the contract with partner organizations and consultants; 4) a separate forum

for women staff to discuss their issues; 5) multirater feedback mechanism included in staff Annual Performance Appraisal Agreement (APAA); and 6) staff Job Description (JD) includes issues pertaining to Safeguarding Policies and Procedures.

All LI-BIRD staff and interns are obliged to sign Code of Conduct (CoC) at the time of signing their employment contracts. The CoC clearly highlights the DOs and DON'Ts and sets out clear expectations of behaviours for staff and interns at all times.

Within LI-BIRD, HR Manager is the focal person for reporting any safeguarding issues. That said, Executive Director can also be directly contacted/reported. Depending on the type of issues being reported, a small committee is formed to investigate the matter and report to Management Committee, which makes the decision on the matter. The LCPV-DI project has not experienced any safeguarding issues till date. Nevertheless, the policy will be reinforced during staff meetings.

16. Project expenditure

The LCPV-DI project received a sum of GBP [REDACTED] (In words: Great Britain [REDACTED] [REDACTED] for conducting project related activities for a period of 12 months (1 April 2020 – 31 March 2021). The project team have diligently spent the grant money in accomplishing project related activities to the highest standard possible, completely adhering to procurement policies and any other relevant policies of the organization while conducting the activities. We have always respected and taken into consideration value for money in procuring services, materials and equipment.

By 31 March 2021, the project was able to spend GBP [REDACTED] out of [REDACTED] allocated budget with burn rate of [REDACTED] (variance of 2%) as presented in Table 13. During the same period, the project was able to generate GBP [REDACTED] of co-funding from different sources (detail recorded in co-funding recording format can be provided upon request) including individual farmers.

Table 13: Project expenditure during the reporting period (1 April 2020 – 31 March 2021)

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Consultancy costs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Overhead Costs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Travel and subsistence	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Operating Costs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Capital items (see below)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Monitoring & Evaluation (M&E)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Others (see below)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

There was no changes to the original budget. Also, as can be seen in the Table 13, the variation in expenditure for line items is well within the Darwin Initiative permissible limit of +/- 10%, with overall variance of [REDACTED]. Hence, prior discussion with and approval by Darwin was not sought.

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2020-2021

Project summary	Measurable Indicators	Progress and Achievements April 2020 - March 2021	Actions required/planned for next period
<p>Impact</p> <p>Smallholder farmers in Nepal have secured livelihoods, improved well-being, and healthy environment through the sustainable management and utilization of agrobiodiversity</p>		<p>The project is completely in line with achieving the stated impact in the longer term given that project interventions for 2nd year were completed, with outputs indicators already achieved in some cases, while for others a firm background has been set for speedy take off.</p>	
<p>Outcome</p> <p>Improved livelihoods of 3000 smallholder farmers through application of ecologically sound and scalable market-based solutions to agricultural and aquatic biodiversity management in Lake Cluster of Pokhara Valley</p>	<p>0.1) At least 70% increase in income of 3000 smallholder farmers (50% women-managed households) from the sale of agrobiodiversity products by end of project (Year 1 = 400; Year 2 = 1500; Year 3 = 3000)</p> <p>0.2) 200 new jobs (60% women) created from the production and marketing of the local crops and species (Year 1 = 30; Year 2 = 150; Year 3 = 200)</p> <p>0.3) Local government establish mechanism for supporting conservation of biodiversity through their regular plans and programmes</p>	<p>0.1) Major production related activities of keystone crops (shiitake mushroom, foxtail millet, honey, fish, vegetables, fruits, coffee) has been achieved in Year II. A negative growth in income was noticed in fish (0.76%), whereas for the rest of the keystone crops a positive income growth was registered that ranged from 16.4% (coffee) to 157% (foxtail millet), with others in between: fresh vegetables (24%), Shiitake mushroom (34%) and honeybees (52.4%).</p> <p>0.2) High value crops i.e. kiwi, shiitake mushroom, coffee, fresh vegetables, honey, fish etc. have generated new self-employment. Only 23 new self-employment/job is observed in Year II. Also, fish catching training was provided to 21 people whose skill will be used by the lakes for fishing purpose.</p> <p>0.3) Collaboration with Lake Conservation and Development Authority for cooperative establishment and facilitation done for allocating fund in Biodiversity Conservation Fund for conservation related work in future.</p>	<p>0.1) For the 3rd year, these women managed households will increase their income by selling their products to Packaging House; additional HHs will be covered in the scheme as per plan. HH sales record and Packaging House purchase and sales record will verify the income.</p> <p>0.2) Operationalization of Packaging House will generate new jobs; and expansion of high value crops (Shiitake, honeybee, vegetables) will generate self-employment thus approaching new job creation target.</p> <p>0.3) Closely work with local and provincial governments to increase the scope of support, amount of support, and geographic coverage. The Begnas fishery group will be formed into a cooperative and all the lakes conservation committee will allocate certain percent (10%) of their profit for BCF.</p>

<p>Output 1. Increased income and employment opportunities to smallholder farmers through the production and sale of agricultural biodiversity-based products at local and regional markets</p>	<p>1.1) At least 25% of the import (from outside LCPV) substitution of food items (vegetables – leafy vegetables, chilies; local rice – Jethobudho, Jhinuwa, Anadi; Coffee; foxtail millet; taro & yam; honey; citrus; mushroom; local fish – Katle, Sahar, Asala; local poultry; local goat) by 50+ restaurants, hotels and home stays (Year 1 = 0%; Year 2 = 10%; Year 3 = 25%)</p> <p>1.2) Indicator Removed (explanation given in first Annual Report)</p> <p>1.3) At least 3000 households increase area under, and productivity of local crops and varieties (Year 1 = 300; Year 2 = 2000; Year 3 = 3000)</p> <p>1.4) At least 3000 households use 'unified landscape brand' to access regional and national markets (Year 1 = 400; Year 2 = 2000; Year 3 = 3,000), with annual business of £ 400,000/year by project end</p>	<p>Indicator 1.1 for the second year, the project worked on providing technical, financial and material support to the farmers who are cultivating the keystone crops (aromatic fine type rice – Jethobudho, coffee, foxtail millet, shiitake mushroom, honey, fresh vegetables, fruits and fish). Necessary training to farmers and material support on cost sharing basis provided in case of shiitake mushroom, honey, foxtail millet, fresh vegetables, fruits, and fish production. Packaging House in the process of establishment and will be fully functional by middle of 3rd year. The indicator is valid and can be achieved by project end provided the COVID-19 second wave does not disrupt the project operations severely.</p> <p>Indicator 1.2 has been removed because the project will work towards ensuring that 100% of the produce pass through Packaging House, which makes this indicator redundant because monitoring of sales record and payment to Biodiversity Conservation Fund (BCF), which is a cornerstone of sustainable management of lake ecosystem, cannot be achieved when individuals are allowed to interact with markets independently. This is indicated in revised logical framework.</p> <p>Indicator 1.3 is achieved in Year II and will make progress in Year III as well. There has been increase in number of households, area and productivity of local crops and varieties.</p> <p>Indicators 1.4 is relevant and achievable and interventions are well underway to achieve those indicators/targets after the functioning of the packaging house – Annapaat Agro Pvt. Ltd.– as agro-products will be marketed by the company.</p>	
<p>Activity 1.1 Review, identify and, develop Good Agriculture Practice (GAP) and prepare training manual for targeted commodities</p>	<p>Good Aquaculture practice (GAqP) training manual is prepared; the manual will be used by resource person for training to fishery cooperatives.</p>	<p>GAP manuals on vegetable production will be prepared in year III and training provided to farmers in coming year.</p>	
<p>Activity 1.2. Organize Farmer's Field Schools (FFSs) to develop and promote GAPs and build capacity of farming communities to produce safe and healthy foods</p>	<p>Targeted short hands-on skill oriented trainings regarding bee-keeping, bee-hive management, nursery management, kiwi plantation are provided along with material support where needed, followed by regular monitoring and supervision. In total, 1041 beneficiaries were supported (594 female farmers supported), and this number will be increase in 3rd year as well. Farmers were provided training on bio-pesticides preparation as well.</p>	<p>Similar approach will be applied for all keystone crops for GAP promotion with increased scale of operation.</p>	

<p>Activity 1.3 Produce and distribute quality seeds and planting materials and establishment of multipurpose nursery to increase local access to quality planting materials</p>	<p>The project distributed seasonal vegetables to 438 farmers. Besides that, the project distributed kiwi saplings to 32 farmers.</p>	<p>Quality seeds and planting materials will be provided only to farmers engaged in commercial production. Those farmers will be linked with the packaging house. Whereas technical advice will be provided to all the farmers involved with the project.</p>
<p>Activity 1.4 Pilot and promote output based incentive mechanism for commercialization of agrobiodiversity products in partnership with local government</p>	<p>71 farmers were supported with foxtail millet seeds. The farmer groups cultivating foxtail millet were also supported with mini tiller for efficient land preparation/ploughing. Talks with Government initiated for minimum support price for foxtail millet for its promotion.</p>	<p>The focus will be to support organic village; increase amount of support provided; and encourage local government to support in market promotion activities to support commercialization of agrobiodiversity products (minimum support price to be extended to foxtail millet).</p>
<p>Activity 1.5 Establish and operationalize ULB mechanism including quality control by engaging local and provincial governments, communities and other relevant stakeholders</p>	<p>A packaging house is registered as Annapaat Agro Pvt. Ltd. and its establishment work is going on. By the middle of 3rd year, the company will be functioning smoothly.</p>	<p>The ULB mechanism will be fully operationalized through Packaging House by engaging relevant stakeholders by the middle of 3rd year.</p>
<p>Activity 1.6 Support private entrepreneurs and cooperatives to establish a pack-house for collection, sorting, grading, packaging, labelling, and marketing of ULB certified products in local, regional and national markets</p>	<p>The project is supporting Packaging House with packaging materials and machines for milling process. The farmers are encouraged to engage in quality and safe food production by adopting GAP and link the products to Packaging House.</p>	<p>Packaging house will run smoothly in 3rd year and the products coming from farmers will be processed, packed and sold at local, regional and national markets.</p>
<p>Output 2. Increased consumers awareness and knowledge about the value of local biodiversity based food products</p>	<p>2.1) Level of pollution and eutrophication to the lake ecosystem in LCPV watershed monitored and communicated to 30,000 users and general people through various means such as school programmes, local FM radio programmes, fairs, flyers and relevant networks (Year 1 = 5,000; Year 2 = 15,000; Year 2 = 30,000)</p> <p>2.2) 12 episodes of 'unified landscape branding' broadcasted through local FM radios for consumer awareness in local and regional markets (Year 1 = 3; Year 2 = 5; and Year 3 = 4)</p>	<p>In 2nd year the information regarding level of pollution and eutrophication to the lake ecosystem was disseminated to consumers through FM radio. Such information will be communicated among school students in Year III.</p> <p>For achieving Indicator 2.2, the consumer awareness related activity was carried out by disseminating information through FM. Similar activity may be repeated in Year III as well.</p> <p>3rd year will focus on inducting additional schools and organizing lectures on biodiversity conservation, participation in fairs, and exposure visits to Biodiversity Information Centre (contingent upon schools reopening after second wave of COVID-19 pandemic induced lockdown).</p> <p>Consumers are already paying premium price for crops like Jethobudo, foxtail millet and local fish. The consumers will pay premium price to honey and shiitake mushroom as well. It's expected that Annapaat Agro will be able to sell agro-</p>

	<p>2.3) 10 schools implement conservation education and uses agrobiodiversity products produced from project communities linking with hostels/canteens</p> <p>2.4) Consumers pay at least 10% higher price for the products with 'unified landscape branding' in market place</p>	<p>products under Unified Landscape Brand logo at competitive price to the consumers and capture some share in local, regional and national markets.</p>
<p>Activity 2.1. Provide training and support to local hotels, restaurants and home stays to promote local food recipes and menu</p>		<p>This activity was halted due to COVID-19 pandemic.</p> <p>The focus will be to supply hotels and restaurants with agrobiodiversity products as per their demand. Also, the project will prepare new recipes for inclusion in menus of hotels and restaurants.</p>
<p>Activity 2.2. Conduct school programmes in LCPV areas to increase conservation awareness; engage with school hostels and canteens to promote agrobiodiversity products</p>		<p>The programme was halted due to COVID-19 pandemic and schools remaining closed.</p> <p>In Year III, 4 schools will be given tour to the information centre. The project staff will conduct guest lectures in schools/colleges on biodiversity conservation. Packaging House will contact several schools as potential buyers for agrobiodiversity products.</p>
<p>Activity 2.3. Develop and disseminate information and communication materials (FM Radio advertisement, information boards, flyers, and social media) for general people and consumers for promoting 'unified landscape brand'</p>		<p>An episode on ULB mechanism was shared through FM programme.</p> <p>Other consumer awareness for promoting ULB will be disseminated in the community and for general public by packaging house (website, social media, leaflets etc.).</p>
<p>Activity 2.4. Organize/participate in the local food campaigns (Fairs, Street Food Festivals) and consumer awareness programme to promote agrobiodiversity base products and 'unified landscape brand'</p>		<p>The local food campaign could not be organized in Year II due to COVID-19 pandemic.</p> <p>The project will support Packaging House to have a stall in street festival and other fairs promoting local food for consumer awareness in Year III.</p>
<p>Activity 2.5. Online marketing system for LCPV branded food products</p>		<p>Annapaat Agro's website is being developed; the site will have portal for online marketing.</p> <p>Packaging House online marketing for selling LCPV branded products will be functional in Year III.</p>
<p>Output 3. Local stewardship and capacity for the conservation and management of biodiversity and lake ecosystem enhanced</p>	<p>3.1) Community managed biodiversity information centre and sale of ULB products generates GBP 10,000 per annum for the conservation fund to support biodiversity conservation and</p>	<p>Rupa Lake Rehabilitation and Fisheries Cooperative and Biodiversity Information Centre generated GBP 1,557 and GBP 665 respectively for Biodiversity Conservation Fund (BCF). All fishery cooperatives have endorsed Unified Landscape Brand, and have agreed to allocate 10% net profit to BCF in their business plan. It's important to implement the agreement to reach the project end</p>

	<p>lake pollution control in LCPV (Year 1 = GBP 3,000; Year 2 = GBP 5,000; Year 3 = GBP 10,000)</p> <p>3.2) At least 100 local leaders and stakeholders (50% women) are aware about the national and international policies provisions of Ramsar, ITPGRFA, CBD and SDG and are able to relate to their roles and responsibilities (Year 1 = 50; Year 2 = 100; Year 3 = 100)</p> <p>3.3) Designated area protected as habitat increased from 5 ha to 40 ha for native and wild agricultural, aquatic species and native/migratory bird species in LCPV area (Year 1 = 28.5 ha; Year 2 = 32 ha; Year 3 = 40 ha)</p> <p>3.4) Local government increased budget allocation and support for conservation of biodiversity by 50% from baseline figure (Year 1 = 10%; Year 2 = 30%; Year 3 = 50%)</p> <p>3.5) New Indicator: Capacity strengthening of 14 cooperatives achieved for conservation and development goals.</p>	<p>target of GBP 10,000 for BCF. Additionally, the Packaging House will contribute to BCF thus the fund will be sizable for undertaking biodiversity conservation activities in the LCPV area. Institutionalization of the mechanism is important for continuity of funding in longer term.</p> <p>Local leaders and policymakers are well aware on conservation of biodiversity and sustainable use of natural resources. They are ready to co-fund credible projects on conservation, so we see a good scope to leverage resources there, which we have already done and will continue to do so.</p> <p>Additional 14 hectares (Dipang=6 ha; Begnas=8 ha) of area already allocated for the conservation purpose. We have already exceeded (42.5 ha) even the revised target (40 ha). Efforts will continue to add more land under wetland conservation in Year III as well.</p> <p>In partnership with the project, Ward 19 of Pokhara Metropolitan City has allocated NRP 550,000 to produce agriculture and livestock strategy plan (Figure 13). Also, Ward 13 and Ward 19 of PMC have allocated certain budget for promotion of organic villages in four farmer groups. Area of technical collaboration and synergy in programmes will be explored with PMC, Rupa Rural Municipality and Annapurna Rural Municipality for realizing impact at scale and project legacy.</p> <p>Capacity building interventions have been undertaken for cooperatives. The progress is reflected against the six indicators for all the cooperatives. The cooperatives were monitored based on the following indicators: 1) Timely audit); 2) GESI in Board of Directors of cooperatives; 3) Policies for cooperatives; 4) Functional computer-based account keeping system; 5) Manager and Accountant for cooperatives (part-time or full-time); and 6) Progress in implementation of business plan as per the cooperative's objectives. Appreciable progress made in four out of six indicators with partial success in other two indicators.</p>
<p>Activity 3.1. Collaborate with local, regional and national market-outlets for increasing availability of LCPV branded products to consumers</p>	<p>There was no collaboration with local and regional market outlet for increasing the availability of LCPV branded product due to the pandemic.</p>	<p>Look out for more market outlets in local, regional and national markets to make LCPV branded product available. Packaging House will lead the process and the project will support.</p>
<p>Activity 3.2. Form and operationalize multi-stakeholder Project Advisory Committee (PAC)</p>	<p>A multi stakeholder Project Steering Committee (PSC) meeting was organized.</p>	<p>The PSC meeting will be done to review the work progress of previous year and plan for the coming year as well.</p>

<p>Activity 3.3. Establish and strengthen Collection Centres or Biodiversity Information Centres in LCPV area for conservation awareness, and serving as outlets for selling agrobiodiversity products</p>	<p>A prospective site for establishing BIC was selected and established in collaboration with Panchadham Agriculture Development Cooperative. The already established BIC at Sundaridada was strengthened.</p>	<p>Provide needed support from the project level to maintain the information centre in Panchadham area. Additional support will be provided in Year III to fully operationalize the BIC at Panchadham area.</p>
<p>Activity 3.4. Conduct training/workshops for local leaders and stakeholders on national and international policies provisions particularly on Ramsar convention, CBD, ITPGRFA and SDGs</p>	<p>Organized 3-day workshop to local leaders, representatives of organizations, and project staff. The workshop was on “National Policies and Practices in Agrobiodiversity Management, Farmers Rights, Right to Food and Climate Resilient/Agro Ecological Agriculture’.</p>	<p>More orientations on international conventions will be organized for local leaders/stakeholders in Year III.</p>
<p>Activity 3.5. Monitor the level of pollution (eutrophication, toxicity, sedimentation, and invasive species) in selected lakes in LCPV and utilize the findings to inform public to galvanise support for conservation efforts in Ramsar areas</p>	<p>The dissemination materials shared through FM radio to inform local communities and wider public to support conservation efforts in Ramsar area.</p>	
<p>Activity 3.6. Support lake management committees, women groups and lake cooperatives to conserve the habitat of local fish, wild rice and wetland/migratory birds</p>	<p>Provided financial support to two lakes - Begnas Lake and Diapng Lake for habitat conservation for wetland and migratory bird. Also, supported the lakes by providing fingerlings of local fish.</p>	<p>For next year, other lakes will be supported for local fish conservation.</p>
<p>Activity 3.7. Support local initiative for control and management of lake pollutions, and utilize water hyacinth for handicraft and compost making thereby generating income for women groups</p>	<p>After discussion with local stakeholders this action has been dropped because of least interest from community members.</p>	<p>Activity dropped.</p>
<p>Output 4. Policy framework developed for scaling up market-led approaches for agrobiodiversity management for improved livelihood outcomes</p>	<p>4.1) Feasibility study of expanding ‘unified landscape branding’ conducted in 2 lake ecosystems (Year 1 = 0; Year 2 = 0; Year 3 = 2)</p> <p>4.2) Evidence from ‘agro-ecotourism’ and ‘unified landscape branding’ generated and shared with at least 200 key local, provincial and national policy makers, researchers and other stakeholders through policy briefs, fact-sheets, video clips and travelling</p>	<p>For operationalizing and implementation of Unified Landscape Branding (ULB), a pack house is in process of establishment. The concept is made clear to the associated stakeholders like farmers, cooperatives, public and private organizations, whenever possible. Most of the activities stated in output 4 will take 3rd year report when the project will have evidences to show that ULB and BCF is a workable model worth replicating.</p> <p>The project will adopt government promoted GAP while producing quality safe food in the LCPV area.</p>

	seminars (Year 1 = 25; Year 2 = 100; Year 3 = 200) 4.3) Government endorses the guideline for 'unified landscape branding' (Year 3)		
Activity 4.1. Support multi-stakeholder working group to identify institutional mechanisms (independent clearing house) and develop operational guideline to implement ULB		Packaging House is in process of establishment and operationalization.	Packaging house will be operationalized; Regulating body formed and operational.
Activity 4.2. Produce and disseminate policy brief, fact-sheets, video and journal paper from the outcome of the piloting work of market led agrobiodiversity conservation and its integration in government policies, plans and programmes		Groundwork has been conducted for generating evidences to write these articles.	The policy brief, reports, journals and videos will be produced from the outcome of the project work in Year III.
Activity 4.3. Organize travelling seminars for the political leaders, policy makers, academicians and other stakeholders		Same as above – groundwork is done.	This activity will be done at the second half of Year III.
Activity 4.4. Liaise with Ramsar focal unit of the government and support to establish mechanism and implementation of Lake Cluster of Pokhara Valley (LCPV) plan		Collaborative work with LCDA done for Begnas Cooperative formation and to allocate fund for BCF. Liaise with Ramsar focal unit at provincial level government body.	MoU developed with Ministry of Industry, Tourism, Forest and Environment Ministry, Gandaki Province; Begnas Cooperative formed and the lakes conservation authority allocated fund for BCF
Activity 4.5. Conduct a feasibility study of 'unified landscape branding' in other 2 biodiversity rich ecosystems		Not applicable for 2 nd year.	This activity will be conducted after the establishment and functioning of ULB in LCPV area. This work will be done in Year III of the project.

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Smallholder farmers in Nepal have secured livelihoods, improved well-being, and healthy environment through the sustainable management and utilization of agrobiodiversity			
Outcome: Improved livelihoods of 3000 smallholder farmers through application of ecologically sound and scalable market-based solutions to agricultural and aquatic biodiversity management in Lake Cluster of Pokhara Valley	0.1) At least 70% increase in income of 3000 smallholder farmers (50% women-managed households) from the sale of agrobiodiversity products by end of project (Year 1 = 400; Year 2 = 1500; Year 3 = 3000) 0.2) 200 new jobs (60% women) created from the production and marketing of the local crops and species (Year 1 = 30; Year 2 = 150; Year 3 = 200) 0.3) Local government establish mechanism for supporting conservation of biodiversity through their regular plans and programmes	0.1) Baseline and end-line survey; database of individual farmer or groups. 0.2) Project records, records of chambers of commerce, progress report of metropolitan 0.3) Local government /Metropolitan annual plan and budget	0.1) Newly elected council of metropolitan continues to prioritize 'Agrobiodiversity Heritage Area' programme initiated by previous council
Output 1 Increased income and employment opportunities to smallholder farmers through the production and sale of agricultural biodiversity-based products at local and regional markets	1.1) At least 25% of the import (from outside LCPV) substitution of food items (vegetables – leafy vegetables, chillies; local rice – Jethobudho, Jhinuwa, Anadi; Coffee; foxtail millet; taro & yam; honey; citrus; mushroom; local fish – Katle, Sahar, Asala; local poultry; local goat) by 50+ restaurants, hotels and home stays (Year 1 = 0%; Year 2 = 10%; Year 3 = 25%) 1.2) Indicator Removed (explanation given in first Annual Report) 1.3) At least 3000 households increase area under, and productivity of local crops and varieties (Year 1 = 300; Year 2 = 2000; Year 3 = 3000) 1.4) At least 3000 households use 'unified landscape brand' to access regional and national markets (Year 1 = 400; Year 2 = 2000; Year 3 = 3,000),	1.1) Baseline and end-line surveys of targeted hotels, restaurants and home stays 1.3) Baseline and endline surveys; database of individual farmer or groups ; Project annual reports 1.4) Baseline and endline surveys; database of individual farmer or groups ; Pack-house sales record	1.1) Hotels and local business associations continue to cooperate in the conservation efforts 1.2) There is no unexpected high inflation affecting the procurement of project's goods and services

	with annual business of £ 400,000/year by project end		
Output 2 Increased consumers awareness and knowledge about the value of local biodiversity based food products	<p>2.1) Level of pollution and eutrophication to the lake ecosystem in LCPV watershed monitored and communicated to 30,000 users and general people through various means such as school programmes, local FM radio programmes, fairs, flyers and relevant networks (Year 1 = 5,000; Year 2 = 15,000; Year 2 = 30,000)</p> <p>2.2) 12 episodes of 'unified landscape branding' broadcasted through local FM radios for consumer awareness in local and regional markets (Year 1 = 3; Year 2 = 5; and Year 3 = 4)</p> <p>2.3) 10 schools implement conservation education and uses agrobiodiversity products produced from project communities linking with hostels/canteens</p> <p>2.4) Consumers pay at least 10% higher price for the products with 'unified landscape branding' in market place</p>	<p>2.1) Fishery Research Station lake water monitoring report; Project reports about school programmes, food fairs conducted; FM radio programmes developed and broadcast logbook; Number of publicity materials produced and distributed list; Social network likes/hits</p> <p>2.2) Number of episodes broadcasted; snapshot consumer survey reports</p> <p>2.3) Project reports; Interviews with teachers and students, and observation of school conservation education classes; purchase records of hostels and canteens; school reports</p> <p>2.4) Market outlet price monitoring and snapshot consumer survey report</p>	<p>2.1) Awareness campaigns are able to influence consumers behaviour and decision</p> <p>2.2) Agrobiodiversity products which are ULB quality-assured are readily available in local and regional markets</p>
Output 3 Local stewardship and capacity for the conservation and management of biodiversity and lake ecosystem enhanced	<p>3.1) Community managed biodiversity information centre and sale of ULB products generates GBP 10,000 per annum for the conservation fund to support biodiversity conservation and lake pollution control in LCPV (Year 1 = GBP 3,000; Year 2 = GBP 5,000; Year 3 = GBP 10,000)</p> <p>3.2) At least 100 local leaders and stakeholders (50% women) are aware about the national and international policies provisions of Ramsar, ITPGRFA, CBD and SDG and are able</p>	<p>3.1) Financial statement of Biodiversity Information Centre; Conservation fund and its mobilization records of Unified Landscape Brand management committee and user's groups; Project M&E report;</p> <p>3.2) Training and orientation, and Travelling Seminar reports; Number of dialogue and Interaction programmes organized and reported.</p> <p>3.3) LCPV management committee report and records; Project Annual Report; Baseline and end line reports</p>	<p>3.1) Project is able to secure strong buy-in for project supported interventions from local and national government bodies and policy makers</p>

	<p>to relate to their roles and responsibilities (Year 1 = 50; Year 2 = 100; Year 3 = 100)</p> <p>3.3) Designated area protected as habitat increased from 5 ha to 40 ha for native and wild agricultural, aquatic species and native/migratory bird species in LCPV area (Year 1 = 28.5 ha; Year 2 = 32 ha; Year 3 = 40 ha)</p> <p>3.4) Local government increased budget allocation and support for conservation of biodiversity by 50% from baseline figure (Year 1 = 10%; Year 2 = 30%; Year 3 = 50%)</p> <p>3.5) New Indicator: Capacity strengthening of 14 cooperatives achieved for conservation and development goals.</p>	<p>3.4) Budget statement of the metropolitan and provincial government bodies (baseline and end-line data); Government's Annual Reports.</p> <p>3.5) Need Assessment Report of the cooperatives, Business Plan of cooperatives, Capacity strengthening report.</p>	
<p>4. Policy framework developed for scaling up market-led approaches for agrobiodiversity management for improved livelihood outcomes</p>	<p>4.1) Feasibility study of expanding 'unified landscape branding' conducted in 2 lake ecosystems (Year 1 = 0; Year 2 = 0; Year 3 = 2)</p> <p>4.2) Evidence from 'agro-ecotourism' and 'unified landscape branding' generated and shared with at least 200 key local, provincial and national policy makers, researchers and other stakeholders through policy briefs, fact-sheets, video clips and travelling seminars (Year 1 = 25; Year 2 = 100; Year 3 = 200)</p> <p>4.3) Government endorses the guideline for 'unified landscape branding' (Year 3)</p>	<p>4.1) Feasibility study reports</p> <p>4.2) Published policy /research briefs, fact-sheets and distribution records; Participants attendance record in travelling seminars</p> <p>4.3) Endorsed/approved unified landscape branding guideline</p>	<p>4.1) Government policy makers, local leaders, planners and advisors learn and apply new evidences for revision of existing and/or formulation of new policies</p> <p>4.2) Project attracts additional similar initiatives in and around LCPV creating greater opportunities for programme synergies, resource leveraging, learning, influencing and achieving impacts at scale</p>
<p>Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <p>Output 1: Increased income and employment opportunities to smallholder farmers through the production and sale of agricultural and aquatic biodiversity-based products at local and regional markets</p> <p>1.1) Review, identify and, develop Good Agriculture Practice (GAP) and prepare training manual for targeted commodities</p> <p>1.2) Organize Farmer's Field Schools (FFSs) to develop and promote GAPs and build capacity of farming communities to produce safe and healthy foods</p> <p>1.3) Produce and distribute quality seeds and planting materials and establishment of multipurpose nursery to increase local access to quality planting materials</p> <p>1.4) Pilot and promote output based incentive mechanism for commercialization of agrobiodiversity products in partnership with local government</p>			

- 1.5) Establish and operationalize ULB mechanism including quality control by engaging local and provincial governments, communities and other relevant stakeholders
- 1.6) Support private entrepreneurs and cooperatives to establish a pack-house for collection, sorting, grading, packaging, labelling, and marketing of ULB certified products in local, regional and national markets

Output 2: Increased consumers awareness and knowledge about the value of local biodiversity-based food products

- 2.1) Provide training and support to local hotels, restaurants and home stays to promote local food recipes and menu
- 2.2) Conduct school programmes in LCPV areas to increase conservation awareness; engage with school hostels and canteens to promote agrobiodiversity products
- 2.3) Develop and disseminate information and communication materials (FM Radio advertisement, information boards, flyers, and social media) for general people and consumers for promoting 'unified landscape brand'
- 2.4) Organize/participate in the local food campaigns (Fairs, Street Food Festivals) and consumer awareness programme to promote agrobiodiversity base products and 'unified landscape brand'
- 2.5) Online marketing system for LCPV branded food products

Output 3: Local stewardship and capacity for the conservation and management of biodiversity and lake ecosystem enhanced that directly support for implementation of LCPV Ramsar site plan and contribute to realize ITPGRFA and SDG outcomes

- 3.1) Collaborate with local, regional and national market-outlets for increasing availability of LCPV branded products to consumers
- 3.2) Form and operationalize multi-stakeholder Project Advisory Committee (PAC)
- 3.3) Establish and strengthen Collection Centres or Biodiversity Information Centres in LCPV area for conservation awareness, and serving as outlets for selling agrobiodiversity products
- 3.4) Conduct training/workshops for local leaders and stakeholders on national and international policies provisions particularly on Ramsar convention, CBD, ITPGRFA and SDGs
- 3.5) Monitor the level of pollution (eutrophication, toxicity, sedimentation, and invasive species) in selected lakes in LCPV and utilize the findings to inform public to galvanise support for conservation efforts in Ramsar areas
- 3.6) Support lake management committees, women groups and lake cooperatives to conserve the habitat of local fish, wild rice and wetland/migratory birds
- 3.7) Support local initiative for control and management of lake pollutions, and utilize water hyacinth for handicraft and compost making thereby generating income for women groups

Output 4: Policy framework developed for scaling up market-led approaches for agrobiodiversity management for improved livelihood outcomes

- 4.1) Support multi-stakeholder working group to identify institutional mechanisms (independent clearing house) and develop operational guideline to implement ULB
- 4.2) Produce and disseminate policy brief, fact-sheets, video and journal paper from the outcome of the piloting work of market led agrobiodiversity conservation and its integration in government policies, plans and programmes
- 4.3) Organize travelling seminars for the political leaders, policy makers, academicians and other stakeholders
- 4.4) Liaise with Ramsar focal unit of the government and support to establish mechanism and implementation of Lake Cluster of Pokhara Valley (LCPV) plan
- 4.5) Conduct a feasibility study of 'unified landscape branding' in other 2 biodiversity rich ecosystems
- 4.6) Organize result sharing and lesson learnt workshop

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	On the Job Training (OJT) provide to 3 students for 6 months coming from Agriculture Institute as a part of their curriculum	Female-2, Male-1	Nepalese	█	█		█	
23	Funding raised from other source different organizations -Community Cooperative -Pokhara Metropolitan City -Farmers (Bee Keeping) -SeedChange			£ █	█		█	█

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
1. Training Manual on Good Aquaculture Practices (GAqP) of Fish production with special focus on Lake Cluster of Pokhara Valley (LCPV)	Manual	Md. Akbal Husen, 2020	Male	Nepalese		http://libird.org/app/publication/view.aspx?record_id=433
2. Hand book on available useful methods/practices of plant protection for organic farming systems (In Nepali Language)	Hand book	Niranjani Pudasaini, Sagar GC, Indra Paudel, Tejaswee Shiwakoti and Anita Gautam, 2021	Male-3 and Female-2	Nepalese		http://libird.org/app/publication/view.aspx?record_id=432

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	No
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	