



Value Chain Development of Fruits and Vegetables Project in Nepal (VCDP)

Final Evaluation Report

Time-frame of the Evaluation: July 2018-December 2022

Submitted by:

PRISM CONSULTS I. L. (P) LTD.
7/29 ChakubakuGali , New Baneswor - 10, Kathmandu, Nepal
GPO Box 8975 EPC 1783, Kathmandu, Nepal
Phone: 977-1- 4797014, Fax: 977-1- 4797014
Email: prismcil@gmail.com

Commissioned by:

United Nations Development Programme
UN House, Pulchowk, Lalitpur
GPO Box 107, Kathmandu, Nepal
Tel: +977 15523200 Ext xxxx
Fax: +977 15523991, 15523986

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Project and Evaluation Information Detail

Project Title	Value Chain Development of Fruits and Vegetables in Nepal.	
Atlas ID	00088895	
Corporate outcome and output	UNDAF/CPD Outcome Outcome 1: By 2022, impoverished, especially economically vulnerable, unemployed and under-employed and vulnerable people, have increased access to sustainable livelihoods, safe and decent employment and income opportunities. UNDAF/CPD Output Output 1.1: Policy, institutional and capacity development solutions lead to improved disaster and climate resilient livelihoods, productive employment and increased productivity in rural areas.	
Country	Nepal	
Region	Asia Pacific	
Date project document signed	29 June 2018	
Project dates	Start	Planned end
	29 June 2018	31 December 2022
Total committed budget	\$5.5m	
Project expenditure at the time of evaluation	\$ 5.26m (as of 15 December 2022)	
Funding source	KOICA: \$5m; UNDP: \$0.5m	
Implementing party	Ministry of Agriculture and Livestock Development	
Evaluation information		
Evaluation type	Project	
Final/midterm/ other	Final	
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	July 2018	December 2022
Evaluation by	PRISMCONSULT I.S P (Ltd.)	
Evaluators	Mr. Janaki Prasad Khanal, (Team Leader) Dr. Bishnu Datta Awasthi, Agriculture Economist Mr. Durga Prasad Pandit, Horticultural Expert Ms. Sawar Basnet Thapa, GESI Expert Mr. Sugam Bajracharya, Data Analyst	
Evaluator email address	Mr. Janaki Prasad Khanal, (Team Leader) : janaki.khanal@gmail.com Dr. Bishnu Datta Awasthi, Agriculture Economist: awasthibd@gmail.com Mr. Durga Prasad Pandit, Horticultural Expert: pandit.durga2011@gmail.com Ms. Sawar Basnet Thapa, GESI Expert: sawarbt@gmail.com Mr. Sugam Bajracharya, Data Analyst: sugam.bajracharya@yahoo.com	
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List of acronyms and abbreviations

AKC	Agriculture Knowledge Centre
ADS	Agriculture Development Strategy
APP	Agriculture Perspective Plan
BCT	Brahmin Chhetri Thakuri
EQ	Evaluation Question
C19	COVID-19
CMDP	Cooperative Market Development Program
FGD	Focus Group Discussion
HH	Household
JTA	Junior Technical Assistant
KII	Key Informant Interview
KOICA	Korea International Cooperation Agency
MoALD	Ministry of Agriculture and Livestock Development
MTE	Mid-term Evaluation
NARC	Nepal Agricultural Research Council
NDRI	Nepal Development Research Institute
NIM	NATIONAL Implementation Modality
NPC	National Planning Commission
OECD-DAC	Organization for Economic Co-operation and development -Development Assistance Committee
PMAMP	Prime Minister Agriculture Modernization Project
SDG	Sustainable Development Goal
ToC	Theory of Change
ToR	Terms of Reference
UNDP	United Nations Development Programme
USD	United States Dollar
VCDP	Value chain Development of Fruits and Vegetables in Nepal Project

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Executive summary

This evaluation report is prepared for United Nations Development Programme (UNDP) in Nepal. The report presents the results of the Final Evaluation of the Value Chain Development of Fruit and Vegetables in Nepal Project (VCDP) jointly implemented by The Ministry of Agriculture and Livestock Development (MOALD) with support from Korea International Cooperation Agency (KOICA) and United Nations Development Programme (UNDP). The project aimed to increase incomes of smallholder farmers by a) increasing selected crop production and productivity through capacity development of the government agencies and better access to production technology by farmers; b) reducing post-harvest losses through developing post-harvest technology; and c) enhancing better market linkages in local level through strengthening collaborating collection centres and satellite markets. The project is implemented in three road corridors; BP Highway, Prithvi Highway and a part of the East-West Highway (Hetauda-Dumkibas) targeting vegetables- tomato, cauliflower, cabbage, capsicum, cucumber, radish, potato, onion, garlic and fruits- banana, citrus, papaya, pineapple, and watermelon.

The overall objective of the final evaluation was to assess the results achieved and lesson learnt by the project during its implementation. In line with the TOR, the evaluation assessed whether the achieved results of the project within the project period are achieved towards contributing in strengthening the value chains and increasing incomes of smallholder farmers in the project areas. The evaluation identified and documented the achievement of the project interventions, challenges, lessons learnt and assessed the progress against the baseline data.

The evaluation adopted a mixed approach combining both quantitative and qualitative techniques. It followed the revised OECD-DAC evaluation criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability to assess the project interventions. Partnership, GESI and Human Rights were analysed as the cross-cutting criteria. The data and information were collected using both quantitative and qualitative techniques. In the initial phase of evaluation, desk study of all the documents pertinent to the project including project document, project progress reports, baseline study report, midterm evaluation report, quarterly and annual progress reports, progress against output and other result indicators were thoroughly reviewed. Quantitative technique included household survey, analysis of project database. Qualitative technique includes Key Informant Interviews (KII), Focus Group Discussion (FGD), field observation and document review. In total, 415 farmers (260 women) were interviewed via household survey, 33 Key Informant Interviews and 19 FGDs were conducted along with review of existing project documents as well as other relevant literatures to answer the evaluation questions. Four informal observations (one each in cooperative, Palika, farmers group and market centre) were carried out. UNDP Nepal Country Office, KOICA and implementing partner Ministry of Agriculture and Livestock Development (MoALD) are the primary audiences of this evaluation report.

Key findings

Relevance: The overall design and approach of the project was found relevant as the project put smallholder farmers producing fruits and vegetables and associated value chain actors at central. The project has a differentiated impact on women and other vulnerable groups as the project was able to reach 18,420 beneficiaries (58% women and 57% from ethnic communities) and address the needs and priorities of the target groups supporting women and marginalized groups. The project well contributed to the national policies such as National Agricultural Policy and Agricultural Development Strategy, where as partial contribution to UNDP country program document. The output level results were achieved satisfactorily and contributed significantly to the project outcomes. The reprogrammed project activities during COVID-19 pandemic through provision of relief and addressing needs of migrant returnees who lost their jobs abroad was highly relevant in meeting the local needs during COVID-19 pandemic

Coherence: The intervention sufficiently fits in a changed context. The project is highly coherent with internal as well as external interventions in similar context. The intervention is highly coherent with government policies. For instance, the intervention is in line with the “Game Changer” projects of Nepal such as Prime Minister Agriculture Modernization Project which aims to enhance competitiveness and to ensure food and nutrition security by industrializing the sector to create sustainable economic opportunities and to be self-reliant in agricultural production. Similarly, the VCDP strategy is coherent with the “pocket approach” of APP and ADS that aims for specialization and commercialization. The intervention very well addresses the synergies and interlinkage with other interventions like Cooperative Market Development Program (CMDP) carried out by UNDP and the government of Nepal.

Effectiveness: Despite of the constraints faced during pandemic, the overall VCDP intervention and all project activities were found delivered effectively on time. The project has been significantly effective in enhancing the capacity of local partners (37 local governments), agriculture technicians (193), farmers (11,000), cooperative officers (537) and the institutions to create an enabling environment for value chain development and in creating employment and income opportunities to the local people including women and marginalized groups through provision of technical trainings, extension on postharvest technology and research activities. Similarly, the capacity of NARC has been strengthened through engagement in postharvest technology related research activities, and extension on postharvest technology has been provided to farmers and cooperatives. The project has developed 34 publications in the form of manuals and knowledge products through consultation with local governments, cooperatives and farmers, and determined the best way to disseminate knowledge and technology. The overall monitoring system was found effective to capture the progress and results. The inclusion of women and deprived groups in different interventions was effective in bringing the expected outcomes.

Efficiency: The project has efficiently used resources including human, materials and finance to achieve the results in a timely manner. The direct fund flow mechanism was appropriate and efficient. The project management structure was quite appropriate and efficient in generating the expected results because the involvement of local government as implementing partner allowed for internalization of the project intervention. Staff of the project management were found working efficiently. The project implementation strategy and its execution were found effective in generating the expected results even in the context of COVID-19 pandemic.

Sustainability: The partnership with local government and the local cooperatives for implementing the project interventions resulted in significant contribution to sustainability of the intervention even after completion of the project. VCDP was implemented through national implementation modality (NIM). The project has strengthened capacities of different stakeholders at the individual and organizational level. It has strengthened the capacities of Palika who are to take over the project. Also, the project's intervention in post-harvest technologies, strengthened laboratory, cold rooms are useful for farmers and traders to reduce post-harvest losses in fruits and vegetables. Palikas have internalized and adopted the modality of VCDP in allocation of budget for agriculture activities in their programs to support smallholder farmers. Ownership by local government and the cooperatives, use of postharvest technology, strengthening of institutional capacity of Palika and individual's capacity building of farmers are likely to be sustained.

Impact: The project results are likely to be sustained and are in line with generating significant impact at small holder farmers. After the implementation of the project, productivity has been increased by 21.3%, sale of commodities has been increased by 30.1% increase in comparison to baseline. The program highly contributed to resilient and inclusive economic recovery. The technical, financial, input and infrastructure support provided by the project enabled citizen's trust in local government. The partnership with different organizations has significant positive impact on project achievement. With the adoption of GESI and human rights-based approach in the design and implementation of the project, the efforts have been made to benefit women and people from marginalized groups. The activities of project were more focused in developing strategies, strengthening government capacity through establishment of collection centre, marketplace, and laboratories.

Partnership: The government organizations, academic institutions and local organizations which were supposed to be partnered are equally involved in completion of activities of project. Local government/Palikas as implementation partner, academic institutions as research and result findings partners, cooperative as activities promoting and implementation partner for infrastructure development like collection center, market place, NARC as research and disseminating partner, and KOICA and UNDP as decision making body for project implementation were working effectively from their sides. This project has provided an avenue to strengthen the linkages between UNDP Nepal and KOICA Nepal. The partnership with local government, cooperatives, and farmers' group have created synergies and contributed positively to project's achievements.

Cross-cutting issues: VCDP has addressed the needs of women and socially disadvantaged groups and ensured gender and social inclusion in all aspects of project intervention. The project has integrated human right based approaches in the design, implementation and monitoring of the project intervention. The project has prioritized participation of women, Dalits and janajatis in all aspects of project activities. Benefits were equally shared irrespective of caste, gender and ethnicity. The entire activities conducted through NARC, Universities, Palikas and Cooperatives under VCDP ensured the participation of women and ethnic groups as far as possible. Disaggregated data were found to be collected specifically in the case of participation in training, access to support and grant by the all implementing partners.

Recommendations

Some of the key recommendations for future projects of this nature are:

- (i) However, more beneficiaries were reached through the project, the intervention was found bit scattered to bring the visible impact. With the available resources, few pockets should be intensively developed as model pocket to produce snowball effect on the neighboring community.
- (ii) Dedicated program for vulnerable groups (women, Dalits and marginalized) should be designed and implemented rather than ensuring their participation and inclusion. Approaches such as couples training, flexible venue and timing of training for women, involvement of both men and women in all the value chain development work, development of market linkages of women shall be adopted to increase women's involvement in every phase of the project and engaging them in each step of the agriculture value chain.
- (iii) Post-harvest training should be provided not only to the farmers but also to market level stakeholders such as traders who buy fruits from orchard, transporters who carry fruits and vegetables from farm gate to collection centers or wholesale market and fruits and vegetable store operators.
- (iv) With the global emergence of e-commerce practices and our own lessons from program implementation during COVID-19, marketing of fruits and vegetables should adopt e-commerce modality and train the market actors on the e-commerce.

1. Introduction

The Value Chain Development of Fruit and Vegetables in Nepal Project (VCDP) was implemented by The Ministry of Agriculture and Livestock Development (MOALD) with support from Korea International Cooperation Agency (KOICA) and United Nations Development Programme (UNDP). This project focuses on increasing productivity, reducing post-harvest losses and improving the marketing system for selected fruits and vegetables in Bagmati Province and Gandaki province. The project is part of UNDP's overall strategy to support the MoALD, provincial governments, and local governments to strengthen the agricultural value chain with a focus on income generation of smallholder farmers. The project was implemented from June 2018 and ending at the end of December 2022. Therefore, the final evaluation was commissioned by UNDP Nepal to assess the results and approaches of the project interventions. The main purpose of this evaluation is to assess the results and approaches of the project interventions. The evaluation aimed to assess the relevance, effectiveness, coherence, efficiency, impact and sustainability of the project interventions.

Furthermore, some key events such as implementation of the new constitution, federalization of the country, localization of sustainable development goals and more importantly COVID 19 have taken place since the beginning of the project. These events brought challenges in implementation as well as achieving the project targets. UNDP, KOICA and the implementing partner - MoALD are the primary audiences of this evaluation. They will use the evaluation findings to assess the results achieved and lesson learnt by the project during its implementation. The evaluation has followed Organization of Economic Cooperation Development (OECD) Development Assistance Committee (DAC)'s evaluation criteria – relevance, coherence, effectiveness, efficiency, impact and sustainability. Partnership, Gender Empowerment and Social Inclusion (GESI) and human rights are added as cross cutting criteria. In line with this, the report follows the following outline:

Section 1 introduces in brief about final evaluation,

Section 2 describes about the project/intervention,

Section 3 describes evaluation scope and objectives,

Section 4 describes evaluation approach, sampling, methodology and limitation

Section 5 presents analysis method,

Section 6 describes findings,

Section 7 draws the conclusion,

Section 8 provide key recommendations and

Section 9 documents the key lessons learned.

2. Description of the intervention

2.1 The Project

Nepal's agriculture shows weak growth rates with low productivity and competitiveness, and limited adoption of improved technology. On the other hand, postharvest losses of vegetables and fruits is high in Nepal. Various studies have conducted to determine the post-harvest loss of fruits and vegetables, which estimated the post-harvest loss from 20 to 30% for fresh fruits and vegetables and could exceed 50% under adverse conditions with rates slightly higher for fruit than for vegetables. Major reasons for losses in fruits and vegetables are caused by harvesting at an improper stage of maturity, direct packing and shipping without removal of field heat, improper methods of harvesting, transportation and storage (Gautam et al, 2018). This leads to lower returns through revenues foregone, as well as higher costs of transportation and marketing. The majority of loss occur during transportation from the farm yard to the collection center and thereafter to the wholesale market and retail outlets. Effects of post-harvest loss are felt both by traders and farmers. In addition, postharvest losses affect overall food security and nutrition. Some estimates suggest that, even in high income countries with efficient postharvest management, over 30% of the food produced is not consumed. Technology interventions along with technical and financial assistance play a critical role in addressing the issue of post-harvest loss. Despite of several efforts that have been made to develop and disseminate these technologies for smallholder farmers, these technologies have not been reach out yet to those farmers who really in need. Nepal's fruit and vegetable markets are not much well-developed. Markets are congested and unhygienic with many issues and concerns such as presence of many intermediaries resulting in high cost of products, lack of proper market-led infrastructure for management of goods, lack of availability of market information etc.¹

In this context, the Value Chain Development of Fruit and Vegetables in Nepal Project (VCDP) is led by the Ministry of Agriculture and Livestock Development (MoALD) with support of UNDP and the Korea International Cooperation Agency (KOICA). The project is part of UNDP's overall strategy to support the MoALD, provincial governments and local governments to strengthen the agricultural value chain with a focus on income generation of smallholder farmers. The MoALD, The Nepal Agricultural Research Council (NARC), local governments, cooperatives, market operators, farmers,

agrovets, service providers and other actors along the value chain are the key implementing partners for the project. The project aimed to increase incomes of 10,000 smallholder farmers of 37 rural/municipalities aside BP Highway and Prithvi Highway extending to Syangja and Hetauda-Dumkibas section of the East-West Highway in Bagmati and Gandaki provinces through improved vegetables and fruits farming in Nepal.



Figure 1: Map of Project Districts

The project has intervened 115 pocket areas about 18,420 farmers, 21 cooperatives and 42 market centers from 37 Palikas of 11 districts for technical assistance. Recognizing the key gaps in the vegetables and fruits farming, the project has focused on production support with enhanced access to extension, postharvest loss management, and market linkage improvement. The project supported cooperatives and farmers' group better access to production technology as well as improved crop production practices and access to finance to farmers through Palika and cooperatives. Similarly,

¹ ADB (2019). Dysfunctional Horticulture Value Chains and the Need for Modern Marketing Infrastructure: The Case of Nepal. Accessed at <https://www.adb.org/sites/default/files/publication/534711/dysfunctional-horticulture-value-chains-nepal.pdf>

the project supported market access by establishing and strengthening necessary physical infrastructures such as collection centres, satellite market, procuring mini-trucks, and establishing low-cost cold rooms (both CoolBot based and refrigeration system based). Furthermore, the project has supported in updating laboratory along with necessary equipment to NARC to perform research and develop different post-harvest loss minimization technologies for farmers. The project has also supported in development of post-harvest technologies and rolled-out in collaboration with NARC in order to reduce the scale of post-harvest losses. Similarly, the project has supported to physical facilities, organizational management, and access to market price information to collection centres and satellite markets to enhance market linkages. The targeted commodities for the project were vegetables-tomato, cauliflower, cabbage, capsicum, cucumber, radish, potato, onion, garlic, carrot and fruits- banana, citrus (mandarin, sweet orange and lime), papaya, pineapple, and watermelon.

The three key project outcome results and their indicators are:

Project outcome 1	<p>Improve agricultural productivity through increased capacity of government agencies and better access to production technology by farmers</p> <ul style="list-style-type: none"> • % Increase in gross margin of selected commodities by collaborating farmers (Target 15% against baseline data) • % Increase in average yield of crops by collaborating farmers (Target 20% against baseline data).
Project outcome 2	<p>Reduce postharvest losses of selected fruit and vegetables by postharvest technology development</p> <ul style="list-style-type: none"> • % Decrease in postharvest losses occurring from farm to collection center and wholesale markets by volume (baseline vegetables 20.7%, fruit 26.3% collected in 2019 target 5% reduction)
Project outcome 3	<p>Better market linkage at local level.</p> <ul style="list-style-type: none"> • % Increase in the volume of selected commodities traded at collaborating collection centers and satellite markets (baseline 2,747 MT collected in 2019 target 40% increase).

2.2 VCDP Theory of Change

The main objective of the project was to improve crop productivity and increased incomes for farmers. The pathway to change are production support enhanced, postharvest loss reduced and market linkage improved which is done through provision of input support, extension services support, development of postharvest technology, rehabilitation of collection centres and wholesale market and promotion of market information network system. Initially, for production support enhancement, increase access to finance was planned through provision of revolving fund for input support however the modality was changed to provision of input support in the revised Theory of Change (Annex 13).

2.3 Implementation modality

The VCDP project was launched on June 29, 2018 . The project period was June 2018 – 31 December 2022. At federal level, the project is led by the MoALD according to National Implementation Modality, as agreed between Government of Nepal (GoN) and UNDP. Department of Agriculture, NARC, and local level government bodies are the cooperating agencies in the new federal structure. NARC is also a co-implementing agency at the federal level and local government bodies are the main implementing partners at local level. Other local partners of the project include input suppliers, cooperatives, lead farmers and local commodity market owners.

3. Evaluation Scope and Objective

UNDP has commissioned this final evaluation process to assess the results and approaches of the project interventions. The evaluation serves as an important function to identify and document the achievements of the project interventions, challenges, lessons learnt and best practices.

3.1 Evaluation Scope

The final evaluation of the project was carried out for the period from June 2018 to December 2022. The evaluation covered 11 districts considering three selected road corridors BP- Highway corridor, Extended Prithvi Highway corridor and East west highway corridor of Bagmati Province and Gandaki province. They covered three districts in BP Highway (Kavre, Ramechhap and Sindhuli), five districts in extended Prithvi Highway (Dhading, Tanahu, Gorkha, Kaski and Syangja) and three districts in East-west Highway (Chitwan, Makawanpur and Nawalparasi East).

The total number of municipalities covered by the evaluation were 16 (Annex 9). The evaluation focussed on Palikas (local governments), Cooperatives and farmers groups, Market centers in the sample municipalities. The scope of evaluation also included Horticulture Research Centre and postharvest research unit of NAARC, AFU, IAAS, HICAST, AITC having activities supported by VCDP.

3.2 Evaluation Objectives

The overall objective of the final evaluation was to assess the results achieved and lesson learnt by the project during its implementation. The specific objectives of the evaluation were as per ToR (Annex 1).

- Assess the implementation approaches, results against its outcome and outputs targets, contributing to higher level results
- Assess the effectiveness of the project activities provided to smallholder farmers and local partners such as local governments, cooperatives, and local service providers in increasing incomes and strengthening the horticulture value chains
- Assess engagement of local partners such as local government, NARC, cooperatives, agribusiness organizations and other actors along the value chains
- Identify challenges encountered and document the lessons learnt and good practices to be replicated in future programming
- Assess to what extent the project has addressed gender considerations and promoted gender equality and social inclusion through its implementation
- Review and assess the risks and opportunities (in terms of resource mobilization, synergy and areas of interventions) directly linked to the Project
- Provide forward looking recommendations for the sustainability of the project results and its potential scalability in the current context of COVID-19 crisis and socio-economic response efforts.

3.3 Evaluation Criteria and Questions

The study followed the revised OECD-DAC evaluation criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability. In line with the TOR, the evaluation assessed whether the achieved results of the project within the project period contributing to strengthening the value chains and increasing incomes of smallholder farmers in the project areas. Furthermore, as the project addresses in its document, evaluation questions related to collaboration among stakeholders and mainstreaming of cross cutting issues i.e. Gender Equality and Social Inclusion (GESI) and human rights were also included as cross- cutting criteria in table below. Thus, apart from OECD-DAC six point criteria the project was evaluated using additional three criteria making total criteria nine.

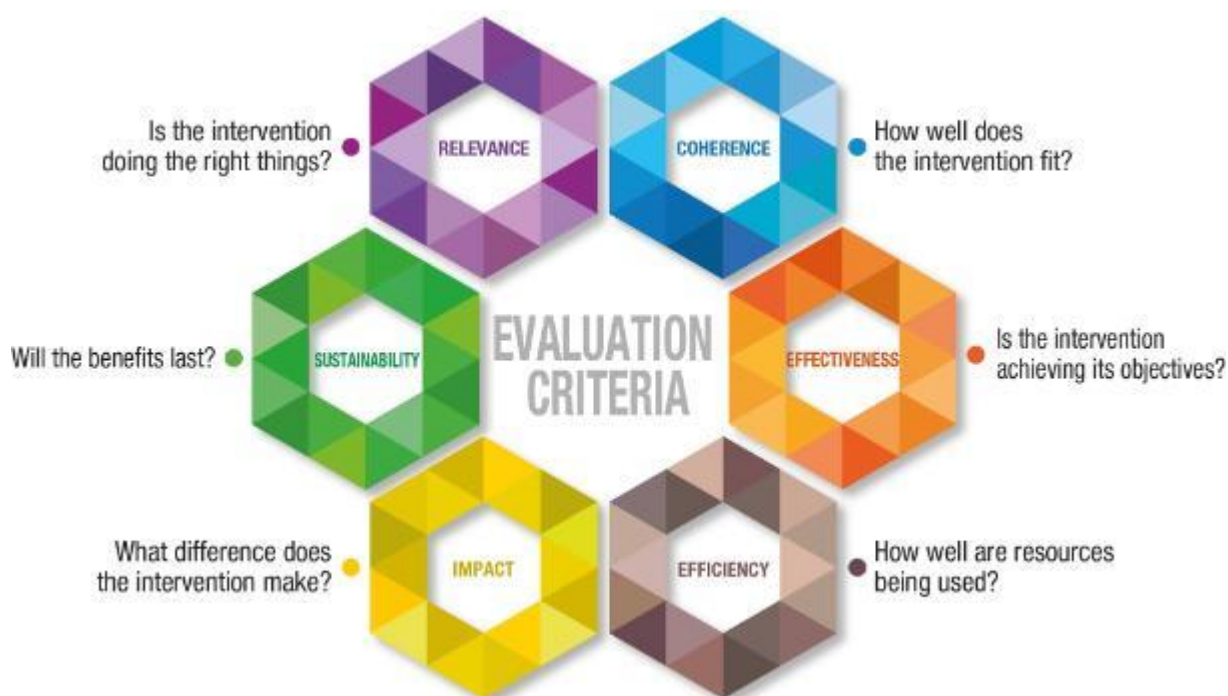


Figure 2: Evaluation Criteria

Table 1: Evaluation criteria and respective questions:

Criteria	Evaluation questions
Relevance	<ul style="list-style-type: none"> • How relevant were the overall design and approaches of the project? • To what extent the project was able to address the needs and priorities of the target groups and communities in the crisis context and changing conditions? • Had the results achieved a differentiated impact on women and other vulnerable groups? • To what extent did the project contribute to the national policies and strategies such as the Agriculture Development Strategy? • To what extent were the output level results achieved and how did the project contribute to project outcomes? Does the project contribute to the outcome and output of the UNDP Country Programme Document? Were there any unintended positive or negative results? • To what extent the reprogramming of project activities for immediate COVID-19 response are relevant to meet the local needs?
Coherence	<ul style="list-style-type: none"> • How well the intervention fits in a changed context? • To what extent the intervention is coherence with Government's policies • To what extent the intervention addressed the synergies and interlinkages with other interventions carried out by UNDP or Government of Nepal? (Internal coherence) • To what extent the intervention was consistent with other actor's interventions in the same context or adding value to avoid duplication of the efforts? (External coherence).
Effectiveness	<ul style="list-style-type: none"> • To what extent the project activities were delivered effectively in terms of quality, quantity and timing? • What are the key internal and external factors (success & failure factors) that have contributed, affected, or impeded the achievements, and how the project and the partner have managed these factors? • To what extent have monitoring arrangements been effective and

	<p>supported adaptive management? What were the lessons and how was feedback/learning incorporated in the subsequent process of planning and implementation?</p> <ul style="list-style-type: none"> • How effective has the project been in enhancing the capacity of local partners to create an enabling environment for value chain development? • To what extent did the project contribute to the UNDP Country Programme Document outcome and outputs, the SDGs, the UNDP Strategic Plan and national development priorities such as Agriculture Development Strategy? • To what extent was the project successful in creating employment and income opportunities to the local people? • How effective was the project in ensuring that concerns around GESI were integrated in its approach?
Efficiency	<ul style="list-style-type: none"> • How efficiently were the resources including human, material and financial resources used to achieve the results in a timely manner? • To what extent the fund flow mechanism (Letter of Agreement, Low Value Grant or Value Chain Grant) has been an appropriate and efficient mechanism to leverage the resources of the community? • To what extent was the existing project management structure appropriate and efficient in generating the expected results? • To what extent has the project implementation strategy and its execution been efficient and cost- effective?
Sustainability	<ul style="list-style-type: none"> • To what extent are the benefits of the projects likely to be sustained after the completion of this project? • What are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach? • How were capacities strengthened at the individual and organizational level (including contributing factors and constraints)? • What could be done to strengthen exit strategies and sustainability of the project?
Impact	<ul style="list-style-type: none"> • To what extent the project outputs were achieved and contributed to outcome level results? • To what extent can the program contribute to resilient and inclusive economic recovery through support to production, postharvest loss management, and market linkage? • To what extent has the support enabled citizen's trust in local government and its systems, particularly those of women?
Partnership	<ul style="list-style-type: none"> • How the partnerships affected the project achievement, and how might this be built upon in the future? • Have the ways of working with the partner and the support to the partner been effective and did they contribute to the project's achievements? • How does partnership with local partners including Palikas, cooperatives, farmers' association and other actors along the value chain? Does it create synergies or difficulties? What type of partnership building mechanism is necessary for future partnership?
Gender equality and Social Inclusion	<ul style="list-style-type: none"> • To what extent have issues of gender and marginalized groups been addressed in the design, implementation and monitoring of the project? • To what extent the project approach was effective in promoting gender equality and social inclusion - particularly focusing on women and socially disadvantaged groups? • To what extent has the project promoted positive changes for women and marginalized groups? Were there any unintended effects?

Human rights

- To what extent have Dalit, ethnic minorities, women and other disadvantaged and marginalized groups benefitted from the work of the project and with what impact?
- To what extent have projects integrated Human Rights based approaches in the design, implementation and monitoring of the project? Have the resources been used in an efficient way to address Human Rights in the implementation (e.g. participation of targeted stakeholders, collection of disaggregated data, etc.)?

4. Evaluation approach and methods

4.1 Evaluation approach

The final evaluation was undertaken using a mixed approach combining quantitative and qualitative techniques. In the initial phase of evaluation, desk review of all the documents pertinent to the project including project document, project progress reports, baseline study report, midterm evaluation report, quarterly and annual progress reports, progress against output and other result indicators were thoroughly reviewed. A household survey was also conducted with the beneficiaries of sampled households (HHs) from the project areas. The qualitative techniques included mainly Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), informal discussions/meetings and informal observations. The target respondents for KIIs were key stakeholders comprising of local ward/municipality leaders, cooperative heads, focal person of agriculture division of municipality, local level government chiefs and so on. Similarly, the target respondents for FGDs were members of farmers groups, agriculture cooperatives, traders and other value chain actors. Observations were done basically at institution level such as main market centers and agriculture cooperatives. Several consultations with members of collection centers, cooperative members, farmers and relevant stakeholders were carried out at district as well as national level.

4.2 Data sources

The data sources were;

- Published and unpublished documents-policy documents, program documents and reference materials related to the study
- Group of stakeholders and beneficiaries- Women groups, cooperatives, market centers.
- 19 FGDs (153 people: F-104;M-49) – Annex 11
- 33 Key informant interviews - Annex 12
- Sample survey (415 respondents: F- 260; M-155)

4.3 Sample and sampling frame

Sampling of respondents:

Representative sample size was determined using the following formula. Population size was considered 12,596 farmer households which was the progress as of July 2022.

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 + p(1-p)}{e^2 N}\right)}$$

Where,

“z” is the z score (1.96 for 95% confidence level)

“e” is the margin of error (5%)

“N” is the population size (12,596 farmers)

“P” is the population proportion (50%)

After calculation of the sample size, the household survey followed the multi-stage random sampling method to ensure better representation of different characteristics of the respondents. As the first stage, 16 municipalities were selected using convenient sampling covering all 11 districts in three road corridors making sure at least one municipality was included in a district and by focussing to main commodities and project intervention. A list of beneficiaries' households prepared for each sampled municipality which served as the sampling frame. Sample size for each municipality was calculated based on the PPS (Proportion to population size) and each respondent was selected randomly from the sampling framework of each sampled municipality.

Additional 10 percent sample (38 HHs) was added in the total HH sample for considering non-response scenario in the field (Table 2).

The details of selected number of HH is shown in Table 2.

Table 2: Sample size for HH survey

District	Municipality	Major Commodities/ intervention	Benefi ciaries	% of Beneficiaries	Sample in MP	Non Response Sample in MP
Chitwan	Bharatpur	carrot	789	9.48	36	3
	Ratnanagar	banana cabbage cauliflower lemon	142	1.71	7	1
	Khairahani	cabbage, cauliflower, capsicum	529	6.36	24	2
Dhading	Dhunibeshi	cabbage, cauliflower, tomato, onion	161	1.94	8	1
Gorkha	Sahid Lakhan	orange, cauli flower, cabbage tomato, cucumber	184	2.21	8	1
Kavre	Banepa	radish tomato potato	1,719	20.66	80	8
Makawanpu r	Hetauda	potato cooperative	1,071	12.87	48	4
Nawalparasi (East)	Devchuli	vegetables	352	4.23	16	2
Ramechhap	Khandadevi	vegetables, water melon	156	1.88	8	1
Sindhuli	Kamalamai	pineapple, potato, tomato return migrant	97	1.17	4	1
	Sunkoshi	return migrant, onion, garlic, potato, tomato, cauliflower, cabbage	796	9.57	36	3
	Golanjor	mandarin, sweat orange	119	1.43	6	1
Syangja	Phedikhola	vegetables, return migrant	558	6.71	26	2
	Putalibazaar	Mandarin, vegetables	325	3.91	15	2
Tanahun	Aanbukhaire ni	common vegetables	656	7.88	30	3
Kaski	Pokhara	Input Subside	666	8.00	32	3
Total			8,320	100.00	384	38

4.4 Data collection procedure and instruments

30 supervisors and enumerators (73% female) were trained and mobilized to collect data from field. They were trained intensively on the objectives, methods and procedures of the survey to ensure the quality of the data collection. Survey questionnaire and tools were pretested and refined before actual administration.

The survey team collected quantitative data from household survey and qualitative data through focus group discussions (FGD), key informant interview (KIIs) and informal observations. The FGDs and KIIs were particularly focused for the triangulation of the responses from farmers and government officials, cooperative staffs etc. Semi-structured questionnaires and checklists (Annex 3) for HH survey and qualitative data collection were administered respectively. The household questionnaire consisted of mostly closed-answer questions and a few open-ended questions were administered to collect data/information. Household survey was carried out with the help of solstice software app. A total of 33 KIIs and 19 FGDs (153 people) conducted are summarized in Table 3.

Table 3: Data Collection methods

Data type	Data collection techniques	Sample size
Quantitative	Household Questionnaire Survey	415 Farmers (260 Female and 155 Male)
Qualitative	Focus Group Discussion	19
	Key Informant Interview	33
	Observations	Collection centers, Market centers, NARC, Cooperatives

Similarly, secondary data and information was collected from different published and unpublished sources including VCDP annual reports, booklets, bulletins and annual reports of agriculture cooperatives, main market centers' documents, MoALD and other relevant past studies to generate the required information that had focused on production, productivity, post-harvest loss, processing, and improve the marketing system of selected fruits and vegetables.

4.5 Performance standards

The final evaluation of VCDP was carried out based on the evaluation criteria of OECD-DAC and the guiding questions outlined for each criterion. The performance standard followed in this evaluation is presented below:

Criteria	Evaluation questions	Performance standards/Data source
Relevance	<ul style="list-style-type: none"> How relevant were the overall design and approaches of the project? To what extent the project was able to address the needs and priorities of the target groups and communities in the crisis context and changing conditions? Had the results achieved a differentiated impact on women and other vulnerable groups? To what extent did the project contribute to the national policies and strategies such as the Agriculture Development Strategy? To what extent were the output level results achieved and how did the project contribute to project outcomes? Does the project contribute to the outcome and output of the UNDP Country Programme Document? Were there any unintended positive or negative results? To what extent the reprogramming of project activities for immediate COVID-19 response are relevant to meet the local needs? 	<ul style="list-style-type: none"> Project Design report examined by the evaluator, KII Review of Project Progress Report, HH Survey, FGD Analysis of achievement, FGD, HH survey Analysis of project contribution towards National Agriculture Policy and Agriculture Development Strategy Project Progress Report, examining project output contribution on project outcome. Review of UNDP country program document. HH survey, FGD, KII
Coherence	<ul style="list-style-type: none"> How well the intervention fits in a changed context? To what extent the intervention is coherence with Government's policies To what extent the intervention addressed the synergies and interlinkages with other interventions carried out by UNDP or Government of Nepal? (Internal coherence) To what extent the intervention was consistent with other actor's interventions in the same context or adding value to avoid duplication of the efforts? (External coherence). 	<ul style="list-style-type: none"> Examining the fitness of intervention in socio-political and environmental context Review of related policies of GoN Review of related UN projects and GoN projects Review of other projects running with similar purpose in the same area.
Effectiveness	<ul style="list-style-type: none"> To what extent the project activities were delivered effectively in terms of quality, quantity and timing? What are the key internal and external factors (success & failure factors) that have contributed, affected, or impeded the achievements, and how the project and the partner have managed these factors? To what extent have monitoring arrangements been 	<ul style="list-style-type: none"> Project progress report. Judgement of quality and timing. KII and Evaluators' judgement Monitoring reports of the project Training reports of the project

	<p>effective and supported adaptive management? What were the lessons and how was feedback/learning incorporated in the subsequent process of planning and implementation?</p> <ul style="list-style-type: none"> • How effective has the project been in enhancing the capacity of local partners to create an enabling environment for value chain development? • To what extent did the project contribute to the UNDP Country Programme Document outcome and outputs, the SDGs, the UNDP Strategic Plan and national development priorities such as Agriculture Development Strategy? • To what extent was the project successful in creating employment and income opportunities to the local people? • How effective was the project in ensuring that concerns around GESI were integrated in its approach? 	<ul style="list-style-type: none"> • Review of UNDP country program document, SDG and UNDP strategic plan and national development priorities. • FGD, HH survey • FGD, KII
Efficiency	<ul style="list-style-type: none"> • How efficiently were the resources including human, material and financial resources used to achieve the results in a timely manner? • To what extent the fund flow mechanism (Letter of Agreement, Low Value Grant or Value Chain Grant) has been an appropriate and efficient mechanism to leverage the resources of the community? • To what extent was the existing project management structure appropriate and efficient in generating the expected results? • To what extent has the project implementation strategy and its execution been efficient and cost- effective? 	<ul style="list-style-type: none"> • Project Progress report • FGD. Progress report • Review of Project management structure • Review of project implementation strategy and its execution.
Sustainability	<ul style="list-style-type: none"> • To what extent are the benefits of the projects likely to be sustained after the completion of this project? • What are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach? • How were capacities strengthened at the individual and organizational level (including contributing factors and constraints)? • What could be done to strengthen exit strategies and sustainability of the project? 	<ul style="list-style-type: none"> • Examining exit strategy of the project • Identify key factors of sustainability and potential for replication • Assessment of Training reports produced and HH survey • FGD. KII and evaluators' judgement
Impact	<ul style="list-style-type: none"> • To what extent the project outputs were achieved and contributed to outcome level results? • To what extent can the program contribute to resilient and inclusive economic recovery through support to production, postharvest loss management, and market linkage? • To what extent has the support enabled citizen's trust in local government and its systems, particularly those of women? 	<ul style="list-style-type: none"> • Progress report, FGD • Progress report and evaluators' judgement • KII, FGD
Partnership	<ul style="list-style-type: none"> • How the partnerships affected the project achievement, and how might this be built upon in the future? • Have the ways of working with the partner and the support to the partner been effective and did they contribute to the project's achievements? • How does partnership with local partners including Palikas, cooperatives, farmers' association and other actors along the value chain? Does it create synergies or difficulties? What type of partnership building mechanism is necessary for future partnership? 	<ul style="list-style-type: none"> • KII, Project report • KII, Project report • FGD, KII
Gender equality	<ul style="list-style-type: none"> • To what extent have issues of gender and marginalized groups been addressed in the design, implementation and 	<ul style="list-style-type: none"> • Review Project Design Report, Progress report, monitoring

and Social Inclusion	<p>monitoring of the project?</p> <ul style="list-style-type: none"> To what extent the project approach was effective in promoting gender equality and social inclusion - particularly focusing on women and socially disadvantaged groups? To what extent has the project promoted positive changes for women and marginalized groups? Were there any unintended effects? 	<p>report</p> <ul style="list-style-type: none"> KII, FGD KII, FGD, Progress report
Human rights	<ul style="list-style-type: none"> To what extent have Dalit, ethnic minorities, women and other disadvantaged and marginalized groups benefitted from the work of the project and with what impact? To what extent have projects integrated Human Rights based approaches in the design, implementation and monitoring of the project? Have the resources been used in an efficient way to address Human Rights in the implementation (e.g. participation of targeted stakeholders, collection of disaggregated data, etc.)? 	<ul style="list-style-type: none"> KII, FGD, Progress report KII, FGD, Progress report

4.6 Stakeholder participation

Key stakeholders at national level comprised of MoALD, NARC, Academic Institutions (TU, AFU), UNDP, KOICA including VCDP project staffs. A. Local stakeholders comprised of local ward/municipality leaders, cooperative heads, and focal person of agriculture department of municipality, local level government chiefs and project beneficiaries. They were supportive in providing information and opinion about project intervention.

4.7 Ethical Considerations

The evaluation was conducted in accordance with the principles outlined in the UN Evaluation Group 'Ethical Guidelines for Evaluation.' The consultations ensured safeguard the rights and confidentiality of information providers, interviewees, and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The consultant also ensured security of collected information beforehand and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process is solely used for the evaluation and not for other users. The information shall only be disclosed with the authorization of UNDP and partners, if needed. Consultations was held to the highest ethical standards.

4.8 Background information on evaluators

The evaluation team comprised of senior experts who have in-depth knowledge on the value chain study of fruits and vegetables, and evaluation studies. The Team Leader, Mr. Janaki Prasad Khanal has specialization in agriculture extension. He is the expert in value chain based program development, monitoring and evaluation. The other team members- Dr. Bishnu Datta Awasthu is an expert in agriculture economics and marketing and Mr. Durga Prasad Pandit is a Horticulturist. Likewise, Ms Sawar Basnet Thapa is a GESI expert and Mr. Sugam Bajracharya is data analyst.

4.9 Major Limitations

Some of the limitations faced by the evaluation were:

- The survey team experienced difficulty in getting appointment with some key informants and opted for telephonic interview. Face to face interaction could not be made.
- Respondents were selected randomly before departure to the field. While going to the households some of the respondents were found not growing fruits and vegetables. To capture the opportunity of crop observation alternate respondents were selected and interviewed.
- The list of beneficiaries was provided by the VCDP. When the survey team reached the beneficiaries household the selected respondent was found absent in some of the municipalities. The enumerators selected alternate respondents from municipality record. This made data collection time consuming.

5. Data analysis

The collected data was analyzed both qualitatively and quantitatively with the mixed method approach. The primary data acquired in qualitative mode was analyzed using qualitative data analysis techniques such as validations, triangulations and interpretations, logically interpreting perceptions and statements, keeping in view the specific context of the respondents. The analysis of data integrated gender considerations, ensuring that collected data is disaggregated by sex, caste/ethnicity and other relevant categories where appropriate. Quantitative data was analyzed using simple statistical methods (SPSS). The output results of data analysis are presented in a tabular form i.e. cross tables and also graphics, diagrams, photographs, and so on were also used for presentation of data/information in the report.

Furthermore, mapping of the theory of change considering the inputs (training, revolving funds, extension services, post-harvest technologies and physical facilities and networking) provided by the project to achieve final outcomes were analyzed.

The draft report with an analysis of the key findings and recommendations is presented to UNDP, KOICA and other relevant stakeholders, thereby allowing a review and validation exercise to be conducted prior to finalization of the VCDP report.

6. Findings

This section presents findings against the evaluation criteria. The findings are presented against result indicators and the OECD/DAC evaluation criteria of relevance, effectiveness, coherence, efficiency, impact, sustainability, cross cutting issues, and coordination. This section presents the main evaluation findings for each specific evaluation question.

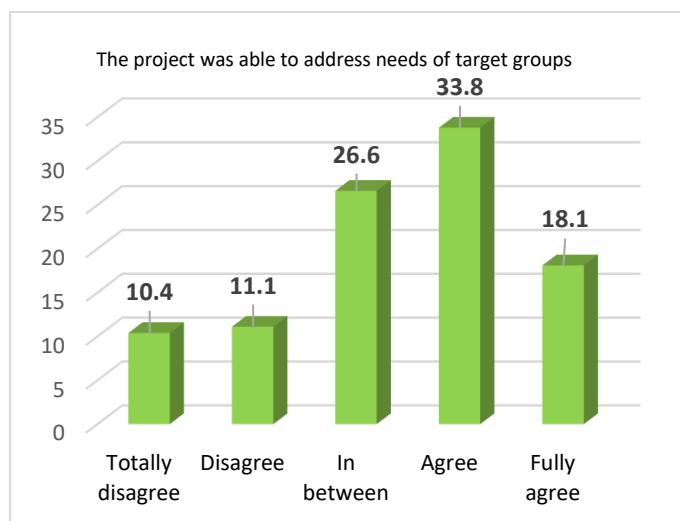
6.1 Relevance

The overall design and approaches, strategies adopted was relevant, realistic, and adequate in addressing the needs and priorities of the local government and target groups to value chain development of fruits and vegetables.

The project was designed to increase production, reducing postharvest losses, and improving the marketing system for selected fruits and vegetables in Bagmati and Gandaki province. The project approach was to provide cooperatives and farmers groups better access to production technology as well as improved crop production practices. Its activities included postharvest technology to be developed and rolled out in collaboration with Nepal Agricultural Research Council, reducing the scale of postharvest losses. The project provided support to physical facilities, organizational management, and access to market price information to collection centers and satellite market to enhance market linkages. The program was designed to these services to 40 municipalities of 12 districts along three road corridors- Araniko and BP highway, and Kathmandu- Pokhara. The targeted beneficiaries were 9,960 small holder farmers growing fruits and vegetables in selected pocket areas. But the project realized during the implementation period that Dolakha must be dropped and the municipalities limited to 37 only.

The project has supported 37 Palikas, 38 cooperatives, NARC and Universities (TU and AFU). Based on the absorbing capacity of Palikas, the project has categorized Palikas in four categories (Annex 4). The highest support was provided to Category A Palika and lowest to Category D Palika.

The overall design, approaches and strategies of the VCDP project was found relevant as the project put smallholder farmers producing fruit and vegetables and associated value chain actors at central. The respondents during household survey were asked to give their opinion on whether the program was able to identify and address the need of minority



groups and women. Majority of the respondents (51.1%) responded positively, whereas 26.6% of the total respondents mentioned that they neither agree nor disagree. About 10% of the respondents mentioned as totally disagree that the programme was able to identify and address the need and priorities of the local government and the targeted groups (Figure 2). This implies that although project has been designed and approach has been taken appropriately to cover all target groups including local government, the beneficiaries have not perceived it clearly either due to lack of information or the project implementation modality that most of the beneficiaries were not able to recognize that the support they received from the Palika is supported by VCDP.

Figure 3: Perception of the respondents on whether the project was able to address need and priorities of target groups or not

Low production and productivity, lack of market linkages and post-harvest loss are the key issues in Nepal's agriculture. VCDP has focused its activities on access to essential inputs, extension services, access to technology and financial support to improve production and productivity, access to technology for post-harvest loss reduction through research

and development, and improved market linkages through well-equipped collection centers, storage with coolbot technology and satellite market. Providing these services are highly relevant for farmers as well as other value chain actors as these are the key needs and priorities of the targeted groups including women and marginalized groups.

Table 4: Use of inputs, production, sale and income as perceived by respondents

Description	% Reporting increase	% Reporting decrease	% Reporting no change
Production Area	26.7	23.6	49.6
Production	42.7	32.5	24.8
Productivity	38.1	27.7	34.2
Price	47.7	25.5	26.7
Sale quantity condition	40.5	26.7	30.8
input price	64.8	11.3	23.9
Income from sale	37.1	31	32
Use of compost manure	55.8	14	30.3
Use of chemical fertilizer	35.2	36.2	28.6
Change in variety	54	12.9	33.1

Respondents were asked to express their perception on area, production, productivity, price, sale, input price, use of compost, use of chemical fertilizer and change of variety whether increased, or decreased or remained same during the last five years. At least, 42.7% survey respondents opined that their production during the project period has been increased. Productivity, price, sold quantity, input price, income from sale, use of compost and change in variety have also been increased as reported by majority of respondents. At the same period use of chemical fertilizer is decreased as reported by 36.2% respondents.

VCDP focus on functional capacities of its partner institutions. NARC was provided with laboratory facilities and fund to develop postharvest technology (Annex 6). With this support NARC was able to develop 10 postharvest technologies and these technologies were transferred through palikas to the farmers groups and cooperatives. Additional three research papers were published and rolled over to the beneficiaries.

Similarly, post graduate students studying agricultural science in TU or AFU were awarded thesis grant for carrying out research in given thematic area. This support brought quick output to postharvest technology in fruits and vegetables.

The project was able to address the needs and priorities of the target groups and communities in the crisis context and changing conditions.

The project was able to address the needs and priorities of the target groups during COVID-19 pandemic by providing relief with special program during lockdown period and also addressing needs of migrant returnees who lost their jobs abroad. Eight collection centres were established during COVID-19 situation resulting short term employment to local farmers. Agri-ambulance was introduced to facilitate the market functioning during lockdown. As the projection on the COVID-19 situation was unclear without knowing when this ends, the need of extension provision through ICT was frequently addressed. As a management response, the project revised its annual work plan and initiated ICT based extension services through partnership with FM radio and local governments to continue provision of farming information. This enabled farmer to have access to information without a need of visiting extension officers in person and 47.2% of respondents were satisfied with the ICT based extension services.

The impact of COVID-19 affected the market functioning, leading to higher risks of food security and vulnerability. However, even in the situation of pandemic, the local government, cooperative and other market actors were able to execute some of its activities at local level through COVID19 relief and response activity such as for transportation and marketing support, youth and foreign returnee support program of the project. As a result, this enabled farmers to be a part of cooperatives and groups. The number of farmers who linked with groups and cooperatives was increased by 13.3% and 29.4% respectively in endline as compared to baseline (Figure 4).

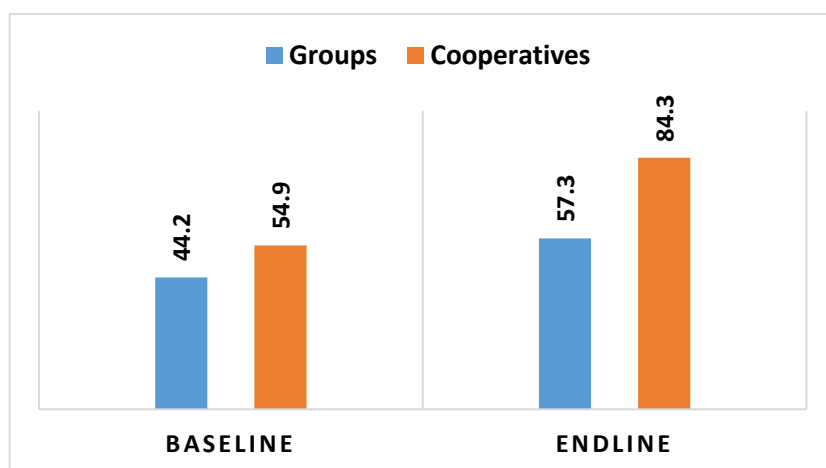


Figure 4: Percentage of farmers linked with groups and cooperative

The project had continuously coordinated with Palikas to swiftly act upon in the situation of pandemic. The project supported farmers and stakeholders' transition to recovery through a combination of relief fund provision, support to transportation, agri-entrepreneurship support to migrant returnees, and protective

materials provision. It provided financial support to Palika/ cooperative to buy seeds and required materials based on request of groups and cooperatives. These activities minimized the impact of pandemic on project activities by continuing its agricultural production and marketing support. It strengthened the collaboration among different stakeholders of the project and continued its extension services through different virtual medium. All these activities contributed to the gradual transition of farmers and stakeholders to recovery, and paved way forward for the migrant returnees for future course of action towards agri-entrepreneurship and some of the migrant returnees also highlighted that they want to continue working in agri-business in future. The project also supported on delivering seasonal seeds to the farmers of different pocket areas and in marketing of farmers' produce in coordination with Palikas and cooperative/market centers by providing vehicles support for transportation of farmer's products. The input provision in the form of seed, transportation vehicle for transporting vegetables and fruit to the market have benefitted the farmers. For example: Phedikhola Rural Municipality with technical and financial support of VCDP, has mobilized agriculture ambulance to ensure perishable commodities reach not spoiled to the consumers during the lockdown period and that even without involvement of intermediaries and at reasonable price. Following a positive impact of agri-ambulance, other cooperatives are also planning to buy vehicle for agriculture products transportation. Overall, these reprogrammed activities contributed significantly to meet the local needs. However, several activities were postponed and could not be carried out timely due to rapid spread of COVID-19 such as gross margin analysis, in person training and exposure visits, study on financial incentives for technology adoption and promotional video production. These activities took momentum later when lockdown was eased.

The project supported 69 migrant returnees (10 women, 6 Dalits, 24 janajati)) during COVID-19 pandemic in 7 Palikas for construction of polyhouse installation of drip irrigation, cattle shed improvement, cattle urine-based bio pesticide preparation, mini tillers for land preparation, pit digger for fruit plantation, vegetable clippers, and small farm equipment to start up agriculture entrepreneurship. This was a relevant action of the project as most of the migrant came back to their home leaving their job temporarily or permanently. The project was able to tap those migrant returnees and contribute to stop them from re-migrating through providing them an opportunity to engage in some kind of business in their own country.

The results achieved a differentiated impact on women and other vulnerable groups.

The results achieved had a differentiated impact on women, Dalits and janjatis. The project approach provided for opportunity to landless who could find job in postharvest activities that does not require own land. Though the project has no data on such employment, during observation in the field it was found that such individuals specially women were found engaged in cleaning, sorting and packaging work. Each and every class of citizens have been taken care by the project on human rights approach- women Dalits, janajatis, differently abled persons. The UNDP Strategic Plan 2018-2021 commits to the principles of universality, equality and leaving no one behind. It focuses on strengthening gender equality and the empowerment of women and girls among other solutions to better respond to development settings

i.e. poverty reduction, eradication, structural transformation for sustainable development, and resilience building to shocks and crises.

Annual progress reports of VCDP report that 9,000 farmers (53% female, 51% from ethnic minority groups) got empowered through training and visit in increasing their incomes. Since 2018, the project reached out to 18,420 farmers (58% women, 51% from minority groups) for strengthening the agricultural value chain. A total of 21 cooperatives improved physical facility. The project reached to 301 farmers with disability out of which 114 were female and 211 from ethnic minority and disadvantaged groups. They were provided with training and inputs (seed) and technical support by the project. These activities brought differentiated impact on women and men. Women could perform production activities scientifically and were also doing postharvest operations like sorting, cleaning and packing whereas men were more engaged in marketing activities. The project has a differentiated impact on such groups.

The project has contributed to the national policies and strategies:

The project was well aligned with the national priorities and strategies of the country. The project contributed significantly in addressing the national policies and strategies as the key indicators of the project were in line with the Sustainable Development Goals (SDGs).

SDG 2 emphasizes doubling agricultural productivity, increasing investment in agricultural research and extension services, and ensuring the normal functioning of the food market. The project activities were in line with increasing productivity of fruits and vegetables, increasing investment in agricultural research through support to NARC and thesis grant to students, promoting extension service by Palikas and ensuring normal functioning of food market even during crisis situation like COVID-19 pandemic.

Similarly, SDG 8 promotes sustainable economic growth and employment which would contribute to agricultural development. The project supported economic activities in agriculture such as production, postharvest and marketing which has created additional employment to the farmers. The project has provided technical and financial support to 69 migrant returnees to start agriculture entrepreneurship.

SDG 12 addresses food loss reduction along in production and supply chains, including post-harvest losses. The project was in line with the targets of SDG. The Project has promoted harvest and postharvest loss reduction technology generation and its extension to the stakeholders- farmers, traders, processors etc.

The project contributed to the national policies such as National Agriculture Policy and Agriculture Development Strategy (ADS). This is in line with Agricultural policy and ADS as below.

Agricultural policy 4: Priority shall be given for development of high value agricultural commodities pocket area development along north south high way and secondary roads.

ADS: The overall objective of the ADS includes five dimensions of increased food and nutrition security, poverty reduction, competitiveness, higher and more equitable income of rural households, and strengthened farmers' rights. The project objective is in line with poverty reduction, higher and more equitable income of rural households, and strengthened farmers' rights.

Agriculture mechanization policy: VCDP project has worked in line with the Policy objective 3: Identification and promotion of women and environment friendly agricultural mechanization.

15th Plan 2018-22: Strategy of 15th periodic plan is Facilitate accelerated, sustainable and employment-oriented economic growth, Increasing production and productivity, Alleviating poverty and ensuring equality and justice-based society. VCDP project strategy was in line with 15th plan of Nepal.

The reprogramming of project activities for immediate COVID-19 response was very relevant to meet the local needs.

Considering the restrictions imposed due to COVID-19 that impacted the planned activities adversely, the COVID- 19 relief activities were initiated by VCDP during lockdown period. The project supported farmers and stakeholders' transition to recovery through a combination of relief fund provision, support to transportation, agri-entrepreneurship

support to migrant returnees, and protective materials provision. It provided financial support to Palika/ cooperative to buy seeds and required materials based on request of groups and cooperatives. It also organized training and provided direct financial support to the migrant returnees to establish a farm. An agriculture entrepreneurship support was provided to 69 migrant returnees (10 female; 6 Dalits; 24 Janjati). A training on 'Tomato and Other Crop Cultivation under Polyhouse' was provided to 20 migrant returnees and youth (6 female, 4 Dalit, 4 Janjati) and 2 Palika Technicians (1 female and 1 male) to capacitate them with commercial farming. Similarly, with the material support of VCDP, 16 migrant returnee youths constructed polyhouse and cultivated tomato and got good earning. Each entrepreneur produced tomato and sold to market with the worth ranging from Rs 12 thousand to 100 thousand. Also, 37 agri-entrepreneurs (Phedikhola, Namobuddha and Putalibazar Palikas) were provided with mini-tillers and were trained on its operation and maintenance. Besides, as reported in Annual Report 2020, 11 technical manuals, articles, handouts, poster and information sheets were published and distributed. These activities minimized the impact that the pandemic had on project activities by continuing its support through agricultural production and marketing. It strengthened the collaboration among different stakeholders of the project and continued its extension services through different virtual medium. All these activities contributed to the gradual transition of farmers and stakeholders to recovery, and paved way forward for the migrant returnees for future course of action towards agri-entrepreneurship and some of the migrant returnees also highlighted that they want to continue working in agri-business in future.

The project also supported on delivering seasonal seeds to the farmers of different pocket areas and in marketing of farmers' produce in coordination with Palikas and cooperative/market centers by providing vehicles support for transportation. This action highly benefited the farmers. Phedikhola Rural Municipality with technical and financial support of VCDP, has initiated agriculture ambulance to ensure the perishable commodities freshness at the market. Following a positive impact of agri-ambulance, other cooperatives are also planning to buy vehicle for agriculture products transportation. These reprogrammed activities contributed significantly to meet the local needs. Table 7 presents the newly added project output in COVID-19 context and the progress made so far in the activities.

Table 5: Reprogrammed due to COVID-19 Activity Progress

Project Output	Indicator	Target	Activity
Combat impact of COVID19 through agricultural production and marketing support	Number of Palikas executing Farmer Relief Fund	37	Establish and mobilize farmers Relief Fund at Palika and Cooperatives for relief and recovery
	Number of cooperatives, market centres, and Palikas received transportation and marketing Support	20	Transportation and marketing support
	# of returnees and youth benefitted in 7 palikas (names)	65	Youth and foreign returnee support program for COVID19
	# of extension staff and market operators receiving protective materials	140	Protective and safety materials for extension staff and cooperative operators

Reprogramming was immediate action on providing relief to COVID-19 affected people. At the time when other service agencies were hesitating to go to the field VCDP got flexible to divert budget towards relief fund and provided above mentioned support. This was a very relevant action.

6.2 Effectiveness

The output level results were achieved satisfactorily and contributed to the project outcomes

The project activities were delivered timely as targeted and contributed towards achieving the project outcomes.

Project outcome 1: Agricultural productivity and Production support

The project reached to 18,420 beneficiaries' farmers (57% female, 47% minority groups) and 41 cooperatives and 27 market centres in 11 districts in Bagmati and Gandaki provinces. A comprehensive support package for improved access to production technology was transferred to Agriculture Officers, farmers and cooperative officers with policy, plan, financial, technical, and input supports. 110 Agriculture Technicians (52 female, 33 from minority groups) and 132 cooperative members (42 female, 31 from minority groups) were particularly benefitted by training on plant clinic, farmer diary, soil and water management, and cooperative management in the last year of the project. This support was effective to increase productivity from 14.3 mt/ha to 17.3 mt/ha.

The project has made decent progress in improving agricultural productivity through increased capacity of government agencies and increased access to production technology by farmers. Capacity enhancement of agriculture technicians, lead farmers, and farmers were done through different training and workshop- both in person and virtual. In total, 730 participants (455 women and 39% janajati) extension officers, agro-vets, lead farmers, cooperative officers have received comprehensive support package for improved access to production technology through different trainings along with policy, plan, financial, technical, and input supports. Out of the target 10,000 farmers, 18,420 beneficiaries' farmers (57% female, 47% minority groups) have received extension service on production technology and practice and have also received input support and services through Palikas and cooperatives. Also, 15 technology booklets related to production and postharvest technology, for transferring the knowledge to farmers, were developed, printed and distributed. The manuals have paved way for dissemination of knowledge and technologies to the farmers.

Project Outcome 2: Postharvest loss management

Post-harvest losses of average fruits and vegetables was reduced while transporting the commodities from farm to collection center and wholesale markets by volume particularly due intervention of different technology. This decrease is 5% in fruits and 3.8% in vegetables. In terms of the outputs, the capacity of NARC has been strengthened through several activities. 22 human resources (almost double the target) were hired and engaged in project activities and technical inputs were provided for postharvest technology related research. Financial support was provided to 20 research (double the target) on production support, postharvest management and marketing conducted by students mastering in agriculture science, physical facility of the postharvest laboratory at the NARC Horticulture Center was improved.

Similarly, the project has been able to develop postharvest losses reduction management technologies by the NARC. As targeted, 3 postharvest technologies have been developed out of which, 2 technologies have been tested. 18 manuals on postharvest loss management have been produced while technology dissemination strategy have not been developed. Despite the target, financial analysis report with analysis of financial incentive of technology adoption have not been done. Due to this, farmers have low level of awareness about potential incentive of postharvest technology adoption. This has delayed the anticipated result of the project at the beneficiary level as the ownership, adoption, and use of technology is yet to be done. Only 40% of the public and non-government extension officers have been provided training while 17.6% (1085) farmers and cooperatives have received extension on postharvest technology. More than 100% (7,109) farmers have received agricultural inputs and services through the project, Palika and cooperatives. Through this, the project has been able to transfer postharvest technology to farmers with improved access to input support.

Similarly, project has been able to combat impact of COVID-19 through agricultural production and marketing support by establishing farmers' relief fund mobilized by Palikas and Cooperatives for relief and recovery. This has enabled 50% of the target cooperatives, market centres, and Palikas to receive transportation and marketing support while 69 migrant returnees (female 10, minority 30) i.e., more than 100% of the target have benefitted from the support program. Almost 79% i.e., 111 extension staff and market operators received protective materials. 301 farmers with disability (female 114, minority 211) were supported with training and inputs. The reprogrammed activities have been able to minimize the impact of pandemic by continuing the support in agricultural production and marketing.

Project Outcome 3: Market Linkage

In order to improve market linkages, support on physical facilities i. e. digital board displaying live market information provided to 42 collection centers. The project has provided support also on improved market information network to collection centers/wholesale markets, however, only 2 of them are using the improved market information network. Similarly, 2 cooperatives received equipment for the physical support for market information system. Technical inputs made by Value Chain and Market Linkage Specialist is continuing. This outcome is less effective than other two outcomes. Similarly, 515 participants (female 17 and minority 17) received marketing/cooperative management training, 27 participants (female 9, janajati 6) joined exposure visit.

Key internal factors that had contributed to impede the achievements were lack of extension workers in palikas, low capacity of palika, cooperatives and market centers in need identification and planning, low adoption of postharvest technology by the farmers and poor access to market facilities. These failure factors were corrected by the project timely by capacity development activities and providing support to palikas, market centers and cooperatives. Support to NAARC for postharvest research was provided in time. However, the technology developed through project support cannot be attributed during project period and hence cannot be assessed their effectiveness because the technology support was provided lately i.e. final year of the project. Same is the case with research grant and internship provided to the universities for postharvest technology related research by the students. The project examining the capacity of Palikas in planning and execution of activities categorized them in four categories and supported them accordingly so that the resources could be used effectively.

The external factors related to the project were the uncertainty in market price. The project supported through palikas to the cooperatives in fixing support price of fruits and vegetables and provided top-up grant in case of price drop below the support price. Timely availability of quality inputs (seeds and fertilizer) still remains the impeding factor in effective implementation of project activities. The project has well addressed the impeding factors as the project has provided inputs support to the beneficiaries which has managed the impeding factors.

The project has been effective in enhancing the capacity of local partners to create an enabling environment for value chain development.

The project had program for capacity development of all stakeholders including palikas, cooperatives, market centers, and agrovets based on the needs of each organization. The important training were farmers diary keeping for producers, cooperative management training for cooperative members, agricultural planning for palikas and technical training to farmers. Number of participants including female and minorities are shown in the Table 6.

Table 6: Participation of local partners in training and other activities

Local partners	Total	Female	Minority
Palikas	110	52	33
Cooperative	132	42	31
Farmer	114	55	32
VCDP	22	8	7

The project also sensitized agrovets for getting license which is mandatory to run the business. This approach was found effective in monitoring agrovet business which time and again were criticized selling low quality seeds and fertilizers. During interview with the university representatives, majority of the respondents mentioned that the grant provided by VCDP was strongly helpful to carry out research on post-harvest technology. Students get adequate grants with timely payment from VCDP to conduct their research activities, which lead to effective researches and authoritative writing. Similarly, laboratory establishment strengthened with all the equipment that are required for the post-harvest research at NARC, Khumaltar. The list of laboratory equipment provided by VCDP is presented in Annex 6. Also, NARC completed majority of the proposed research, on-station and on farmers' field till date. As missionaries in project papers, scientist of NARC were supposed to go for tour, attend different seminars and workshops, but due to COVID- 19, it is not yet accomplished.

Monitoring arrangements have been effective and supported adaptive management

There were regular progress monitoring, risk monitoring, social and environmental standard monitoring done successfully by the project. . UNDP regularly conducted audit to ensure transparency and accountability. Quarterly, half annual and annual reports were submitted to UNDP for review and feedback. Other monitoring arrangements were regular board meeting, periodic monitoring through visits, mid term reporting and end term reporting, audit and learning and knowledge sharing. These monitoring arrangement proved very effective in program rescheduling and quality control of the implemented activities. The lessons learned from the monitoring and feedback of the monitors was incorporated in subsequent process of planning and implementation. The monitoring arrangement was very effective with consideration of MTE recommendations. Upon recommendation of MTR 2021 the theory of change was revised. Project board meeting was held quarterly and even more as needed and assessed project achievement and further course of action. Monitoring arrangement was effective in program reformulation and reallocation of budget when necessary.

The project contributed to the UNDP Country Programme Document outcome and outputs, the SDGs, the UNDP Strategic Plan, and national development priorities such as Agriculture Development Strategy

Sustainable development Goal 1.4: equal rights and access to economic resources- VCDP has partial contribution on this goal providing equal rights and access to economic resources for farmers irrespective of caste, ethnicity and gender.

Sustainable development goal 2.3: By 2030 double the agricultural productivity- VCDP has partial contribution to this goal by enhancing productivity of selected fruits and vegetables in its command area.

Sustainable development goal 2.4: By 2030 ensure sustainable food production system- VCDP has partial contribution to this goal by teaching farmers manage farm yard manure, use cow urine and practice IPM in fruits and vegetable production.

Sustainable development goal 12.3: by 2030 half per capita global food waste at retail and consumer level and reduce food losses along production and supply chains, including postharvest losses- VCDP has fair contribution to this goal by making efforts to reduce postharvest loss of selected vegetables and fruits.

UN Strategic plan 2018-2021:

Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded- VCDP has fair contribution to this plan by creating employment and livelihoods for the poor and excluded by making them capable and involving them in various program activities.

UN country program document:

Outcome 1: By 2022, impoverished, specially economically vulnerable, unemployed and under employed people have increased access to sustainable livelihood, and safe and decent employment and income opportunities.

Output 1.1 and 1.3 is partially met and the project has limited contribution to gender equality.

The project has limited contribution to SDG and UN plan and programs

The project is successful in creating employment and income opportunities to the local people

The project was able to create employment for migrant returnee providing training supporting for their own business. 69 migrant returnees received training and support to start business as proposed by themselves. They were self employed in their business and also provided employment to others. The project support on market centers, cooperatives and palikas created opportunity for the local people to engage in activities thus created. These activities included management of cooperatives and market centers. The project has created employment in strengthened market centers and income opportunities to local people who received plastic tunnels, plastic mulch supporting to intensive cultivation of tomato, capsicum etc.

The project was effective in ensuring concerns around GESI integrated in its approach

The design document has explicitly provisioned concern of GESI in the design and implementation of the project. The provision is to have women and janajati participation in all project activities. Project activities were carried out taking into account of concerns of GESI. It is found that women participation in project activities is 58% and that of janajati is 51%. However dedicated program and activities for Women empowerment is lacking in the project design. It is obvious that their involvement in project activities makes them empowered but unless we have program and indicators we cannot properly measure their effectiveness. The integration was effective in bringing the expected outcomes.

6.3 Coherence

The Project intervention fits in the changed political structure of Nepal

The 2015 Constitution established Nepal as a federal democratic republic with three tiers of government – local, provincial and federal. The country in effect made a historic move from a unitary form of government to a federal system with 753 local levels, seven provincial governments, and one federal government. VCDP was designed to support local governments of 40 municipalities along three road corridors for value chain development of fruits and vegetables. This project was well fitted in local government. The interventions were need based at the local level and also sought support from provincial (AKC) and central level (NARC) for technical support and technology generation. This arrangement has made service delivery more effective and accountable. The VCDP intervention was a critical approach to accelerate agricultural development and rural employment generation by mobilizing local governments. Therefore, the approach of VCDP was well fitted in the changed context.

The intervention was coherent with government policies.

The intervention was coherent to Agriculture Development Strategy, gender mainstreaming in agriculture, agribusiness promotion policy and agriculture mechanization promotion policy. Nepal's Agriculture Perspective Plan (1995-2015) has prioritized postharvest technology for fruits and vegetables. The project is also coherent with the 15th Plan (2020-2024) which has long term prosperity goal of Accessible modern infrastructure and intensive connectivity, Development and full utilization of human capital potentials, High and sustainable production and productivity. GESI component of VCDP was coherent with the gender mainstreaming strategy of the ministry of agriculture and livestock development. VCDP has several mechanisms in place such as market centres equipped with facilities for postharvest operations, installation of ventilated stores in new rural markets and improvement of packing systems for the transportation of fruit and vegetables from collection centres to wholesale markets. Similarly, APP and Agricultural Development Strategy (ADS) have adopted "pocket approach" that aims for specialization and commercialization to which the strategy of VCDP is coherent with. The intervention was also in line with the "Game Changer" projects of Nepal such as Prime Minister Agriculture Modernization Project which aims to enhance competitiveness and to ensure food and nutrition security by industrializing the sector to create sustainable economic opportunities and to be self-reliant in agricultural production. One of its major activities is to enhance value chain by assisting the establishment of the processing industry and postharvest centre, market management and regulation of the quality of food commodities and expansion of quarantine services.

The intervention addressed the synergies and interlinkages with other interventions carried out by UNDP or Government of Nepal

The project was designed and implemented under UNDP's overall strategy to support the MoALD, provincial governments, and local governments to strengthen the agriculture value chain with a focus on income generation of the smallholder farmers. VCDP played an important role in the engagement of multiple stakeholders both from across government and outside government for fruit and vegetable value chain development. This project was also coherent with value chain development project and agriculture sector development project of Karnali province supported by DIFID which is also working in road corridors. It was also coherent with the Rural Enterprise and Economic Development (REED) Project of the Ministry of Agriculture and Livestock Development which aims to stimulate the development of rural enterprises by strengthening market linkages among smallholder producers and players in the agricultural

commodity value chain; and by strengthening the enabling environment for the development of enterprises in key economic corridors of the country. The Project, among others, provided funding for productive partnership's start-up business plans, upgrading and building demand-driven market centers, value chain related infrastructures and semi-public infrastructures and facilities at local level to support the partnerships and their communities. The government has recognized the important contribution of cooperative, local government and private sector that can play a role in this endeavor with coordinating projects like Prime Minister Agriculture Modernization Projects which focuses on commercialization of commodities with identifying – commodity specific pockets, zones and super zones areas. VCDP was designed and implemented in accordance with the similar approach.

It was coherent with other UNDP supported projects like Microenterprise Development Programme (MEDEP, 1998-2018), Community Infrastructure Livelihood Recovery Program (CILRP, 2015-2017), GEF Small grant Programme (2015), Supporting Nepal to Integrate Agriculture Sectors into National Adaptation Plans (2017-2020) and Cooperative Market Development Programme. All of these projects have contributed to the agriculture development in Nepal. There could be potential collaboration between these projects with VCDP developing new postharvest technologies and the CMDP using postharvest loss management.

6.4 Efficiency

The resources including human, material and financial resources were used to achieve the results in a timely manner:

Due to change in implementing modality of the project, it has supported human resources such as agricultural technicians at Palika level which was found efficient to manage the project smoothly.

Table 7: Budget Expenditure

Year	Budget in the project document	Revised budget	Expenditure	Cumulative Expenditure
2018	325,695	242,261	242,261	242,261
2019	1,290,025	1360,398	1602,659	1573410.74
2020	1,651,982	947958	2550,617	2518168.99
2021	1,449,680	1320,927	3871,544	3217756.99
2022	782,618	1628456	1393,807	3712254.02
Total	5,500,000	5500,000	5265,351	96%

Source: Compiled from Annual Progress Reports of VCDP, 2018-2022

The project was able to spend 96 % of total budget till December 15.

The fund flow mechanism (Letter of Agreement, Low Value Grant, or Value Chain Grant) has been an appropriate and efficient mechanism to leverage the resources of the community

Key informant interview with palika officials, NARC, AFU and IAAS revealed that the fund flow mechanism of the project was very efficient in releasing budget in time to the needy clients. The fund flow mechanism was appropriate and efficient. The fund flow mechanism of VCDP was direct to palikas, cooperatives and market centers. These three entities are independent to carry out their programs. The project also supported research grants to masters' degree students studying in AFU and IAAS, research and lab equipment support to NARC and ITC support to AITC..

The existing project management structure was appropriate and efficient in generating the expected results.

The project implementation structure has set out an organization chart and consists of Project Board, National Program Director, National Project manager, program assurance and project staff. MOALD has deputed a Joint Secretary to work as National Project Director. The Nepal Agricultural Research Council is co-implementing agency, KOICA and UNDP act as senior supplier in the Project Board which is the decision making body responsible for project implementation. Board

meeting used to be held at least twice a year to make decision on project matters. The existing project management structure is as shown in Annex 10.

Apart from project staff at the center, the project has supported needful municipalities to hire consultants thus making the whole team capable to generate the expected result. They were found working efficiently. The project implementation strategy and its execution has been efficient and cost- effective.

The project implementation structure in the project design is given in Figure 5. The project during its implementation added agriculture officers in some of the municipalities where technical manpower shortage was hindering agriculture extension activities of the municipalities.

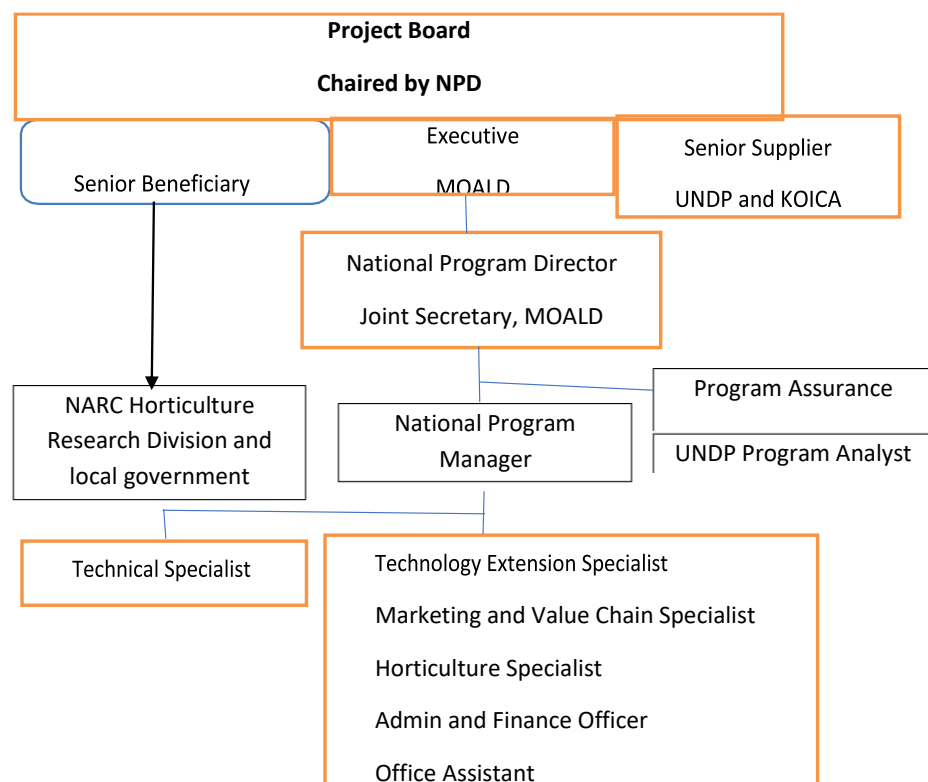


Figure 5: The project implementation structure

6.5 Sustainability

The benefits of the projects are likely to be sustained after the completion of this project

The project intervention has contributed to improving the enabling environment for development in the municipalities, cooperatives, and market centers. It has strengthened the capacities to support future development activity. This ensures that the net benefits, as discussed earlier, shall continue. The intervention has built an enabling environment for inclusive and equitable development, addressing underlying The project has increased capacity of different stakeholders to sustain the project. There was both capacity and commitment from different stakeholder groups to create and uphold an enabling environment for gender equality and women's empowerment over the medium to long term. So, the benefits are likely to be sustained.

The project has strengthened capacities of different stakeholders at the individual and organizational level. Such capacities include (i) Periodic planning support to 37 municipalities; (ii) Training on production technology and optimal farming practice to 193 JTAs, Cooperative leadership training to 537 cooperative members; (iii) Farmers diary keeping to 176 farmers; (iv) Agri-business startup and business plan preparation for 69 rural youths.

To help Palikas capacitated in planning and implementation, the project supported Palikas to develop the Agriculture Sectoral Plan. As a result, thirty-seven palikas were able to prepare and implement the consolidated agriculture annual

plan. As a part of legal instrument, project has developed the Local Agriculture Programme Operation and Management Procedure and Standard Norms and facilitated Palikas to localize and endorse it from their respective council. All these efforts have established base for continuity of the project activities. This will contribute to sustain the project.

43 persons from the partner organizations NARC, Palika technicians and government officers from MoALD were capacitated through exposure visits. This capacity enhancement of enablers will aid to the sustainability of the project. The prospects of sustainability of project is analyzed as follows

- Service delivery by the municipalities shall continue in the current pace. They will be able to retain technical manpower (Agriculture Officer), presently hired with project support
- Resource allocation to agriculture sector in the municipalities will get priority.
- Cooperatives and market centers will coordinate and link with all the stakeholders- backward and forward.

6.6 Impact

The project outputs were fairly achieved and contributed to outcome level results

The project outputs targeted annually by the project under project outcome 1,2, and 3 have been achieved successfully. This has initial impact on productivity (21.3% increase), sale of commodities (30.1% increase and postharvest loss reduction (3.8% reduction).

Project impact in economic and demographic parameters in comparison to baseline status is presented in Table 8.

Change in economic and demographic parameters within last five years is presented in table below.

Table 8: Change in economic and demographic parameters

SN	Parameter	Baseline	Endline	Difference
1	Food sufficiency (%)			
	12 months or more	23	30.1	6.7
	9-12 months	24	24.6	0.1
	6-9 months	13	17.8	4.5
	3-6 months	10	16.1	6
	Less than 3 months	28	11.3	(17.3)
2	Residential status (%)			
	Outside village	13	9.7	(3.4)
	Outside country	6.24	5.5	(0.74)
	At home village	80.65	84.8	4.25
3	Employment in agriculture (%)			
	Male full time	39.4	9.3	(30.1)
	Female full time	42.6	45.4	2.8
	Male part time	9.4	24.7	16.3
	Female part time	8.6	20.6	12
4	Households involved in groups and cooperatives (%)			
	Groups	44.2	57.3	13.3
	Cooperatives	54.9	84.3	29.4
5	Average annual family income (Rs)	635,468	48,148.94	12681
6	Average annual family expenses (Rs)	398851	85,817.15	(13034)

Source: VCDP baseline survey and final evaluation.

The food sufficiency status of the survey households have been found increased in all the sufficiency groups except for less than 3 months which indicates that the household are more secured with food availability during the project period.

Male full time employment in agriculture has dropped but their part time employment has increased suggesting their increased multiple role in the households. Female employment both full time and part time is found increased. The production, processing and selling of the commodities under value chain development of VCDP has made women more engaged both full time and part time in various operations under value chain. It is found that more and more farmers are being united in groups and cooperatives.

Average annual family income have been found increased by NRs 12,681 during the project period and average annual family expenses reduced by Rs 13,034. This is a good effect of the project intervention.

Respondents were asked to express their perception on area, production, productivity, price, sale, input price, use of compost, use of chemical fertilizer and change of variety whether increased, or decreased or remained same during the last five years. Most of the respondents (49.6%) had the opinion that production area has remained same while production increase is reported by 42.7% in end line and 50 % in baseline. Majority of the respondents during baseline survey had reported increase in most of the above mentioned parameters but final evaluation survey data showed mixed reactions without any significant variation in increase or decrease.

Average income and expenditure of respondents

The average income and expenditure of the respondents is presented in Table 9.

Table 9: Income and Expenditure (Rs)

District	Income	Expenses	%	Surplus
Nawalparasi-East	16772500	7332000	43.7	9440500
Chitwan	54395875	33268050	61.2	21127825
Makwanpur	27857425	21990400	78.9	5867025
Kavre	62448460	42485508	68	19962952
Sidhuli	25737716	11999660	46.6	13738056
Ramechhap	2548300	2541000	99.7	7300
Syanja	30185510	15232000	50.5	14953510
Kaski	21323335	10785000	50.6	10538335
Tanahu	19291540	8089500	41.9	11202040
Gorkha	3428000	1028500	30	2399500
Dhading	4993150	4062500	81.4	930650
Total	268981811	158814118	59	110167693

The total income of the respondents is Rs 26,898,181 and expenditure is Rs 15,881,411 leaving annual surplus of Rs 11,016,769. The average annual surplus of the respondents comes out to be Rs 265,464.32.

The program can contribute to resilient and inclusive economic recovery through support to production, postharvest loss management, and market linkage

The program has contributed to inclusive economic recovery through support to production such as improved seed, plastic tunnel for off season vegetable production, plastic mulching for production and fruit picker, plastic crate, net bag, plastic bag for postharvest loss reduction and providing market linkage to the farmers by establishing collection centers at various places. During COVID-19 pandemic, the project supported immediate recovery materials such as seed kits for production and transportation vehicle for marketing. The project supported establish farmers call center and FM radio to provide distant information and technical advice to the farmers at the time of lockdown. This resulted in continuing pace of development without disrupting food chain. The program highly contributed to resilient and inclusive economic recovery.

6.7 Partnership

Partnership among research, extension and education is necessary for agricultural development. VCDP has taken care of this arrangement providing support to these three sectors. Nepal Agriculture Research Council, academic institutions (AFU, IAAS, HICAST) and local governments are responsible for research, education and extension. Local government/Palikas as implementation partner, NARC and academic institutions as technology generators, cooperative as activities promoting and implementation partner for infrastructure development like collection center, market place, KOICA and UNDP as senior supplier of the project were working effectively from their sides. This project has provided an avenue to strengthen the linkages between UNDP Nepal and KOICA Nepal. The partnership with local government, cooperatives, and farmers' group have created synergies and contributed positively to project's achievements. This partnership has positive impact on project achievement. In the future projects, partnership with research, education and extension involving private sector and public sector should be established.

Working with cooperatives, market centers and palikas and support to these entities have been very effective and has contributed a lot in project's achievements. But the result of the support made to NARC and educational institutions are yet to come, because technology generation and testing takes a long time.

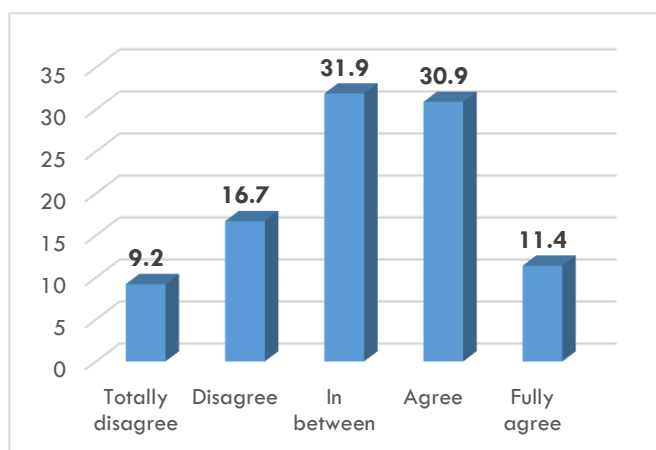
Partnership with palikas, cooperatives, farmers associations and market centers has created synergy in achieving project outcomes. In future partnership with all the backward and forward actors of the value chain should be maintained. This project lacks linkage with private sector.

6.8 Cross Cutting Issues

The program has efficiently addressed the needs of women and socially disadvantaged groups and ensured gender and social inclusion in all aspects of program implementation.

The program has efficiently addressed the needs of women and socially disadvantaged groups and ensured gender and social inclusion in all the aspects of program implementation. Cooperatives role is significant for women and marginalized groups to enhance access to finance and farm level enterprise development.

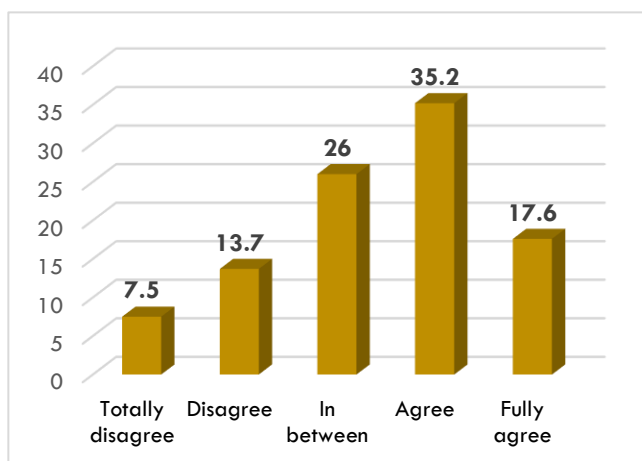
The program has prioritized women and marginalized groups in the planning and implementation of the activities. Women and disadvantaged groups were prioritized during program to ensure their involvement in program implementation so that they could equally benefit from the support provided and also take part in decision making process.



The project has benefitted a total of 18,420 smallholder farmers against 9,960 targeted. Among them 57% are female and about 47% belonging to Janajati and Dalit ethnic group Table 10.

The respondents were asked about whether program was able to support in increasing production, managing in post-harvest loss and linkage to market for minority groups and women, majority of respondents responded positively (42.3%). About 32% of respondents could not decide or had no idea (Figure 6).

Figure 6: Perception of the respondents on the statement "program was able to support in increasing production, managing in post-harvest loss and linkage to market for minority groups and women"



The respondents were asked about whether program was able to support in increasing practice of jointly working together among men and women, majority of respondents responded positively (52.8%) (Figure 7).

Figure 7: Perception of respondents on the statement "Increasing practice of jointly working among men and women"

Further, majority of respondents replied that both men and women work and decide jointly for different activities

Table 10: Participation and decision making by men and women on different agricultural related activities

S. No.	Activities	Gender	Percentage
1	Whether agriculture products are to be sold or not	Female	20.2
		Male	13.3
		Both	66.5
2	Which agriculture products to be sold	Female	20.2
		Male	13.5
		Both	66.3
3	How much quantity of agriculture's products to be sold	Female	18.8
		Male	11.6
		Both	69.6
4	Price fixation of agriculture's products to be sold	Female	16.6
		Male	15.7
		Both	67.7
5	Location/ market of agriculture's products to be sold	Female	16.1
		Male	17.3
		Both	66.5
6	Which buyer will be chosen for agriculture products to be sold	Female	16.9
		Male	15.2
		Both	68.0
7	Buying agriculture products if they don't produce the product.	Female	16.6
		Male	12.3
		Both	71.1
8	Loan/ debts seeking	Female	16.4
		Male	15.4
		Both	68.2

The respondents were asked about whether activities of program were able to impart positive changes in strengthening of minority groups and women, majority of respondents responded positively (53.5%).

The program has integrated Human Rights based approaches in the design, implementation and monitoring of the program.

The project has followed human rights based and Gender equality and social inclusion (GESI) approach through which it has prioritized female farmers and farmers from marginalized groups in all its interventions- such as participation in training and internship, emphasizing women empowerment through increased access to income and overall, ensuring GESI through the policy provisions. The UNDP Strategic Plan 2018-2021 commits to the principles of universality, equality and leaving no one behind. It focuses on strengthening gender equality and the empowerment of women and girls among other solutions to better respond to development settings i.e. poverty reduction, structural transformation for sustainable development, and resilience building to shocks and crises. The project has mainstreamed GESI into all stages and activities. The project has collected disintegrated data of all the project intervention and outcomes.

As mentioned in the secondary data, the program has given first priority to women and socially disadvantage groups in all steps of the program. While designing the program it has identified women and socially disadvantage groups as the main target population. Before implementation, data collection and series of consultations were made to identify women, indigenous people and those from socially disadvantaged groups from the program areas and analyzed their different needs and gaps so that program interventions benefit them equally. Field survey shows that program have given special consideration to women, Dalits and disadvantaged groups while providing business services and loans. Cooperatives provided special emphasis in their engagement.

Below tables explains the caste wise beneficiaries of the program.

Table 11: Caste wise beneficiaries of the program

S. No.	Number			Percentage		
	Male	Female	Total	Male	Female	Total
Brahmin Chetri Thakuri	3798	4553	8351	45.48	54.52	45.54
Dalit	433	764	1197	36.17	63.83	6.53
Simantakrit	1	1	2	50.00	50.00	0.01
Gharti	3	3	6	50.00	50.00	0.03
Janajati	3152	4226	7378	42.72	57.28	40.23
Muslim	2	3	5	40.00	60.00	0.03
Newar	0	3	3	0.00	100.00	0.02
Others/ Not Mentioned	551	829	1396	39.47	59.38	7.61

According to ethnic composition, apart from 45.54% of Brahmin, Chetri and Thakuri; Janajatis (40.23%) are major in the beneficiary which is followed by Others (7.61%), and Dalits (6.53). The data provided by VCDP indicates support of differently abled persons through technology and input support. Overall support provided to differently abled persons by the project by districts is given in Table 12.

Table 12: Support provided to differently abled persons

District	Number			Percentage
	Male	Female	Total	
Chitwan	2	0	2	0.66
Makawanpur	2	3	5	1.66
Nawalparasi	7	3	10	3.32
Tanahun	30	12	42	13.95
Kavrepalanchowk	134	86	220	73.09
Syangja	8	5	13	4.32
Dhading	0	1	1	0.33
Kaski	4	4	8	2.66
			301	100.00

7. Conclusion

The VCDP project judiciously used resources to combat the impact of COVID-19 and gained momentum in the later stage of project implementation. The project effort was encouraging to reach 18420 beneficiaries against initially targeted to reach 10,000 smallholder farmers. the project could reach 18,420 farmers and was able to spend 96% budget by 15 December 2022. Within the given resource, the project should have concentrated activities in fewer pockets to develop them as model for neighboring pockets. This could be commodity specific pocket.

The overall design and approach of the project is relevant as the project puts smallholder farmers producing fruits and vegetables and associated value chain actors at central. Partnership with private sector is lacking in the project design.

VCDP intervention was found sufficiently fitted in a changed context and economic crisis during COVID-19 outbreak and in changed administrative structure of the government.

The project has well addressed the impeding factors. The monitoring arrangement was effective. The project has been significantly effective in enhancing the capacity of local partners and the institutions to create an enabling environment for value chain development and in creating employment and income opportunities to the local people particularly, migrant returnees including women and marginalized groups.

The project benefits are likely to be sustained. The project has greatly capacitated local government, cooperatives, market centers, farmer's groups and technicians for value chain development of fruits and vegetables generating well equipped infrastructure, skilled manpower and institutions which greatly contributing in sustainability even after the completion of the project. Similarly, development of partnership among different stakeholders including local government, cooperatives, research centers and universities has huge potential for contributing in sustainable agriculture development at local level given their contextual relevance and complement to the national priority of agriculture development.

The program highly contributed to resilient and inclusive economic recovery. The technical, financial, input and infrastructure support provided by the project enabled citizen's trust in local government and project intervention. The partnership with different organizations has significant positive impact on project achievement. With the adoption of GESI and human rights based approach in the design and implementation of the project, the efforts have been made to benefit women and people from marginalized groups even though most of these inclusion are limited to participation only. The project has promoted all the groups-women, marginalized, differently abled person and migrant returnees for income generating activities associated with the project scope.

8. Recommendations

Some of the key recommendations for future projects of this nature are:

- (i) However, more beneficiaries were reached through the project, the intervention was found bit scattered to bring the visible impact. With the available resources, few pockets should be intensively developed as model pocket to produce snowball effect on the neighboring community.
- (ii) Dedicated program for vulnerable groups (women, Dalits and marginalized) should be designed and implemented rather than ensuring their participation and inclusion. Approaches such as couples training, flexible venue and timing of training for women, involvement of both men and women in all the value chain development work, development of market linkages of women shall be adopted to increase women's involvement in every phase of the project and engaging them in each step of the agriculture value chain.
- (iii) Post-harvest training should be provided not only to the farmers but also to market level stakeholders such as traders who buy fruits from orchard, transporters who carry fruits and vegetables from farm gate to collection centers or wholesale market and fruits and vegetable store operators.
- (iv) With the global emergence of e-commerce practices and our own lessons from program implementation during COVID-19, marketing of fruits and vegetables should adopt e-commerce modality and train the market actors on the e-commerce.

9. Lessons learned

Following lessons were learned from this project.

- (i) Project helped Palikas (local governments) to fix minimum support price of fruits and vegetables. This was the new practice so far. Providing fund to top-up the difference in sell price and the support price (in case price falls below the support price) was a great incentive to the farmers.
- (ii) Farmers' diary maintenance for record keeping of the overall production economics if managed properly helps farmers decide production and sale of commodities.
- (iii) Concept of agricultural ambulance or transport support is all time necessary for perishable commodities like fruits, vegetables and fish.
- (iv) Projects should provide intensive program in the project area. Distributing small number of inputs and scattered support services and structures cannot generate impact on the community. Alternately, few pockets should be developed concentrating activities so that beneficiaries around also feel the difference of project intervention.

Annexes

Annex 1: Terms of Reference

Terms of Reference

Final evaluation

Value Chain Development of Fruit and Vegetables in Nepal Project (VCDP) United Nations Development Programme/MOALD

1. BACKGROUND

Nepal's agriculture shows weak growth rates with low productivity. Marketed volumes of fruit and vegetables are low, and farmers have limited access to agricultural technologies. Postharvest losses of fruit and vegetables are high by volume in specific commodities, with rates slightly higher for fruit than for vegetables. This leads to lower returns through revenue foregone, as well as higher costs of transportation and marketing. The postharvest losses start from farmers' field with harvesting time, the harvesting methods, rough handling, exposure to sun and rain, and poor packaging and transportation. With these facts, the Ministry of Agriculture and livestock Development (MoALD) with Korea International Cooperation Agency (KOICA) and United Nations Development Programme (UNDP) launched the Value Chain Development of Fruit and Vegetables in Nepal (VCDP) on 29 June 2018 with a total budget of USD 5.5 million. The project is ending on 31st December 2022. It aims to increase incomes of 10,000 smallholder farmers of 37 rural/municipalities aside BP Highway and Prithvi Highway extending to Syangja and Hetauda-Dumkibas section of the East-West Highway in Bagmati and Gandaki provinces. The project detail is summarized in below table.

PROJECT INFORMATION		
Project title	Value Chain Development of Fruit and Vegetables in Nepal (VCDP)	
Atlas ID	0095359	
Corporate outcome and output	UNDAF/CPD Outcome 1: By 2022, impoverished, especially economically vulnerable, unemployed and under-employed and vulnerable people, have increased access to sustainable livelihoods, safe and decent employment and income opportunities. CPD Output 1.1: Policy, institutional and capacity development solutions lead to improved disaster and climate resilient livelihoods, productive employment and increased productivity in rural areas.	
Country	Nepal	
Region	Asia Pacific	
Date project document signed	29 June 2018	
Project dates	Start	Planned end
	29 June 2018	31 December 2022

Project budget	USD 5,500,000
Project expenditure at the time of evaluation	
Funding source	KOICA: \$5,000,000 and UNDP: \$500,000
Implementing party	Ministry of Agriculture and Livestock Development (MoALD)

Implementation approach

The pathway to change is proposed with the crop productivity enhanced, postharvest losses reduced, and local market linkage improved, responding to the interest of the Government of Nepal's Agriculture Development Strategy in developing competitive and inclusive value chains of priority commodities. Project activities also collectively contribute to the UN Development Assistance Framework (UNDAF) and UNDP's CPD Outcome 1 (inclusive economic growth), and SDG 1 (End poverty) and SDG 2 (Zero hunger).

Partnerships

The project is being implemented in 37 municipalities by the Ministry of Agriculture and Livestock Development (MoALD) with financial support from Korea International Cooperation Agency (KOICA), and United Nations Development Programme (UNDP). The project has established partnership with the Nepal Agricultural Research Council (NARC) for postharvest management technology development and upscaling. It also signed a MOU with Institute of Agriculture and Animal Sciences (IAAS) of Tribhuvan University and Agriculture and Forestry University (AFU) to bring graduate students as project interns for technical support provision at local level and also for post-graduate thesis research. For project sustainability and enhanced visibility, it also works with Agriculture Information and Training Centre (AITC) to generate and manage knowledge products. The project detail is summarized in below table.

Beneficiaries

Project's target beneficiaries are 10,000 smallholder farmers growing fruit and vegetables in target areas, 20 collection centres and satellite markets, cooperative operators, extension workers, and private extension providers.

Target commodities

Targeting commodities are fruit and vegetables including tomato, cauliflower, cabbage, capsicum, cucumber, radish, potato, onion, garlic, carrot, banana, citrus (mandarin, sweet orange and lime), papaya, pineapple, and watermelon.

Project outcomes and outputs

The project has aimed to achieve the following three outcomes at the end of the project period i.e. December 2022.

Project Outcomes	Outcome Indicator	Baseline (2019)	Target (2022)
Outcome 1: Improve agricultural activity through increased capacity of government agencies and better access to production technology by farmers	<ul style="list-style-type: none"> % increase in gross margin of selected commodities 	<ul style="list-style-type: none"> NPR 278,395.7 	<ul style="list-style-type: none"> 15% increase
Output 1.1: identify potential fruit and vegetables production pockets and conduct gross margin analysis.	<ul style="list-style-type: none"> % increase in yield of average crops 	<ul style="list-style-type: none"> 14.3mt/ha 	<ul style="list-style-type: none"> 20% increase

Output 1.2: improve access to production technology Output 1.3: Combat impact of C19 through agricultural production and marketing support			
Outcome 2: Reduce postharvest losses of selected fruit and vegetables by postharvest technology development Output 2.1: strengthen the capacity of the Nepal Agriculture Research Council Output 2.2: develop postharvest losses reduction management technologies by the Nepal Agriculture Research Council (NARC) Output 2.3: transfer postharvest technology to farmers with improved access to input support	<ul style="list-style-type: none"> % decrease in postharvest losses occurring from farm to collection centre and wholesale markets by volume 	<ul style="list-style-type: none"> Vegetable: 20.7%; fruit: 26.4% 	<ul style="list-style-type: none"> 5% reduction of each
Outcome 3: Better market linkage at local level Output 3.1: improve functions of collection centres Output 3.2: promote market information system	<ul style="list-style-type: none"> % increase in the volume of commodities traded at collection centres and markets 	<ul style="list-style-type: none"> 2,747mt 	<ul style="list-style-type: none"> 40% increase

Major achievements

As of 31 July 2022, a total of 12,596 farmers (58% female, 51% from minority groups) got empowered for better livelihood. They received training on optimal farm practices; received input supports such as seed, fertilizer, and pesticides; and had access to better market facility. This has increased the vegetable yield from 14.3mt/ha in 2019 to 17.3mt/ha in 2021. The project in partnership with Nepal Agricultural Research Council developed, verified and disseminated proven postharvest reduction technologies to extension workers and farmers, leading to a reduced physical loss of vegetables after harvesting from 20.7% to 16.9%. Focused interventions on cooperative capacity development translated into the increase of traded volumes at cooperative and market centres from 2,747mt to 3,575mt.

The project introduced distance extension services using ICT equipment. In partnership with local FM radio stations and local governments, it disseminated agriculture information through radio programs in Bharatpur, Putalibazar, and Sindhuli Madhi. About 1,215,000 households were able to get farming information. The project also initiated a Kisan (farmer) call centre at Phedikhola of Syangja and Ratnanagar of Chitwan to provide a platform where farmers can get information about disease and production by one call. Over 500 farmers in Syangja have contacted the call centre to get information since February 2021.

COVID19 context

As of 10 July 2022, Nepal has 11,20,956 confirmed cases of COVID-19. Out of total confirmed cases, 11,952 have passed away. The case fatality rate is 1.2%. Most of these cases were recorded during the second wave between July-August 2021 and the third waves of the pandemic which hit Nepal in January 2022, with fast rise in number of cases in the beginning and gradual decline after March and April. During the Covid-19 pandemic, the project repurposed its activities and initiated relief and recovery activities for farmers. The project provided protective materials to extension workers and farmers; and released a Farmer Relief Fund to local governments to continue necessary support for production and

marketing. In consultation with local governments, the project helped 69 migrant returnees to become agri-entrepreneurs with planning, technical, and equipment support. After a year of intervention, they managed to earn NPR 70,000-270,000 (\$593 - \$2,288) by producing tomatoes and other high value crops. An agri-ambulance was mobilized to continue vegetable transportation during lockdown, which was introduced as innovative approach in local media.

2. EVALUATION PURPOSE, SCOPE, AND OBJECTIVES

Purpose and objectives

The overall objective of the final evaluation is to assess the results achieved and lesson learnt by the project during its implementation. The evaluation should provide an impartial review of the project in terms of relevance, effectiveness, coherence, efficiency, impact, and sustainability. The results information generated by the evaluation will be used by the various audiences including UNDP, KOICA, MoALD and other development partners.

The specific objectives of the evaluation are the following:

- Assess the implementation approaches, results against its outcome and outputs targets, contributing to higher level results
- Assess the effectiveness of the project activities provided to smallholder farmers and local partners such as local governments, cooperatives, and local service providers in increasing incomes and strengthening the horticulture value chains
- Assess engagement of local partners such as local government, NARC, cooperatives, agribusiness organizations and other actors along the value chains
- Identify challenges encountered and document the lessons learnt and good practices to be replicated in future programming
- Assess to what extent the project has addressed gender considerations and promoted gender equality and social inclusion through its implementation
- Review and assess the risks and opportunities (in terms of resource mobilization, synergy and areas of interventions) directly linked to the Project
- Provide forward looking recommendations for the sustainability of the project results and its potential scalability in the current context of COVID-19 crisis and socio-economic response efforts.

Scope of the evaluation

The final evaluation should assess the project's relevance, quality of project design, effectiveness and efficiency of the implementation as well as impact and sustainability of the project results. The evaluation will cover the project period between July 2018 and September 2022. The evaluation covers all implementing eleven districts. The evaluation should cover but not limited to the following areas.

- Relevance of the project: review the project's relevance during changed context; assess the ToC and results that were relevant and aligned with national priorities and responding to the needs of the stakeholders; consideration of gender mainstreaming in design etc.
- Effectiveness of the project: review project's technical as well as operational approaches, the project's results against project outputs and contribution to outcome level results as defined in the project's theory of change and ascertain the end results (values) in comparison to the baseline. Identify any other intended or unintended, positive, or negative, results covering assumptions and risks, the partnerships established, as well as issues of capacity.
- Assess the management and governing structure of the project and distribution of responsibilities within the given structure and direct implementation modality.

- Efficiency of the project: assess overall planning, management, monitoring and quality assurance mechanism including governance structure for the delivery of the project interventions.
- GESI: Review the project's approaches in general including mainstreaming of gender equality and social inclusion, with focus on women and marginalized groups.
- Sustainability and scalability: Review and assess the sustainability of the results and risks and opportunities (in terms of resource mobilization, synergy and areas of interventions) related to future interventions.
- Review external factors beyond the control of the project like COVID-19 that have affected it negatively or positively.
- Review coordination and communication processes and mechanisms with the stakeholders.

3. Evaluation criteria and key questions

The evaluation will follow the Organization of Economic Cooperation Development (OECD) Development Assistance Committee (DAC)'s evaluation criteria – relevance, coherence, effectiveness, efficiency, impact and sustainability. Gender Equality and Social Inclusion (GESI) and human rights will be added as cross cutting criteria. The major question to be answered by the evaluation is 'What are after project possible interventions and general recommendations which could ensure sustainability and scaling up of the project achievements?'

The guiding questions for each evaluation criteria are outlined below which should be further refined by the consultant and agreed with UNDP before commencement of the evaluation.

Guiding Questions

i. Relevance

- How relevant were the overall design and approaches of the project? To what extent was the theory of change presenting a relevant and appropriate vision on which to base the initiatives?
- To what extent the project was able to address the needs and priorities of the target groups and communities in the crisis context and changing conditions? To assess whether the results achieved had a differentiated impact on women and other vulnerable groups?
- To what extent did the project contribute to the national policies and strategies such as Agriculture Development Strategy, and global/regional strategies and policies?
- To what extent the reprogramming of project activities for immediate COVID-19 response are relevant to meet the local needs?
- To what extent are human rights and gender equality and social inclusion were considered in the project design?

ii. Effectiveness

- To what extent were the output level results achieved and how did the output results contribute to project outcomes? Does the project contribute to the outcome and output of the UNDP Country Programme Document? Were there any unintended positive or negative results?
- What are the key internal and external factors (success & failure factors) that have contributed, affected, or impeded the achievements, and how the project and the partner have managed these factors?
- Whether the results achieved had a differentiated impact on women and minority groups?
- To what extent have monitoring arrangements been effective and supported adaptive management? What were the lessons and how were feedback/learning incorporated in the subsequent process of planning and implementation?
- How effective has the project been in enhancing the capacity of local partners to create enabling environment for value chain development?
- To what extent did the project contribute to the UNDP Country Programme Document outcome and outputs, the SDGs, the UNDP Strategic Plan and national development priorities such as Agriculture

Development Strategy?

- To what extent the project was successful to create employment and income opportunities to the local people?

iii. *Coherence*

- How well the intervention fit in changed context?
- To what extent the intervention is coherent with Government's policies
- To what extent the intervention addressed the synergies and interlinkages with other interventions carried out by UNDP or Government of Nepal? (Internal coherence)
- To what extent has the project been successful in ensuring complementarity, harmonization and coordination with other relevant interventions of the governments and donors, avoiding duplication of efforts and adding value? (external coherence)

iv. *Efficiency*

- To what extent the project activities were delivered efficiently in terms of quality, quantity and timing?
- Have resources (financial, human, technical) been allocated strategically and economically to achieve the project results? Were the project activities implemented as scheduled and with the planned financial resources? Is the relationship between project inputs and results achieved appropriate and justifiable?
- To what extent was the existing project management structure appropriate and efficient in generating the expected results?
- To what extent had the project implementation strategy and execution been efficient and cost-effective? What cost effectiveness measures had the project adopted?
- Has the communication and outreach of the project been efficient and satisfactory?
- How does partnership with local partners including local governments, cooperatives, farmers' association and other actors along the value chain? Does it create synergies or difficulties? What type of partnership building mechanism is necessary for future partnership?

v. *Sustainability*

- To what extent are the benefits of the projects likely to be sustained after the completion of this project?
- What are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes and the potential for replication of the approach?
- Are there sufficient government and stakeholder awareness, interest, commitment and incentives to utilize the tools, approaches and materials the project developed?
- How were capacities strengthened at the individual and organizational level (including contributing factors and constraints)?
- To what extent are developed postharvest technologies likely to be adopted after the completion of the project?

vi. *Impact*

- What is the project impact in qualitative as well as quantitative terms from a broader development and system building perspective? What would the development have been look like without the project interventions in the area of concern?
- What are the positive or negative, intended or unintended, changes brought about by the project's interventions?
- How have cross cutting issues, such as gender equality and reaching the most vulnerable, have been effectively taken up?
- To what extent has the support enabled citizen's trust in local government and its systems, particularly

those of women.

- What is long term project influence on agriculture value chain development in Nepal?

vii. Gender equality and Social Inclusion

- To what extent have issues of gender and marginalized groups been addressed in the design, implementation and monitoring of the project?
- To what extent the project approach was effective in promoting gender equality and social inclusion - particularly focusing on women and socially disadvantaged groups?
- To what extent had the project promoted positive changes in women and marginalized groups including persons with disabilities? Were there any unintended effects?

viii. Human rights

- To what extent have Dalit, ethnic minorities, women and other disadvantaged and marginalized groups benefitted from the work of the project and with what impact?
- To what extent have project integrated Human Rights based approach in the design, implementation and monitoring of the project? Have the resources been used in an efficient way to address Human Rights in the implementation (e.g. participation of targeted stakeholders, collection of disaggregated data, etc.)?

4. Methodology

The evaluation methods provided here are indicative only. The consulting firm should propose a detail methodological framework in the inception report. During the entire evaluation process, the firm shall comply with the UNEG Ethical Guidelines for Evaluation and respect confidentiality of information providers. The evaluation activities shall be based on UNDP evaluation principles, norms and standards that are outline in the UNDP Evaluation Guidelines (2019).

The evaluation should undertake a quantitative and qualitative assessment. The evaluation will assess the progress against baseline value of indicators to compare results in the given period of time. The firm will be responsible for designing and conducting the gender-sensitive evaluation including proposing appropriate methodology, designing tools, developing questionnaires, and other instruments for data collection and analysis. The consultant is responsible, but not limited to:

- Desk study and review of all relevant project documentation including project document, annual work plans, project progress reports, progress against output and other results indicators with baseline value, quarterly progress reports, annual project reports, minutes of the Project Board, and financial statements.
- In depth interviews to gather primary data from key stakeholders using a structured methodology
- Focus Group discussion/consultation with project beneficiaries and other stakeholders like UNDP Country Office, Project team, Ministry of Agriculture and Livestock Development, KOICA, Nepal Agricultural Research Council, local partners along the value chain such as Palikas, cooperative, and market centres in project areas.
- Field observations, interactions, interviewed (structured, semi-structured), and consultation with project beneficiaries. The evaluator will carry-out necessary field visits using checklists which have been pre-approved by the office as part of the Inception Report and ensuring that all beneficiaries are adequately covered.
- Sample survey should be conducted with a reasonable and statistically meaningful sample size in each project areas and crops. Farmers, cooperative members, market operators, and local traders should be interviewed.
- Briefing and debriefing sessions will be organized.
- The evaluator should ensure triangulation of various data sources to maximize the validity and reliability of the data. Analysis leading to evaluate judgement should be clearly spelled out. The limitations of the methodological framework should be also spelled out in the review reports.

- In addition, any necessary methodologies for ensuring that the evaluation addresses the needs of vulnerable groups as identified in the project document, employs a rights-based approach and takes questions around gender into consideration.

5. **Evaluation products (key deliverables)**

The firm should submit the following deliverables in line with IEO's guidelines:

Key deliverables	Timeline	Remarks
<ul style="list-style-type: none"> • Inception report detailing the reviewer's understanding of what is being evaluated, why it is being evaluated, and how (methodology) it will be evaluated. The inception report should also include a proposed schedule of tasks, evaluation tools, activities, and deliverables. • Evaluation matrix that includes key criteria, indicators, and questions to capture and assess them. 	6 days after signing the contract	Evaluation Manager should approve the inception report along with evaluation matrix
<ul style="list-style-type: none"> • Evaluation debriefing- immediately after completion of data collection, the evaluator should provide preliminary debriefing and findings to the UNDP 	After completion of the data collection	
<ul style="list-style-type: none"> • Draft Evaluation report for review and comments 	7 days after completion of data collection	Evaluation manager should share the draft report with relevant stakeholders and provide consolidated feedback to the evaluator.
<ul style="list-style-type: none"> • Final report along with clean data within stipulated timeline with sufficient detail and quality by incorporating feedback from the concerned parties. • Evaluation Audit Trail – The comments on the draft report and changes by the evaluator in response to them should be retained by the consultant to show how the comments were addressed. • An exit presentation on findings and recommendations. 	5 days after receiving the comments from stakeholders	Final Report will be signed off by DRR

6. **Evaluation team composition and required competencies**

The contracted organization and its relevant staff members should comprise of reasonable number of experts having proven track record in designing and conducting evaluation, socio-economic research, baseline and endline studies. The proposed team should have a good depth of understanding of value chains, with expertise in agriculture interventions in horticulture, extension services, and postharvest management of fresh produces. Moreover, they should be technically sound for conducting evaluation independently. They should possess significant experience conducting evaluation or research in the Nepalese context. Furthermore, the team should comprise members with significant technical experience in monitoring and evaluation and project management. The contracted organization should have the capacity to deliver quality services in a timely, professional manner. The project team should have excellent oral and written fluency in English and Nepali.

It is advised that following experts be made available for the study.

- Team leader– 1
- Horticulture expert – 1
- Agriculture economist – 1
- GESI expert-1
- Data analyst (part time as needed) – 1

- Enumerators as needed

Position	Qualification	Experiences
Team leader	At least Master's degree in agriculture related discipline.	<ul style="list-style-type: none"> • 10 years of professional experience in designing and conducting rigorous project assessments with both desk and field research for agriculture projects in Nepal • Demonstrated experience working in national governments, INGOs, donors, communities, and diverse stakeholder groups • At least 5 listed projects undertaking similar assignments with description of work and specific roles • Demonstrated knowledge of value chain on agriculture commodities • Proof of experience in applying or engaging in community participatory approaches. Strong knowledge of federalization and proof of experience working with local governments. • Demonstrated experience leading field and/or research teams • Experience working in monitoring and evaluation Strong understanding on gender empowerment and social inclusion and human rights-based approach. • Strong understanding of and experience working with Government Projects and UN agencies in Nepal desirable
Horticulture expert	Master's degree in Horticulture	<ul style="list-style-type: none"> • 8 years of professional experience • At least 3 listed projects undertaking similar assignments with description of work and specific roles • Demonstrated knowledge of horticulture and value chain • Proof of experience in applying or engaging in community participatory approaches
Agriculture economist	Master's degree in agricultural economics (preferably, marketing and value chain)	<ul style="list-style-type: none"> • 8 years of professional experience • At least 3 listed projects undertaking similar assignments with description of work and specific roles • Demonstrated knowledge of agriculture economics and value chain development • Proof of experience in applying or engaging in community participatory approaches
GESI expert	At least Master's degree in Gender studies, Sociology, Development studies or other relevant field	<ul style="list-style-type: none"> • At least 5 years of professional experience in gender and inclusion-sensitive programming • Conducting similar assignments of at least 3 projects • Knowledge of agriculture economics and value chain development • Knowledge of gender sensitive evaluation
Data analyst (part time as needed)	Master's degree on statistics or economics or biometrics	<ul style="list-style-type: none"> • 5 years of professional experience • At least 3 listed projects undertaking similar assignments with description of work and specific roles • Demonstrated knowledge of value chain on agriculture commodities • Strong statistical skills and knowledge and experience of using data management software such as SPSS, STATA
Enumerators	B.Sc. in agriculture	<ul style="list-style-type: none"> • Demonstrated knowledge of value chain on agriculture commodities Experience in applying or engaging in data collection

7. Evaluation ethics

The evaluation will be conducted in accordance with the principles outlined in the UN Evaluation Group 'Ethical Guidelines for Evaluation.' The consultations must safeguard the rights and confidentiality of

information providers, interviewees, and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The consultant must also ensure security of collected information beforehand and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other users without the express authorization of UNDP and partners. Consultations will be held to the highest ethical standards and are required to sign a Code of Conduct upon acceptance of the assignment.

8. Management and implementation arrangement

The principal responsibility for managing the evaluation resides with the UNDP Nepal. The UNDP Nepal will contract the research agency and will ensure the timely implementation of the evaluation. The team leader will directly report to Evaluation Manager i.e. Result-Based Management (RBM) Analyst for the assignment. The Evaluation Manager (RMB Analyst) will assure smooth, quality, and independent implementation of the evaluation with needful guidance from UNDP senior management. The project team will provide required information for evaluation in leadership of Portfolio Manager. The project team will arrange all the field visits, stakeholder consultations and interviews as needed.

The details of the implementation arrangement are described in below table.

Who (Responsible)	What (Responsibilities)
Evaluation Manager/RBM Analyst	<ul style="list-style-type: none"> Assure smooth, quality and independent implementation of the evaluation with needful guidance from UNDP's Senior Management. Prepare and approve ToR and selection criteria. Hire the research agency by reviewing proposals and complete the recruitment process. Ensure the independent implementation of the evaluation process. Approve each step of the evaluation Supervise, guide and provide feedback and comments to the evaluation consultants. Ensure quality of the evaluation. Ensure the Management Response and action plans are fully implemented
Portfolio Manager- Inclusive Economic Growth	<ul style="list-style-type: none"> Draft ToR to be reviewed and provided inputs to be finalized by the evaluation manager Support in hiring the consultant Provide necessary information and coordination with different stakeholders including donor communities Provide feedback and comments on draft report Prepare management response and action plan and follow up the implementation
Project Team (VCDP)	<ul style="list-style-type: none"> Provide required information, furnishing documents for review to the consultant team. Logistic arrangement, such as for support in setting up stakeholder meetings, arranging field visits and coordinating with the Government.
Evaluation team/Research agency	<ul style="list-style-type: none"> Review the relevant documents. Develop and submit a draft and final inception report Conduct evaluation. Maintain ethical considerations. Develop and submit a draft evaluation report Organise meeting/consultation to discuss the draft report Incorporate inputs and feedback in draft report Submit final report with due consideration of quality and effectiveness Organise sharing of final evaluation report
Stakeholders	<ul style="list-style-type: none"> Review draft report and provide feedback Participate in debriefing session and provide suggestions

The evaluators will be briefed by UNDP upon arrival on the objectives, purpose and output of the

evaluation. An oral debriefing by the evaluator on the proposed work plan and methodology will be done and approved prior to the commencement of the process.

The evaluation of VCDP will remain fully independent. The evaluators maintained all the communication through the Evaluation Manager during the implementation of the evaluation. The Evaluation Manager should clear each step of the evaluation. Evaluation report must meet the requirements from the Independent Evaluation Office's guidelines which will be provided as part of the inception meeting.

Contractors will arrange mission wrap-up meeting with the stakeholders and noted comment from participants which will be incorporated in the final report.

The final report will be signed off by Deputy Resident Representative of UNDP Nepal.

9. Timeframe for the evaluation

The evaluation is expected to start in September for an estimated duration of 40 working days. The total duration of experts (excluding data collectors for sample survey) should not exceed 70 person days. The team leader is solely responsible for division of work among team members that needs to be included in inception report. The timeline for final report submission will be consulted with UNDP.

Planned Activities	Tentative working	Remarks	Payment
Desk review and preparation of design (home based)	3 days		
Finalizing design, methods & inception report and sharing with stakeholders for feedback (home based)	5 days	UNDP needs at least 5 days to review and provide feedback on the inception report	20% of the total contract cost upon approval of the inception report
Stakeholders' meetings, interviews (Virtual and/or field base) and Household Survey	20 days		30% of the total contract cost upon completion of data collection
Analysis, preparation of draft report and shares for review	5 days	UNDP needs at least 10 days to	
		review and finalize the report	
Presentation of findings for concerned	1 day		
Incorporate suggestions and comments to finalize the report and submit final report to UNDP	6 days	Multiple rounds of feedback need to be addressed before finalization of the report	50% of the total contract cost upon approval of final report
Total	40 days		

10. Use of evaluation results

The findings and recommendations of this final evaluation will be used to analyze the lessons learned and the way forward for the future design of the similar projects. Therefore, the final evaluation report should provide critical findings and recommendations for future interventions.

11. Annexes

- (i) List of documents for review
- (ii) Reporting structure
- (iii) List of key agencies, stakeholders and partners for evaluation
- (iv) Evaluation matrix
- (v) Inception Report Contents
- Outline (vi) Evaluation Audit Trial
- Form (vii) Code of Conduct

Annex 2: References

- Acedo, A.L.Jr; M.A. Rahim; B.Buntong and D.M. Gautam 2016. Vegetable packhouse for small farmers (A training manual published in English, Nepali, Bangali and Khemer language in Nepal, Bangladesh and Cambodia). USAID/AVRDC Program, Asia 35p
- Bastakoti, Nagendra (2019). Gross margin analysis of fruits and vegetable, Final report submitted to VCDP
- Gautam DM, Bhattra DR and Acharya U, (2018). Postharvest management of horticultural crops in Nepal. Accessed from https://www.researchgate.net/publication/336159585_Postharvest_horticulture_in_Nepal
- Office of the Auditor General of Nepal (2020). Financial Audit Report of Value Chain Development of Fruit and Vegetables in Nepal Project (VCDP).
- Sapkota et. al. Report on socio-economic assessment of post-harvest loss of fruits and vegetables in Bagmati and Gandaki province, VCDP, United Nations Development Programme (UNDP), Nepal
- UNDP (2018). Value Chain Development of Fruit and Vegetables-Project Document.
- UNDP (2019). Field Study on Pocket Area Identification, Baseline Assessments of Crops and Socioeconomic Study, United Nations Development Programme, UN House, Lalitpur, Nepal, 2019
- UNDP (2021). Orientation on gender equality and social inclusion. Presentation slides.
- UNDP, 2019 Field study on Pocket area Identification, Baseline Assessments of crops and socio-economic study. United Nations Development programme Nepal
- UNDP, KOICA and GoN (2018). Value chain Development of Fruit and Vegetables in Nepal- Annual report UNDP,
- UNDP, KOICA and GoN (2019). Value chain Development of Fruit and Vegetables in Nepal- Annual report UNDP,
- UNDP, KOICA and GoN (2020). Value chain Development of Fruit and Vegetables in Nepal- Annual report UNDP,
- UNDP, KOICA and GoN (2021). Value chain Development of Fruit and Vegetables in Nepal- Annual report UNDP,
- UNDP, KOICA and GoN (2022). Value chain Development of Fruit and Vegetables in Nepal- Half yearly report UNDP,

Annex 3: Survey Tool Kit

Questionnaire for Fruits and Vegetable Producers (Household Survey)

फलफूल तथा तरकारी उत्पादक घरधुरी सर्वेक्षणका लागि प्रश्नावली

सहमति:

नमस्कार, मेरो नाम हो । हामी नेपाल सरकार, कृषि मन्त्रालय र UNDP को लागि PRISM CIL Pvt. Ltd. बाट यो सर्वेक्षण गर्न लागि रहेका छौं । यो सर्वेक्षणले यस क्षेत्रका फलफूल तथा तरकारी उत्पादक किसानहरुको उत्पादन, बजारिकरण तथा यससंग जोडिएका विषयहरुको बारेमा अध्ययन गर्दछ । यस सर्वेक्षणमा तपाईंको सहभागिता स्वैच्छिक छ । तपाईं कुनै प्रश्नको जवाफ नदिन पनि सक्नु हुन्छ र तपाईंले अन्तर्वार्ता कुनै पनि समयमा छोड्न सक्नु हुन्छ । तपाईंको सबै जवाफहरु गोप्य राखिनेछन् । सर्वेक्षणको वारेमा तपाईंले मसंग केही सोध्न चाहनु हुन्छ ? के तपाईं यो सर्वेक्षणमा भाग लिन मञ्जुर हुनु हुन्छ ?

Greeting, my name is This survey is conducted by Prism CIL on behalf of UNDP/MoALD. The main objective of this study is to assess the results and approaches of the project interventions from the start to date. The responses provided by you will be kept confidential and will only be used in analyzing the context. your participation will be voluntary and will not be forced. You can leave the interview in any time. Prism CIL and UNDP are very thankful to you for supporting us in filling this form.

अन्तर्वार्ता दिन मञ्जुर गरेमा अगाडी बढ्नु होस्
Agreed to be interviewed, proceed further

मञ्जुर नगरेमा
Not agreed

अन्तर्वार्ता नलिनु होस्
Do not interview

प्रश्नावली नम्बर: Questionnaire No.	A.		
सर्वेक्षकको नाम: Interviewers Name	B.	तथ्यांक संकलन मिति: Date:	
जिल्ला: District :	स्थानीय तहको नाम: Municipality	वडा: Ward	टोल: Tole
उचाई Elevation	मोहडा: Face		

१. परिचय

1. Introduction

१.१ तपाईं कुन कुन फलफूल तथा तरकारी व्यवसाय उत्पादन, ग्रेडिङ तथा विक्री) मा संलग्न हुनुहुन्छ ?) बहु उत्तर(1.1 Out of following, which crops you engaged in production, grading and sale (Multiple Answer)

क) फलफूल

Fruits

१. केरा २. कागती ३. जुनार ४. सुन्तला ५. मेवा ६. भुईँकटहर ७. तरबुजा
1 Banana 2. Lime 3. Sweet Orange 5. Orange 6. Pineapple 7. Watermelon

ख) तरकारी

Vegetables

८. काउली ९. बन्दा १०. भेंडे खुसानी ११. गोलभेंडा १२. काँक्रो १३. मुला १४. आलु १५. प्याज १६. लसुन १७. गाँजर
8. Cauliflower 9. Cabbage 10. Capsicum 11. Tomato 12. Cucumber 13. Radish 14.

Potato 15. Onion 16 Garlic 17. Carrot
१.२ घरधुरीको जाति समूह: दलित जनजाति ब्राम्हण/क्षेत्री/ठकुरी मधेसी मुस्लिम नेवार अन्य
1.2. Ethnicity/Caste of house: 1. Dalit 2. Janajati 3. Brahmin/ Chhetri/ Thakuri 4. Madhesi 5. Muslim 6. Newar 7. Others
१.३. घरमुलीको विवरण
1.3 Description of House head:
नाम:
Name:
लिङ्ग: पुरुष महिला
Gender: Male Female

२. उत्तरदाताको विवरण:

2. Description of Respondents

२.१ उत्तरदाताको पुरा नाम:	
2.1 Full Name of Respondent	
२.२ उत्तरदाताको लिङ्ग:	२.३ सम्पर्क फोन नं.(मोबाइल/टेलिफोन):
2.2 Gender of Respondent	2.3 Contact No. Respondent
२.४ बस्ती/पकेट क्षेत्रको नाम:	
2.4 Settlement/ Pocket Name:	
२.५ कृषि समुहमा आवद्धता:	२.५.१ यदि छ भने समुहको नाम:
2.5 Member in Agriculture Group	2.5.1 If Yes, name of the group
क) छ ख) छैन	
a) Yes b) No	
२.६ सहकारीमा आवद्धता: क) छ ख) छैन	२.६.१ यदि छ भने सहकारीको नाम:
2.6 Member in Cooperative	2.6.1 If Yes, name of the cooperative
a) Yes b) No	
२.७ खाद्य सुरक्षाको अवस्था (आफ्नो उत्पादनले)	१. ३ महिना वा सो भन्दा कम खान पुग्ने
What is the status of food security? (of own production)	२. ३ महिनादेखि ६ महिनासम्म खान पुग्ने
	३. ६ देखि ९ महिना खान पुग्ने
	४. ९ देखि १२ महिना खान पुग्ने
	५. १२ महिना खान पुग्ने र बचत हुने (विक्रि गर्ने)
	i. 3 months or less than three month
	ii. 3 to 6 month
	iii. 6 to 9 months
	iv. 9 to 12 months
	v. 12 months secure and sell the excess

३. पारिवारीक विवरण:

Family details

३.१ परिवार सदस्य संख्या								
क्र.सं.	लिङ्ग	संख्या	साक्षर	निरक्षर	गाउँ बाहिर भएका	बिदेशिएका	घरमै रहेका	उमेर
S. No.	Gender	Number	Literate	Illiterate	Outside this district	Outside country	At home	Age
१	पुरुष Male							
२	महिला Female							

	जम्मा Total								
--	----------------	--	--	--	--	--	--	--	--

३.२ तपाईंको परिवारका कति जना सदस्यहरू खेतिपाती तथा कृषिमा आवद्ध हुनु हुन्छ ?
How many members are involved in agriculture?

लिंग Gender	निरन्तर (जना) Continuous (number)	आंशिक (जना) Partially (number)
पुरुष Male		
महिला Female		

४. भूस्वामित्व तथा कृषि उत्पादन

Land ownership and Agriculture production

४.१ तपाईंको परिवारसँग खेती योग्य जमिन छ ?

क) छ

ख) छैन

. Does your family have agriculturable land?

a. yes

b. no

यदि छ भने

If yes, please fill the following table,

क्र.सं.	जग्गाको किसिम	कोड	कुल खेती गरेको जग्गा		सिंचाईको अवस्था		
			रोपनी	कठ्ठा	छैन	बाह्र महिना	वर्षायाममा मात्र
S.N	Type of land	Code	Total agricultured land		Irrigation facility		
			Ropani	Katha	No	All year around	All year around
१	खेत Khet						
२	बारी Bari						
३	खर बारी/चरन Pasture land						
कुल Total							

४.२ तपाईंको परिवारले तरकारी तथा फलफुल खेतीको लागि जमिन (ठेक्का, अदिया, भाडामा, बन्दकी) लिएको छ ?

क) छ

ख) छैन

यदि छ भने

Do you take land from others to commercially cultivate fruit and vegetables?

a. no

b. yes if yes, please fill the following table:

क्र.सं.	जग्गाको किसिम	कोड	कुल खेती गरेको जग्गा		कस्तो प्रवन्ध १.अधिया २. ठेक्का ३. भाडा ४. वन्दकी ५.करारनामा
			रोपनी	कठ्ठा	
S.N	Type of land	Code	Total agricultured land		What type of arrangement?
			Ropani	Katha	
१	खेत Khet				
२	बारी Bari				

३	खर बारी/चरन Pasture land				
कुल Total					

४.३ तपाईले कमाएको जमिनमा गत बर्ष (२०७५ माघ देखि २०७९ माघ सम्म) के के खेति गर्नुभयो ?

Which crops you have cultivated last year (2075 Magh to 2079 Magh)

क्र.सं. S. No.	बालिहरु Crops	बालि लगाएको जग्गाको क्षेत्रफल Area		उत्पादन परिमाण (के.जी) Production (KG)	बिक्री परिमाण केजी Sales Quantity (KG)		बिक्रीमूल्य रु/केजी Sales Price Rs/ KG		बिक्रीबाट कूल आम्दानी (रु) Total Income from Sell (Rs)
		रोपनी Ropani	कठ्ठा Katha		स्तरिकरण नगरी विक्री	स्तरिकरण गरी विक्री	स्तरिकरण नगरीको	स्तरिकरण गरीको	
१	केरा Banana								
२	कागती Lemon								
३	जुनार Sweat Orange								
४	सुन्तला Organge								
५	मेवा Papaya								
६	भुईकटहर Pineapple								
७	खरबुजा Watermelon								
८	काउली Cauliflower								
९	बन्दा Cabbage								
१०	भेंडे खुर्सानी Capsicum								
११	काँक्रो Cucumber								
१२	गोलभेंडा Tomato								
१३	मुला Radish								
१४	आलु Potato								
१५	प्याज Onion								
१६	लसुन Garlic								
१७	गाँजर								

	Cabbage								
१८	अन्य Others								
खाद्यान्न बाली Food Grains									
१९	धान Paddy								
२०	मकै Maize								
२१	गहुँ Wheat								
२२	जौ, कोदो फापर आदि Others								

५. पशुपंक्षी सम्बन्धि विवरण (संख्या) Details of animals and birds (number)				
क्र.सं. S.No.	पशुपंक्षी (संख्या) Number	उन्नत जातको Improved	स्थानीय Local	जम्मा Total
१	भैसी Buffalo			
२	गाई गोरु Cow Ox			
३	भेडा बाख्रा Sheep Goat			
४	सुँगुर Pig			
५	हाँस/कुखुरा Duck/ Poultry			

६. पारिवारिक आम्दानी तथा खर्च विवरण Family income and expenses details									
६.१ तपाईंको परिवारको मुख्य आम्दानीका स्रोतहरु के-के हुन् ? What are the source of your family income?					६.२ तपाईंको खर्च हुने क्षेत्रहरु के-के हुन् ? What are the areas of expenses?				
क्र.सं. S.No.	कोड Code	आम्दानीका स्रोतहरु Source of income	कुल वार्षिक आम्दानी Total Annual Income		क्र.सं. S.No.	कोड Code	खर्च हुने क्षेत्रहरु Expenditure Area	कुल वार्षिक खर्च हुने रकम Total annual expenditure	D.
१		खाद्यान्न बिक्री Sales of Grains							
२		बाख्रा/खसी बिक्री Sale of Goat			१		शिक्षा Education		G.
३		अन्य पशु बिक्री (बाख्रा/खसी)			२		स्वास्थ्य Health		I.
					३		खाद्यान्न खरिद Food grains purchase		J.

		बाहेक) Sales of animals other than goat			४	लुगा खरिद Clothing		K.
	४	उद्यम व्यापार Business and trade			५	खेती खर्च All related to agriculture		M.
	५	ज्यालादारी काम Wages			६	ज्याला Wages		O.
	६	जागिर Service			७	चाडवाड खर्च Expenses related to festivals		Q. R.
					८	मनोरञ्जन Recreation		T.
	७	बैदेशिक रोजगारी Foreign Employment			९	उत्पादनशिल गाई, भैंसी, भेडा वाख्रा खरिद... Productive animal purchase		X.
	८	पेन्सन/उपदान Pension						
	९	फलफूल बिक्री Sales of Fruits						
	१०	तरकारी बिक्री Sales of Vegetables			१०	ट्र्याक्टर आदी खरिद Tractors and other purchase		BB.
	११	गैरकाष्ठ बन पैदावार बिक्री (जस्तै बाँस, अमिसो, जडिबुटि) Sales of Non-Timber Products			११	अन्य पूँजीगत खर्च Fixed assets purchase		DD.
						जम्मा खर्च Total Expenses		EE.
	१२	नगदे बाली बिक्री Sales of Cash Crops						
	१३	हाँस, कुखुरा, परेवा बिक्री Sales of Duck, Poultry						
	१४	अन्य Others						
		जम्मा आमदानी Total Income						

७. खेती सम्बन्धि जानकारी

7. Details about agriculture production

७.१ तपाईंले फलफूल तथा तरकारी खेती गर्ने VCDP लगायत अन्य कुनै संस्थाबाट सहयोग लिनु भएको छ ?

क) लिएको छु ख) लिएको छैन

1. Do you get supports from VCDP in production of fruits and vegetables?

a. yes b. no

७.३ यदि लिएको भए के कस्तो सहयोग ?

क) ऋण

What type of supports from which organization?

a. Loan

श्रोत	कोड	रकम	ब्याजदर (प्रतिशतमा)	कहिले
Organization	Code	Rs.	Interest rate (%)	Year

ख) अनुदान

b. Grants

१. आर्थिक अनुदान	कोड	श्रोत	रकम:	कहिले	
i. Financial grants	Code	Source	Rs.	Year	
२. बिरुवा/बिउ बिजन	कोड	श्रोत	एकाई	परिमाण	कहिले
Seeds and seedlings	Code	Source	Unit	Quantity	Year
३. अन्य (जस्तै हाते ट्याक्टर, सिंचाई, मल सुधार)	कोड	श्रोत	एकाई	परिमाण	कहिले
Others (tractors, irrigation, farm yard improvement)	Code	Source	Unit	Quantity	Year

ग) प्राविधिक सहयोग

Technical (technological) supports

सहयोग	कोड	उद्देश्य वा के को लागि (तरकारी, फलफुल, दुवै)	श्रोत (कसले)	एक वर्षमा कति पटक लिएको?	वर्ष (कहिले)
Support	Code	Objective	Source	Frequency	Year

७.४ तपाईंले VCDP, कृषि ज्ञान केन्द्र, पालिका, एग्रोभेट, सहकारी बीउ विजन तथा कृषि सामग्री कम्पनीहरुबाट सेवा लिनु भएको छ ?

छ मुख्य ५

क) छ ख) छैन

Have you received service from VCDP, Agriculture Knowledge Centre, Municipality, Agro-vet, Cooperative and Company

Yes No

यदि छ भने

If Yes

संस्थाको नाम	उपलब्ध सेवाहरु	दुरी (कि.मि)	पर्याप्तता (राम्रो, ठिकै, कमजोर)	कोड
--------------	----------------	--------------	----------------------------------	-----

Organization	Available Services	Distance (KM)	Availability	Code

७.५ यदि छैन भने त्यस्ता बाँकी नपुग आवश्यकता सेवाहरु कसरी पुर्ति गर्ने गर्नु भएको छ ?

If No, where did you received required services

क) Private Agro Vet ख) छिमेकी ग) अन्य

Private Agro Vet Neighbor Others

७.६ तरकारी तथा फलफुलको उत्पादनमा तथा उत्पादकत्वमा विगत ५ वर्षको मा के परिवर्तन आएको छ ?

What crops do you cultivate in your land before and after project implementation?

क्र.सं. S.No.	विवरण Description	खास परिवर्तनको अवस्था Difference	
		घट्यो वा बढ्यो Increased or Decreased	घट बढ प्रतिशत घट(-.....%) बढ (+.....%) %
१	खेतीको क्षेत्रफल Area of cultivation		
२	उत्पादनको अवस्था Production condition		
	उत्पादकत्वको अवस्था Productivity condition		
३	उत्पादन विक्री मूल्यको अवस्था Sale Price		
४	विक्री परिमाणको अवस्था Sale quantity		
५	सामग्रीको मुल्यको घटवढ Price of Input		
६	विक्रीबाट हुने आयको घटबढ Income from Sale		
७	प्रांगारिक मलको उपयोगमा घटवढ Organic Fertilizer Use		
८	रासायनिक मलको उपयोगमा घटवढ Chemical fertilizer use		
९	प्रजातिहरु (पहिले तथा अहिलेका प्रजातिको नाम) Varities		
१०	बाली उपचारका प्रविधिहरु नाम क) एकिकृत शत्रुजिव व्यवस्थापन ख) किटानाषक औषधी प्रयोग ग) ग्रोथ हर्मोन उपयोग Treatment technologies for crops a) Integrated weed management b) Use of insecticides Use of hormone growth		

७.७ खेतीमा प्रयोग गरिएको विउ/विजन तथा अन्य सामग्रीको पर्याप्तता कस्तो छ ?

Adequacy status of seeds and other inputs/services

क्र.सं.	प्रयोग गरेको सामग्री/सेवाको विवरण	कोड	पर्याप्तताको अवस्था
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S. No.	Seeds and other inputs/services used	Code	Adequacy status	
			पर्याप्त छ Adequate	पर्याप्त छैन Not adequate
१	विउविजन Seeds			
२	मलखाद Fertilizer			
३	बाली उपचारका प्रविधिहरु क) एकिकृत शत्रुजिव व्यवस्थापन ख) किटनाशक विषादी प्रयोग ग) ग्रोथ हर्मोन उपयोग Treatment technologies for crops a) Integrated weed management b) Use of insecticides c) Use of hormone growth			
४	उन्नत प्रविधि क) औजारहरु (हलो, कोदालो, ट्र्याक्टर, कुटो, हजारी आदि) Advanced technologies Equipment (Spade, tractor,)			
	ख) सिंचाइ (फोहोरा, थोपा, परम्परागत, पाईप, हजारीबाट) Irrigation (fountain, drop, traditional, pipe,...)			
	ग) प्राविधिक ज्ञान Technical knowledge			
५	उर्वराशक्ति Production ability			
६	बजारको पहुँच Access to market			
७	बजार भाउको अनुकूलता Market price favorability			
८	ग्रेडिङको अवसर Grading opportunity			
९	अन्य केहि भए (खुलाउने) Others if any (Specify			

७.८ के तपाईंले खेतिपातीको लागी ज्यामी/कामदार लगाउने गर्नु भएको छ ?

क) छ ख) छैन

Have you used paid labours for farming?

a) yes b) No

७.९ यदि छ भने, सरदर वार्षिक कति जना कामदार लगाउनु हुन्छ /चाहिन्छ रु (संख्या उल्लेख गर्नुहोस्)

If yes, annually how many labour is required in average: Number

७.१० एक जना कामदारले एक दिनको ज्याला कति लिन्छ ?

How much do you need to pay for a labour per day?

	सुक्खा	खाना सहित
क) महिला	रु.	रु.
ख) पुरुष	रु.	रु.

Gender	Without lunch	With lunch
a) Women	Rs.	Rs.
b) Men	Rs.	Rs.

७.११ उत्पादनको लागि खर्च गरेको श्रम (प्रति रोपनी / कठठा)

. In an average, how many labours do you use in a ropani/ katha of land?

८. टिपाई/कटाई गर्दा हुने नोक्सानी (Harvest loss)

८.१ तपाईंले तरकारी तथा फलफुल टिपाई /कटाई गर्दा सरदर कति प्रतिशत नोक्सानी हुने गरेको छ ?

Percentage of loss during harvesting/picking

बाली	कोड	नोक्सान नहुने	२ % भन्दा कम	२ -५%	५-१०%	१०-२०%	२०% भन्दा बढी
Crop name	Code	No loss	Less the 2%	2-5%	5-10%	10-20%	Above 20%
...							
...							
...							

८.२ तपाईंको परिवारमा कसैले टिपाई/कटाई गर्दा हुने (Harvest loss) क्षति न्यूनीकरणको तालिम लिनु भएको छ

क) छ

ख) छैन

does any family member has participated in picking/harvesting loss management training?

a) Yes

b) No

८.३ यदि लिनु भएको छ भने के कस्तो तालिम ?

If Yes how much loss is minimized from which skill and technology

क्र.सं. S. No.	तालिमको नाम Name of Training	अवधि Duration
१		

८.५ तालिम प्राप्त व्यक्तिले आफूले सिकेको शिप तथा प्रविधि प्रयोगमा ल्याउने गर्नु भएको छ

क) छ

Have you utilised picking/harvesting loss management training?

a) Yes

b) No

८.६ यदि छ भने कुन शिप र प्रविधिको प्रयोगबाट कति प्रतिशतसम्म टिपाई /कटाई गर्दा हुने (Harvest) नोक्सानी घटेको महशुस गर्नु भएको छ ?

If yes, which technology has supported in reduction by how much percentage

क्र.सं. S.No.	प्रयोग गरेको शिप तथा प्रविधि training and technology	घटेको नोक्सानीको अनुमानित प्रतिशत Estimated Loss reduction %
१		

९.बजार सम्बन्धि जानकारी

Market related information

९.१ तपाईंलाई पायक पर्ने नजिकको बजारहरु कुन कुन छन् ? Which market is accessible to you

९.२ तपाईंका उत्पादनहरु कहाँ र कतिमा विक्री गर्नुहुन्छ ?

Where do you sell you vegetables and fruits and how much?

बाली वा उत्पादन	कोड	ईकाइ (प्रति केजी/केरा प्रति	ठेक्कामा दिने	बारीमै विक्री गर्ने	नजिकैको बजारमा आफै विक्री गर्ने	थोक विक्रेतालाई विक्री गर्ने
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		दर्जनमा)	(रुपैयामा)	(रुपैयामा)	बजार (ठाँउको नाम)	मुल्य	बजार (ठाँउको नाम)	मुल्य
Vegetables and fruits	Code	Unit	Contract Out	On farm	Self-nearest market		Sell to wholesaler	
					Name of Market	Price	Name of Market	Price

९.३ बजार सम्म सामान पुऱ्याउन कुन साधन प्रयोग गर्नुहुन्छ ? (जस्तै आफैं बिक्री गर्ने, पैदल, साइकल, मोटरसाइकल, ई. रिक्सा, ठेला, ट्र्याक्टर, गाडी, अन्य)

Which transportation do you use to bring your products to the market?

साधन	कोड	दुरी	ढुवानीको लागि लाग्ने समय (मिनेटमा)	ढुवानी खर्च (प्रति ईकाइ)
Means	Code	Distance	Time required	Cost per unit

९.४ बजार सम्म जोडिने सडकको अवस्था कस्तो छ ?

Status of road connecting to market

स्थान (कहाँ देखि कहाँ सम्म) Place (from where to where)	मौसमी Seasonal	सदावहार Permanent
१.		

९.५ के तपाईंलाई तरकारी तथा फलफूलका बजार भाउ विक्री गर्नु पूर्व थाहा हुन्छ

क) हुन्छ Yes

ख) हुदैन No.

९.५.१ यदि थाहा हुन्छ भने कसरी वा के मार्फत थाहा पाउनु हुन्छ रु

If yes how and through which means?

९.६ तपाईंको उत्पादन (तरकारी तथा फलफूल)को मूल्य निर्धारण कसरी हुन्छ

क) आफैं

ख) व्यापारीले

ग) संकलन केन्द्र वा सहकारीले वा समुहले

घ) अन्य (उल्लेख गर्ने)

.....

a- self b-Buyer or trader c-Collection center or Cooperative d- other pls specify

९.७ विक्री गरेको सामानको भुक्तानी प्रकृया कस्तो छ ?
What is the process of payment of sold goods?

क) अग्रिम भुक्तानी

ख) विक्री गरेकै समयमा भुक्तानी

ग) विक्री गरेको केही समय पछि भुक्तानी

a-Advance payment

b- At the time of sales

c- After some time of sales

९.८ बिक्री प्रक्रिया कस्तो छ ?
What is the process of selling?

क) व्यक्तिगत Individual

ख) सामुहिक Group

ग) बस्तु अनुसार दुवै Depending upon crop

९.९ ढुवानी खर्च कसले व्यहोर्ने चलन छ ? Who bears the transportation Cost?	क) किसान आफै ख) स्थानीय व्यापारी ग) थोक व्यापारी घ) अन्य भए (उल्लेख गर्नुहोस्)..... a- Farmers b-local trader c- Whole saler d- Other pls specify.....
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९.९. ढुवानी गर्दा कति नोक्सान हुन्छ ?

How much is lost during transportation?

बाली/उपज	कोड	दुरी	लोड गर्दाको परिमाण (ईकाइ)	अनलोड गरेर विक्री गरेको परिमाण (ईकाइ)
Name of fruit or vegetable	Code	Distance- km	Quantity during Load (unit)	AfterUnload sold quantity (unit)

९.१० ढुवानी गर्दा हुने वस्तुको नोक्सानी कसले व्यहोर्ने चलन छ ? Who bears the loss during transportation?	क) किसान आफै ख) स्थानीय व्यापारी ग) थोक व्यापारी घ) किसान र व्यापारीले वाँडेर ङ) अन्य भए (उल्लेख गर्नुहोस्)..... a-Farmers b- traders c-Whole salers- d-Distributed among farmers and traders e-if other pls pls specify.....
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९.११ तपाईंले विक्री गरेको बालीमा जति (जोख्दाको परिमाण र भुतानी पाउने परिमाणको अन्तर) कति जान्छ ?

What is the weight difference between the price received in delivery quantity and price received?

बाली/उपज	विक्री गर्ने बेलासा जोख्दाको परिमाण	परिमाण (व्यापारीले सखर गरेको परिमाण)
Name of fruit or vegetable	Quantity (Weight)during sales delivery	Quantity (trader informed)

१०. समस्या सम्बन्धि जानकारी

Information on Problem

१०.१ उत्पादन देखि संकलन गर्दा सम्मका समस्याको पहिचान (प्रथमिकीकरणका आधारमा)

Information on Problem- Ranking-From production to Collection

बालीको नाम	कोड	खेत बारी तयारी	विउ बिजन व्यवस्थापन	मलखाद तथा रोगकीराको व्यवस्थापन	सिंचाई	टिपाई वा कटाई
Name of fruit or vegetable	Code	Land preparation	Seed management	Fertilizer and pesticide management	Irrigation	Picking or harvesting

१०.२ तपाईंको बालीको मूल्य बढि पाउन के के गर्न सकिन्छ ?

What you can do to have higher price of fruits and vegetables

बाली	खेती गर्दा	टिपाई वा कटाई	ग्रेडिङ	प्याकेजिङ	ढुवानी	बजार पहिचान	मूल्य निर्धारण
Crop	Planation	Harvesting	Grading	Packaging	Transportation	Identifying Market	Price Fixation

११. तरकारी तथा फलफूल खेती तथा बजारिकरण सम्बन्धी तालिमको अवसर

Training opportunities on Vegetable and fruit production and Marketing

११.१ तपाईंको परिवारमा कसैले तरकारी तथा फलफूलको खेती तथा बजारिकरण सम्बन्धी तालिम लिनु भएको छ

Have any of your family have participated in training Organized by VCDP

क) छ
ख) छैन
a) Yes
b) No

११.२ यदि छ भने कस्तो तालिम

2 if yes what type of training

क्र.सं.	तालिम (विषय)	तालिम अवधि (दिनमा)	आयोजक	साल
S.No	Training subject	Training period (Days)	Organised by	Year

११.३ के तालिम लिनु भएको व्यक्तिले तालिममा सिकेको ज्ञान व्यवहारमा लागु गर्ने गर्नु भएको छ

Does the trained personale is using the skill obtained in training?

क) छ Yes

ख) छैन No

११.३.१ यदि छ भने के के कुरामा कति

If yes in which activity

क्र.सं.	सिकेको ज्ञान सिप वा विषय	व्यवहारमा लागू गरिएको काम तथा क्षेत्र
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S.N.	Trained knowledge or skill	In practice used area

११.३.२ यदि छैन भने किन ?

If No why

१२. वाली उत्पादनोपरान्त हुने नोकसानी (Post-Harvest loss) न्यूनीकरण Post Harvest loss

१२.१ तपाईंको परिवारमा कसैले वाली उत्पादनोपरान्त (Post-Harvest loss) हुने क्षति न्यूनीकरणको तालिम, अल्ययन, भ्रमण लिनु भएको छ ?

does any family member has participated in picking/harvesting loss management training?

क) छ Yes

ख) छैन No

१२.२ यदि लिनु भएको छ भने के कस्तो तालिम ? If yes, What type of training	१	

१२.३ तालिम प्राप्त व्यक्तिले आफूले सिकेको शिप तथा प्रविधि प्रयोगमा ल्याउने गर्नु भएको छ ?

does training has been utilised?

१२.४ यदि छ भने कुन शिप र प्रविधिको प्रयोगबाट कति प्रतिशतसम्म उत्पादनोपरान्त (Post-Harvest) नोकसानी घटेको महशुस गर्नु भएको छ ?

If Yes how much loss is minimized from which skill and technology

क्र.सं.	प्रयोग गरेको शिप तथा प्रविधि	घटेको नोकसानीको अनुमानित प्रतिशत (%)
S.N.	Useful training and technology	Estimated Loss reduction %
१		
२		

१३. समस्या पहिचान तथा सुझावहरू Identification of Problem and Suggestions

१३.१ तपाईंको परिवारले तरकारी तथा फलफूल उत्पादनका साथै मुख्य श्रृंखला अभिवृद्धिमा भोग्नु परेको मुख्य मुख्य समस्याहरू के के छन्?

What are the Main problem faced by your family in production and value addition and your suggesstion pls?

मुख्य श्रृंखला Value Chain	कोड Code	समस्याहरू (प्राथमिकताको आधारमा)			सुझावहरू Suggestion
		१ 1	२ 2	३ 3	
स्तरीकरण गर्दा During production					
प्याकेजिङ्ग गर्दा During Packaging					

ढुवानी गर्दा During Transportation					
ढुलुडु नुधरुण गर्दा During Pricing					
डुडरुीकरण गर्दा During Marketing					

१ॡ. सेवड तथड वलडड सुडुडुध वलवरण

About Credit and Insurance

१ॡ.२ तडडडलडड उलुलेखलत तरकरुी तथड डलडुल खेती वुडवसडडकु लडगल डवसुडड सेवडहरुडड डहुँकुडकु डवसुथड कसुतु ड

What is the status of access to service providers

सेवड डुरडडक	कुड	दुरी	उडलडुध सेवड सुवलधडहरु	सेवड डुरडुत गरुु नगरुकु (ड/डैन)
Service provider	Code	Distance	Available services	Services received (Yes/No)
डैंक Bank				
सहकरुी Cooperative				
कृषल सुडूह Agriculture Group				
डरुली डीडड Agricultural Insurance				
डगुडुडुत Agro-vet				

१ॡ.३ डरुली डीडड गरुु डरुनु डरुनु डरुनु डरुनु ? Have you insured your crop? a) yes b)no	क) ड ख) डैन
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१ॡ.३.१ डदल ड डने

if yes

डरुली	कुड	डीडड गरलरुकु सुसुथड	डीडड गरलरुकु डरुली (कुषुतुरडल)	डुरलडडड	डीडड रकड
Crop name	Code	insurer	Area of insured crop	premium	Insured value
१ॡ.ॡ डीडड गरलरुकु वरुललहरुकड कुषुतल डडु कल डरुन ? insured crop damaged or not			क) डडु yes ख) डरुन No		
१ॡ.ॡ डदल कुषुतल डरुनु डरुनु, वलडडरुड कुषुतलडूरुतल डरुनु गरुु डडु कल डरुन ? if crop lossed have you claimed for payment			क) डडु yes ख) डरुन No		
१ॡ.ॢ कुषुतलडूरुतल डुरडुत गरुु डडु ? Have you received money?			क) सडडडडै डुरडुत गरुु ख) दलल डुरडुत डडु ग) डुरडुत डरुन a) Timely received b) late receive d) not received		

१४.७ के तपाईलाई कृषि बीमा गरे वापत सरकारले आर्थिक सहायता दिनेबारे जानकारी रहेको छ ? Do you get government support on crop insurance premium?	क) छ Yes ख) छैन No.
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१४.८ VCDP लगायत अन्य संस्थाबाट तपाईले के के सहयोग प्राप्त गर्नु भयो ? What supports you received from VCDP and other organisations	क) सामाग्री सहयोग (टनेल, यान्त्रिकरण तथा अन्य) Input supports ख) तालिम (क्षति नियन्त्रण, सम्बन्धन, उत्पादन प्रविधि, आदि) Training ग) वित्तिय सहयोग (बिउ पूँजी, ऋण, अनुदान, आदि) Financial घ) प्रसार सेवा VCDP Staffs बाट प्राविधिक सेवा) Extension ङ) बजार सम्बन्धन (थोक व्यापारी, व्यापारी लिस्ट सम्झौता) Market च) संकलन केन्द्र Collection centre
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१४.९ के यो सहयोग पर्याप्त थियो वा थिएन रु यदि पर्याप्त थिएन भने उल्लेख गर्नुहोस् । Was the support sufficient, if not then please mention	क) थियो Yes ख) थिएन No क) व्यावसायिक खेतीको लागि बिउपूँजिको अभाव insufficient seed money ख) खेतीको लागि प्राविधिक ज्ञानको अभाव absence of technical knowledge ग) बिक्रीको लागि समस्या र बजार सम्बन्धनको अभाव problem in selling and market घ) उत्पादन लागत बढि र बिक्रीबाट प्राप्त हुने रकम न्यून high cost of production and low profit
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१४.१० VCDP Project आएपछि तपाईले क्षति नियन्त्रणको ज्ञान प्राप्त गर्नु भयो वा भएन रु यदि भयो भने, कसरी उल्लेख गर्नुहोस् । Have you recieve knowledge on post harevest loss from VCDP. If yes, mention	क) भयो Yes ख) भएन No क) प्लास्टिक क्रेटको प्रयोग Use of plastic crate ख) जाली झोलाको प्रयोग Use of Net bag ग) निश्चित तौल परिमाणको प्लास्टिक झोलाको प्रयोग Use of plastic bag घ) उपयुक्त समयमा फलफूल तथा तरकारी टिप्ने harvesting on right time
यदि भएन भने, के आवश्यक ठान्नुहुन्छ? If no, what are required	क) क्षति नियन्त्रण कम गर्ने प्रविधिको तालिमको प्रदर्शन आवश्यक exhibition on post harvest loss technology ख).....

१४.११ थोक तथा खुद्रा व्यापारीहरुलाई कृषि उपज बिक्री गर्न सम्बन्धन को स्थिति कस्तो छ ? What is the situation of selling products to wholesalers and retailers	क) सहकारीले संकलन केन्द्रको व्यवस्था गरिदिएको Cooperative has established collection centre ख) फार्म वा खेतमै तरकारी तथा फलफूल संकलन गर्ने स्थानिय व्यापारीहरु उपलब्ध भएको collected at farm ग).....
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१४.१२ तपाईको बजार सम्बन्धी सुचना प्राप्त गर्ने श्रोतहरु के के हुन ?	क) स्थानिय व्यापारी local vendor ख) रेडियो, एफएम radio FM
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What are the source of informatin	ग) कालिमाटी बजारको वेबसाईट website of Kalimati घ) अडियो नोटिस्/टोल फ्री नम्बर radio notice/ toll free no ङ) व्यापारीहरुसित सम्पर्क गरी contacting vendor
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१५. माटो तथा मल व्यवस्थापन Soil and fertilizer mangement

१५.१ तपाइको घरमा सुधारिएको गोठ छ ? Do you have improved cattle shed?	क. छ ख. छैन a-Yes b-No
यदि छ भने मूत्र संकलन गर्ने छुट्टै व्यवस्था छ ? If yes, Do you have separate urine collection system	क. छ ख. छैन a-Yes b-No

यदि मूत्र संकलन गर्ने छुट्टै व्यवस्था छ भने
If yes,

परिमाण Quantity	प्रयोग गरिने बाली Used in crop	प्रयोग गर्ने विधि Using method	प्रभावकारिता effectiveness

१५.२ उन्नत तरिका वाट गोठे मल बनाउनु हुन्छ ? Do you prepare compost fertilizer with modern technology	क. बनाउछु ख. बनाउदिन a-Yes b-No
१५.३ कम्पोष्ट मल बनाउने गर्नु भएको भए वर्षमा कति भारी बनाउनु हुन्छ? What is the quantity of compost fertilizer is prepared	

१५.४ माटो संरक्षणको लागि के के कार्यहरु गर्नु भएको छ What are activities you have utilized for soil protection	क. गढा सुधार Terrace management
	ख. (SALT) भिरालो जमिन खेति प्रणाली
	ग. कृषि वन Agro forestry
	घ. अन्य (.....)Other

१६. माथि उल्लेखित कुराहरु बाहेक तपाईंलाई अरु केही टिप्पणी गर्नु छ ? यदि छ भने के कुरामा ?
Others than above

१६. COVID १९

1. COVID-19 को कारणले गर्दा तपाईंको व्यवसायको कुन चरणमा असर परेको छ? र कति प्रतिशतमा
. Due to COVID-19 in which stage of your business is affected? And in what percentage

गतिविधि	प्रतिशत (%)
क) उत्पादन Production	
ख) पोस्ट हर्वेस्ट Post harvest	
ग) बजार मूल्य Market price	
घ) अन्य Other	

2. के तपाईंले परियोजना, पालिका, सहकारीबाट कुनै सहयोग प्राप्त गर्नु भयो? प्राप्त गर्नु भएको भए कस्तो प्रकार र कति सान्दर्भिक रह्यो ।

. Have you received any support from Project, Palika, cooperative

क्र.सं.	संस्था	सहयोगको प्रकार	सान्दर्भिकता (५=उत्कृष्ट, ४=राम्रो, ३=मध्यम, २= गैर-लाभकारी, १=खराब)
S.N	Organization	Type of support	Relevancy (5=excellent, 4=good, 3=medium, 2= non-benefitted, 1=bad)
१	VCDP		
२	पालिका Palika		
३	सहकारी Cooperative		
४	कृषि ज्ञान केन्द्र Agriculture Knowledge Centre		

३. समुदाय बाहिर वा VCDP सँग सम्बन्धित नभएका किसानहरूले तपाईंसँग VCDP बारे सोध्छन् ?

क) सोध्छन् ख) सोध्दैनन्

Out side from community or not related with VCDP does they ask or with you about the VCDP

a Yes b. No

४. खेतीपातीमा कुनै समस्या छ भने को सँग सेवा माग्नुहुन्छ ?

१) सहकारी

२) कृषि /पशु चिकित्सक

३) पालिका JT/JTA's

४) VCDP कर्मचारी

५) अन्य

If you have any problem in farming to whom you ask for service?

a Cooperative

b Agrovet

c Palika 's JT/JTA's

d other.....

L. VCDP मा लाभार्थीहरूको प्रभाव Impression of Beneficiaries on VCDP

१. कृपया निम्न मुद्दाहरूमा आफ्नो राय दिनुहोस्

Pls give your opinion in following issues

मुद्दाहरू	५ = पूर्ण सहमत	४ = सहमत	३ = विचारा	२ = असहमत	१ = पूर्ण रूपमा असहमत
१. यो परियोजनाले सीमान्तकृत र विपन्न समूहका साथै महिलाको आवश्यकता र प्राथमिकतालाई सम्बोधन गर्न सक्षम छ, ।					
२. यस परियोजना प्रदर्शनमा प्रभावकारी गुणस्तर, मात्रा र समयबद्धता छन् ।					
३. परियोजना सम्पन्न भएपछि केही गतिविधिहरू जारी राखिनेछ।					
४. यस आयोजनाका कारण बालीको उत्पादन र उत्पादकत्व बढेको छ ।					
५. यस परियोजनाको कारणले फसल पछिको हानि उल्लेखनीय रूपमा घटेको छ।					
६. यस परियोजनाका कारण बाली बजारीकरण सहज भएको छ					

7. यो परियोजनाले महिला, सीमान्तकृत र विपन्न समुदायलाई उत्पादन बृद्धिमा, फसलपछिको नोक्सान व्यवस्थापन, बजार जडान विकासमा सहयोग गरेको छ ?					
8. परियोजना गतिविधिहरू प्रदर्शन गर्ने परियोजना र स्थानीय साझेदारसँग सचेतना छ ।					
९. पहिलो कोभिड-१९ पछि पनि आयोजनाका गतिविधि प्रभावकारी छन्					
10. यस परियोजनामा महिलाहरूको संलग्नताका कारण अन्य घरायसी काममा संयुक्त रूपमा काम गर्ने अभ्यास विकास भएको छ ।					
11. यो परियोजना गतिविधिहरूले महिला र अन्य सीमान्तकृत समुदाय वा महिला सशक्तिकरणमा सकारात्मक परिवर्तन गरेको छ ।					

Issues	5 = Fully agree	4 = Agree	3 = inbetween	2 = Disagree	1 = totally disagree
1. This project is able to address the need and priority of women's, marginalized and disadvantage groups.					
2. This project performance are effective in quality, quantity and timeliness.					
3. After project completion som activities will be continued.					
4. Due to this project production and productivity of crops are increased.					
5. Due to this project post harvest loss is significantly minimized.					
6 Due to this project crop marketing is facilitated					
7 This project have helped to women's, marzinolized and disadvantage community in production increament,pot harvest loss management,in market linkage development					
8 Aware with project and local partner performing the project activities					
9 Even after COVID-19 first the project activities are effective?					
10 Due to the women's involvement in this project, the practice of jointly working inother household activity is developed?					
11 does this project activities have positively changed the women and othe marginalized communitys or inwomen's empowerment.					

2. तपाईंले कुल परियोजना गतिविधिहरू कसरी मूल्याङ्कन गर्नुभयो (5=उत्कृष्ट, 4=राम्रो, 3=मध्यम, 2= गैर-लाभकारी, १=खराब)						
क्र.सं	विवरण	5	4	3	2	1
A	फल उत्पादन					
B	तरकारी उत्पादन					
C	मूल्य अभिवृद्धि (बजार बिक्री)					
D	फलफूल र तरकारी बजारीकरणमा सहयोग					
E	फलफूल र तरकारी भण्डारणमा सहयोग					

2- How did you evaluate the in total project activities (5=excellent, 4=good, 3=medium, 2= non-benefitted, 1=bad)

S.N	Description	5	4	3	2	1
A	fruit production					
B	vegetable production					
C	value addition					
D	Help In fruit and vegetable marketing					
E	Help In fruit and vegetable storage					

GESI Related Questionnaire

सूचकहरू Indicators	प्रश्नहरू Questions	टिप्पणीहरू Note
निर्णय गर्ने क्षमता Decision Making Capacity	तपाईंको व्यापारिक गतिविधिहरूमा (किन्न वा बेच्ने) नेतृत्व कसले गर्छ? Who lead activities (sale and purchase) related to business	महिला पुरुष दुवै Female/ Male/ both
	कसले निर्णय गर्छ, अधिकांश समय: (पुरुष, महिला वा दुवै) <ul style="list-style-type: none"> बेच्ने हो कि हैन ? Whether agriculture products are to be sold or not के उत्पादन बेच्ने? Which agriculture products to be sold कति मात्रामा किन्ने? How much quantity तपाईं कुन मूल्यमा उत्पादन (हरू) बेच्नुहुन्छ? Price fixation of agriculture's products to be sold कहाँ बेच्ने? Location/ market कसलाई बेच्ने ? Which buyer will be chosen for agriculture products to be sold उत्पादन (हरू) कहाँबाट प्राप्त हुनेछ (यदि तपाईंले तिनीहरूलाई आफैं उत्पादन गर्नुहुन्न भने)? Buying agriculture products if they don't produce the product. बजार/व्यापारिक गतिविधिमा वित्तिय ऋण लिने ? Loan/ debts seeking 	
	कसलाई बेच्नुहुन्छ? (जस्तै थोक बिक्रेता, एग्रीगेटर, बजार रानी, उपभोक्ताहरू लाई प्रत्यक्ष)	
	तपाईं तपाईंको धेरै उत्पादन कहाँ बेच्नुहुन्छ? (जस्तै फार्म गेट्स, थोक बिक्रेता, स्थानीय बजार, अन्य)	
	के तपाईं एउटै वस्तुको उत्पादन वा व्यापार गर्ने सहपाठी लाई क्रेडिट प्राप्त गर्नुहुन्छ वा प्रदान गर्नुहुन्छ?	

धन्यवाद

B. Checklists for FGD

Checklist for Focus Group Discussion

Questions	cooperative members and/ or Market Centers/ women beneficiaries	Farmers with disability	Training Receivers	Migrant Returnees
Are you aware of the VCDP project? What is the status of your involvement in the project?	√	√	√	√
How did your organization get selected for the VCDP project?	√			
Please specify the types of production enhancement assistance provided by VCDP projects? a) Material Support (Tunnel Farming, Plants, Mechanization, Computers and Printers) b) Training (post-harvest, market linkage, production techniques) c) Investment subsidy d) Extension Service e) Vehicles f) Market relations g) Collection center h) Cooling chamber i) Other Specify	√			
Was the above support provided by the VCDP sufficient for your organization to operate? If not, what kind of extra help do you need? Please specify a) Pack house for collection, marketing, grading and packaging b) Mini auto ride for local transport c) Seed capital for investment to buy farmer's produce in season.	√			
What are the benefits of VCDP support? (Capacity strengthening - institutional and personnel, value chain strengthening, productivity growth, improved market linkages) Were the benefits effective?	√	√	√	√
What techniques are provided by VCDP to reduce post-harvest losses? How effective are the techniques? How do you specify that post-harvest losses are reduced after VCDP intervention? a) Use of plastic crates (Tomatoes, Cauliflower, Beans, Akbare Khrisani) b) Use of plastic bags (25 to 40 kg) c) Proper management of vegetable transportation and use of own vehicles d) Providing information to farmers about collection and storage by trained experts e) Other Specify	√	√	√	√
Are you involved in the training program organized by VCDP and what kind of training have you received as mentioned in the details? a) Training on damage control mitigation measures b) Market management related training c) Capacity building related training d) Training related to cooperative management e) Capacity building related training	√	√	√	√

f) Training related to accounting management g) Business plan preparation training h) Other specify a) Which of the above trainings is your favorite training topic?				
How is the cooperative serving the share members/farmers?	√			
a) Collection center b) Market relationship with different markets c) Liaison with weighing facilities and local traders d) Providing transport services at cheaper rates by cooperatives transportation vehicles as compared to private transport e) Providing information to fetch higher prices for off-season vegetables f) Financial assistance to farmers for investment (loan investment) for commercial farming. g) Opportunity to get higher prices of fresh vegetables and fruits by strengthening the bargaining power of the group to unite the farmers in one place. h) Facilitating crop insurance subsidy to farmers i) Administer training to shareholders on post-harvest techniques, market linkage training and production techniques by trained staff of the cooperative.				
How would you specify that farmers' net income has increased after the intervention of the VCDP project?	√			
a) By providing advice to the farmers on production techniques that make proper use of proper quantities of inputs. b) Providing farmers with market information about market prices and market supply conditions c) By providing information about agricultural statistics records maintained at farmer level for income and expenditure of farmers				
To what extent does the program address gender and racial issues? (Prob: participation, access to technology, funding....)	√	√		
What value addition activities do you perform before selling agricultural produce in the market (cleaning, sorting/grading, and packaging to get higher value of produce?	√	√	√	√
What is the status of forward and backward linkages in the fruit and vegetable value chain?	√			
What is the status of women's participation in fruits and vegetables at different stages of the value chain?	√			
What are the barriers and enabling factors for women's involvement at each stage of the vegetable and fruit value chain? (Production, collection, grading, packaging, processing, marketing, transportation...)	√			
What are the impacts of COVID-19 on VCDP	√			

activities (probe: input supply, services, product collection and trade)? What support did you receive from VCDP during and after COVID-19?				
To what extent is the reprogramming of project activities for immediate COVID-19 response relevant to meet local needs? (program structure)	√			
How would you rate the VCDP project itself (design and approach) and the overall activity of the project?	√	√	√	√
What is the role of women in value chain development activities and activities supported by VCDP?	√			
How many hours did you spend on vegetable and fruit production?	√	√		√
What are the main aspects of women's economic development through vegetable and fruit production?	√			
Who makes decisions regarding the sale of vegetable and fruit products?	√	√		√
What are the challenges for the active participation of women and marginalized groups in this area?	√	√		
How did you get involved in the VCDP project? What kind of help did you get?		√	√	√
What is the status of participation of people with different abilities in fruits and vegetables at different stages of the value chain?		√	√	√
What is the role of people with different abilities in value chain development activities and activities supported by VCDP?		√		√
What are the main aspects in the economic development of people with different abilities from vegetable and fruit production?		√		√
To what extent does the program address gender and racial issues?				√
How difficult is the training received from VCDP?			√	
How is the training received from VCDP in terms of your capacity development?			√	

C. Checklists for KII

KII Checklist for UNDP/MoALD/ KOICA/VCDP

1	What kind of support has VCDP provided for value chain development of vegetables and fruits in its command area? (Institutional Support, Technical/Resource Materials, Infrastructure and Equipment, Training Technology and Financial)
2	What are the benefits of VCDP project support? Was the benefit effective? (capacity building, value chain processes) effective?
3	VCDP's financial support is being used on what basis?
4	How have farmers adopted technology? What is the diffusion of technology in other parts of the municipality? What is the status of forward and backward linkages in the fruit and vegetable value chain?
5	In which area do you feel that the VCDP project, conducted with the aim of reducing damage, increasing the income level of farmers, and increasing the value chain, mention some indicators and indicators?
6	VCDP to enhance the value chain of vegetables and fruits, please mention the work modality coordination, how has it been?
7	How do you evaluate the project itself (design and approach) and the overall activities of the VCDP project? (relevance, effectiveness, impact)
8	Which GESI policies are mandatory in the project?
9	In your experience, how have you analyzed the activities related to women empowerment from this project?
10	What is the key strategic program approach to VCDP from a GESI perspective?
11	How did you analyze the GESI related data for this project?
12	What are the main challenges and lessons learned from this project?
13	Any suggestions and recommendations for an upcoming project.

KII Checklist for Municipality

1	Do you know about the implementation of the VCDP project in your municipality?
2	What kind of support has VCDP provided for value chain development in vegetables and fruits? Such as: (institutional support, technical/resource materials, infrastructure and equipment, training, technology and financial)
3	Are cooperatives and VCDP projects coordinated with your municipality?
4	What is the main product of this municipality? Are the techniques of achieving total profit, market relevance, and damage control management provided by VCDP effective?
5	What can be done to correct this problem? To what extent has the technology provided by VCDP been incorporated/promoted/adopted in other agricultural programs of the municipality?
6	What are the benefits of VCDP's project support? Was the benefit effective? (Capacity building, institutional and personnel, value chain strengthening, production growth, market; relations, ...)
7	What about forward and backward linkages in the fruit and vegetable value chain?

8	To what extent have farmers, especially women farmers, adopted the techniques of VCDP?
9	What are the impacts of COVID-19 on VCDP's activities (material supply, services, product collection and trade)? What support did you get from VCDP during COVID in this municipality?
10	To what extent is the reprogramming of project activities relevant to the immediate COVID-19 response to meet local needs? (program structure)
11	How would you rate the overall activity of the VCDP project? (relevance, effectiveness, impact...)
12	How does the project meet GESI criteria according to local government regulations?
13	Who are the main beneficiaries of this project? And how many women and marginalized populations are targeted by the project?
14	What are the main strengths and weaknesses of the VCDP project from a GESI perspective?
15	Any suggestions and recommendations for an upcoming project.

KII Checklist for Agriculture Knowledge Center

1	Do you know about the support provided by VCDP project to various agricultural cooperative organizations for the development of the value chain in vegetables and fruits in your area of work?
2	Do the farmers of agricultural cooperatives come to get information about agricultural technology?
3	How does the agricultural knowledge center collect resources? <ul style="list-style-type: none"> • From experienced farmers • From agricultural experts • From technology documentation
4	How do you transfer and transmit new technologies? <ul style="list-style-type: none"> • From training and seminars • From display results
5	Do Agricultural Cooperatives and Local Municipalities agree to conduct agricultural program with Agricultural Knowledge Center?
6	To what extent has the technology provided by VDCP been included/promoted/adopted in other agricultural programs of the municipality?
7	What are the benefits of VCDP's project support? Was the benefit effective? (Capacity building, institutional and personnel, value chain strengthening, production growth, market; relations, ...)
8	What about forward and backward linkages in the fruit and vegetable value chain?
9	To what extent have farmers, especially women farmers, adopted the techniques of VCDP?
10	What are the impacts of COVID-19 on VCDP's activities (material supply, services, product collection and trade)? What support did you get from VCDP during COVID in this municipality?
11	To what extent is the reprogramming of project activities relevant to the immediate COVID-19 response to meet local needs? (program structure)
12	How would you rate the overall activity of the VCDP project? (relevance, effectiveness, impact...)
13	How does the project meet GESI criteria according to local government regulations?

14	Who are the main beneficiaries of this project? And how many women and marginalized populations are targeted by the project?
15	What are the main strengths and weaknesses of the VCDP project from a GESI perspective?
16	Any suggestions and recommendations for an upcoming project.

Checklist for NARC/ Academia

1	How was your organization selected for the VCDP project?
2	What support has VCDP provided for value chain development of vegetables and fruits in its command area? (Institutional Support, Technical/Resource Materials, Infrastructure and Equipment, Training Technology and Financial)
3	What are the benefits of VCDP project support? Was the benefit effective? (capacity building, value chain processes) effective?
4	What activities were conducted by NARC/Academia for this VCDP project to reduce post-harvest losses? 1. Training on post-harvest losses 2. Manual publication 3. Demo of packaging 4. Post-harvest damage investigation 5. Demo on storage of fruits and vegetables 6. Study results by engaging experts for research 7. Exposure tour 8. If any other.....
5	What techniques has NARC/Academia developed to reduce post-harvest losses? Please specify developed technology item wise.
6	How have farmers adopted technology? How much technology is being promoted in other areas of the municipality?
7	How many farmers received post-harvest technology training in the fruit and vegetable value chain?
8	What are the barriers to working in the field with farmers and VCDP?
9	How would you rate the project itself (design and approach) and the overall activity of the VCDP project? (relevance, effectiveness, impact)
10	Who are the main stakeholders of this project from the beneficiary's side?
11	How did you identify the key GESI mechanism for this project?
12	What are GESI's main efforts?
13	What are the key gaps and lessons for the GESI perspective?
14	What are the key M&E indicators of GESI view Are you satisfied with GESI data?
15	How would you analyze the GESI data and approach this project?
16	Any suggestions and recommendations for an upcoming project.

KII Checklist for Cooperative

Rural Municipality/Municipality:

Name of Interviewer:

Name of the Office:

Contact No.:

Type of business: 1. Wholesale 2. Retail

The main fruits and vegetables produced in this area are:

1	What kind of support has been provided by your VCDP for fruit and vegetable value chain development? (eg institutional support, technical/resource materials, material and equipment, training, technology and financial)
2	In which areas did you receive support in the VCDP project? Were those supports effective? (eg capacity development, value chain optimization, etc.)
3	Did you get grants and support on time? Or you got it late
4	To what extent were the support materials used? Especially from women.
5	On what basis is the financial support of VCDP being used?
6	How have farmers adopted technology? How much of the technology has been adopted in other parts of the municipality?
7	What about forward and backward linkages in the fruit and vegetable value chain?
8	What are the impacts of COVID-19 on VCDP's activities (material supply, services, product collection and trade)? What support did you get from VCDP during COVID in this municipality?
9	To what extent is the reprogramming of project activities relevant to the immediate COVID-19 response to meet local needs? (program structure)
10	How would you rate the project itself (design and approach) and the overall activity of the VCDP project? (relevance, effectiveness, impact)
11	What is the role of women in value chain development activities and activities supported by VCDP?
12	How many hours did women spend on fruit and vegetable production?
13	What are the main aspects of women's economic development through vegetable and fruit production?
14	Who makes decisions regarding the sale of vegetables and fruits?
15	Any suggestions and recommendations for an upcoming project.

KII Checklist for Market Centers

Center Name:

District:

Municipality:

1	<p>What support have you received from VCDP?</p> <ul style="list-style-type: none"> a) Collection center b) Cold room c) Vehicles d) Market Information System e) Plastic basket f) Digital Balance g) Computer printer 														
2	<p>Specify the crop to be collected monthly at this collection center.</p> <p><u>Crop Name-</u></p> <p><u>Month-</u></p> <p><u>Amount-</u></p>														
3	<p>Is the support provided by VCDP adequate/effective?</p>														
4	<p>What more help do you need from the collection center?</p>														
5	<p>What kind of facilities are provided by the collection center?</p> <ul style="list-style-type: none"> a) Buying vegetables from farmers b) Only collection facility is provided c) Interact with traders and farmers at the collection center d) Grading and packaging facilities are provided 														
6	<p>Does the collection center charge any service fee to the farmers for collection at the collection center?</p>														
7	<p><u>Command area of collection center:</u></p> <p><u>Place Name:</u></p> <p><u>Municipality:</u></p> <p><u>Ward No:</u></p>														
8	<p>Where are the destination markets of this collection center?</p> <ul style="list-style-type: none"> a) Kathmandu. b) Pokhara c) Chitwan d) Others 														
9	<p>Collection Center Infrastructure</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">a) Collection center</td> <td style="width: 50%;">b) Water</td> </tr> <tr> <td>c) Toilet</td> <td>d) Parking area</td> </tr> <tr> <td>e) Security guard house</td> <td>f) Open shed</td> </tr> <tr> <td>g) Auction shed</td> <td>h) Pack house</td> </tr> <tr> <td>i) Plastic baskets</td> <td>j) Vehicles</td> </tr> <tr> <td>k) Computer/Printer</td> <td>l) Digital price display</td> </tr> <tr> <td>m) Cooling shed</td> <td></td> </tr> </table>	a) Collection center	b) Water	c) Toilet	d) Parking area	e) Security guard house	f) Open shed	g) Auction shed	h) Pack house	i) Plastic baskets	j) Vehicles	k) Computer/Printer	l) Digital price display	m) Cooling shed	
a) Collection center	b) Water														
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g) Auction shed	h) Pack house														
i) Plastic baskets	j) Vehicles														
k) Computer/Printer	l) Digital price display														
m) Cooling shed															
10	<p>Does the collection center provide services to farmers to reduce post-harvest losses, if so, how?</p> <ul style="list-style-type: none"> a) Use of plastic crates b) Keeping vegetables in open sheds to avoid sunlight c) By providing plastic baskets and net bags for packaging 														

11	Who collects the product?
12	Who decides the financial services after the sale of the product?
13	Who decides most of the time how to use the income, men or women?
14	Do you feel this market is GESI friendly?
15	What are the main factors that make women feel ownership of this market?
16	What are the barriers to access of women beneficiaries from this collection center?
17	What are the gaps and challenges to enhancing GESI through this mechanism?
18	Do you have a GESI friendly policy or strategy?
19	Some recommendations from a GESI perspective?

Questionnaire to Rampur campus and University of Agriculture

Name of Institution:

Address:

District:

Year Established:

1.	How many agricultural graduates does this institution produce annually?
2.	<p>Apart from teaching, what other activities does this institution do?</p> <p>a) Study research on thematic wall</p> <p>b) Display results</p> <p>c) Transfer of proven technologies</p> <p>d) Transmission and transfer of new technology by conducting workshops of experts on technology</p> <p>e) Coordinate with government and non-government agencies to study and implement technologies</p>
3.	<p>What support has this organization received from VCDP to transfer the technology?</p> <p>a) Financial assistance</p> <p>b) Financial and technical support for students to do thesis</p> <p>c) Assistance in setting up labs for research</p> <p>d) Others:</p>
4.	<p>How has this organization been helping the farmers in the area of influence of VCDP?</p> <p>a) Information about the technique</p> <p>b) Publication of books on the technique</p> <p>c) Conduct training on the technique</p> <p>d) Others:</p>

Questionnaire to FM

Name of FM:

Address:

District:

Year Established:

1.	What support has been provided to this FM from VCDP? a. FM Materials (Machinery) b. Furniture c. Financial assistance
2.	When and what time is the broadcast of this FM?
3.	FM has been providing its broadcast service to how many listeners?
4.	FM broadcasts related to agriculture or not?
5.	From whom does FM collect information about new technologies? a. Agricultural Knowledge Centre b. VCDP c. NARC d. From various research articles
6.	What are the reactions of the farmers about the FM broadcasting system?
7.	What is the feedback about the agricultural practices being adopted by the farmers? a. Lack of access to new technologies to farmers b. Absence of developing new technologies

QUESTIONNAIRE TO CALL CENTERS

Name of the call center

Address:

District:

Year of Establishment:

Name of Respondent:

Designation:

Contact no.:

1.	What support has been provided to this Call Center from VCDP? a) Call center equipment (telephone set) b) Furniture c) Financial assistance Payment of annual telephone charges 4
2.	When was this Call Center established?
3.	Mention the number of women and men among how many people contact the call center daily?
4.	Who manages Call Center? How many technicians have been providing services in Call Center?
5.	When is the call center operation time?
6.	What are the reactions of the farmers about the call center?
7.	What are the questions that are asked in the call center?
8.	The calls that come to the call center are local and from within the district as well as from outside. If so, which districts will they come from?

Annex 4: Categorization of Palikas for VCDP Support

Category A	Category B	Category C	Category D
Phedikhol Gaupalika	Pokhara Mahanagarपालिका	Devchuli Nagarpalika	Roshi Gaupalika
Putalibazar Nagarpalika	Myagdye Gaupalika	Siddhalek Gaupalika	Panchkhal Nagarpalika
Vyas nagarpalika	Bhanu Nagarpalika	Ichchhakamana Gaupalika	Golanjor Gaupalika
Aanbookhaireni Gaupalika	Sahidlakhan Gaupalika	Bandipur Gaupalika	Manahari Rural Municipality
Namobuddha Nagarpalika	Dhulikhel Nagarpalika	Benighat Rorang Gaupalika office	Bharatpur Mahanagarपालिका
Thakre Gaupalika	Dhunibeshi Nagarpalika	Gandaki Rural Municipality	
Kamalimai Municipality	Manthali Nagarpalika	Gajuri Gaupalika	
Sunkoshi Gaupalika	Hetauda Upa-Mahanagarपालिका	Galchi Ga. Pa. Mul Sanchitkosh khata	
Ratnanagar Nagarpalika	Khairahani Nagarpalika	Rapti Municipality	
Kawasoti Nagarpalika	Madhyabindu Nagarpalika	Banepa Na.Pa.Na. Karyapalika	
		Khadadevi Gaupalika	
		Gaindakot Nagarpalika	

Annex 5: List of VCDP publications

Name of Publication	LANGUAGE
Project Brochure	Nepali/English
Project Leaflet	English
Project Infographic	Nepali
News Letter	English/Nepali
Agriculture Newswater	English
आलुबालीमा हावापानी व्यवस्थापन	नेपाली
Weather management in Ginger	Nepali
आलु खेती प्रविधि	नेपाली
Potato cultivation technology	Nepali
Compendium of Postharvest Research on fruit and vegetable in nepal	English
तरकारी खेती तथ्यांक संकलन फाराम कृषक समूह सहकारी तथा पालिका	नेपाली
Data Collection Form for Vegetable Cultivation from Agricultural Group and Municipality	Nepali
सुन्तलाजात फलफूल खेती उद्यम विकासको लागि प्राविधिक नीति निर्देशन	नेपाली
Technical Policy and Directives for Industry Development of Orange Fruits Cultivation	Nepali
फलफूल कृषक डायरी	नेपाली
Farmers Diary	Nepali
थाक्रो व्यवस्थापन	नेपाली
Support Management	Nepali
सुन्तलाजात फलफूल नर्सरी व्यवस्थापन प्रविधि	नेपाली
Nursery Management Technoly for Oranges	Nepali
राम्रो आम्रानिका लागि केही मुख्य वेमौसमी तरकारी उत्पादन	नेपाली
Off season vegetables production for good income	Nepali
फलफूल तथा तरकारी वालिको उत्पादनोपरान्त क्षति न्युनिकरण	नेपाली
Minimisation of Post Harvest Loss of Fruits and Vegetables	Nepali
फलफूल तथा तरकारी वालिको उत्पादन पश्चात क्षति घटाउने अन्य खाद्य तथा पोषणको उपलब्धी	नेपाली
Other nutrients for Minimisation of Post Harvest Loss of Fruits and Vegetables	Nepali
फलफूल तथा तरकारी वालि मूल्य शृंखला विकास आयोजना नोटप्याड	नेपाली
Note Pad for Value Chain Development of Fruits and Vegetables	Nepali
तरकारी खेती प्रविधि	नेपाली
Vegetable Cultivation Technics	Nepali
एलसयामागोलभेडा उत्पादनपरान्परिपरचालन	नेपाली
Production of Tomato in Asia	Nepali
तरकारीका स्वास्थ्य वेर्ना उत्पादनका लागि नर्सरी व्यवस्थापन	नेपाली
Nursery management for growing healthy seadlinks	Nepali
पोष्टर मेवाको फल टिप्ने उपयुक्त अवसर—	नेपाली
Poster- Right oppourtuntty for Papaya	Nepali
- कागती भण्डारणको सरल प्रविधि	नेपाली
Simple method of storing lemon	Nepali

- घरेलुस्तरमा वीउ भण्डारण प्रविधि Houshold methods for seed storage	नेपाली Nepali
- वजार सहजिकरणका लागि काउली भण्डारण प्रविधि Cauliflower storage technics for market faciliation	नेपाली Nepali
राज्यको संरचनामा जनशक्तिको बाँडफाँड Human Resource distribution in Nation Structure	नेपाली Nepali
कुलबोटप्रविधिजडितचिस्यानकक्ष Coolbot Technology for cold room	नेपाली Nepali
तरकारीवाली कृषक डायरी Farmers Diary for Vegetables	नेपाली Nepali
गोठको भुइँ सुधार गोठेमल सुधार र पशु मुत्र संकलन तथा प्रयोग Improvement of shed floor and collection and use of animal urine	नेपाली Nepali
स्थानीय तहको कृषि विकासका लागि स्थानीय संचालन एन २०७४ Local Level Agriculture Development Act 2074	नेपाली Nepali

Annex 6: List of laboratory equipment provided by VCDP to NARC

S. N .	Name of Equipment	Quantity	Received Year
1	Auto Clave	1	2018
2	Digital Refractometer	1	2018
3	DA Meter	1	2018
4	High speed refrigerated centrifuge	1	2019
5	Texturometer	1	2019
6	Co2 and O2 Logger	1	2019
7	Citric acid Brix Meter	1	2019
8	Digital Vernier Calliper	2	2019
9	Digital Balance	1	2019
10	Magnetic Stirrer	1	2019
11	VDRL Rotary Shaker	1	2019
12	Thermometer	1	2019
13	Digital thermometer with probe	1	2019
14	Spectrophotometer cuvette	2	2019
15	DSLR Camera	1	2019
16	Rigid ice box	1	2019
17	Muffle Furnance	1	2019
18	Thermometer	1	2019
19	DA Meter	1	2020
20	Four Digits Digital Balance	1	2020

Annex 7: List of Research on different themes, publications and technology distribution by NARC

Research themes conducted by NARC under VCDP

- I. Postharvest loss minimization of different vegetables in a storage condition.
- II. Development of appropriate postharvest handling technologies on Papaya.
- III. Postharvest loss minimization in tomato through variety selection
- IV. Postharvest loss minimization of different fruits in a storage condition
- V. Scaling up sustainable technologies for reducing postharvest losses of potato in corridors of Prithivi and B.P highways of Nepal
- VI. Adoption of appropriate engineering technologies for reducing postharvest losses of fruits and vegetables and profit enhancement of farmers
- VII. Development of technologies for postharvest loss reduction of Horticultural crops
- VIII. Minimizing postharvest losses of fruits and vegetables through appropriate postharvest technology in Gandaki Province of Nepal
- IX. Citrus fruits postharvest loss minimization technologies verification and promotion along B.P highway corridor
- X. Minimizing postharvest losses of fruits and vegetables through effective nutrient management
- XI. Socio-economic assessment of post-harvest loss of fruits and vegetable in Bagmati and Gandaki province of Nepal

Publications of NARC under VCDP in international and national journals

1. Storability of potato varieties under ordinary storage condition in Panauti, Nepal <https://sfna.org.my/snfa-02-2020-51-57/>
2. Effect of postharvest application of edible coating and packaging on acid lime fruit varieties Sun Kagati 1 quality at ambient storage condition
3. Modified atmosphere packaging of capsicum for extending shelf life under Cool-bot condition.

Technical manuals, information sheet, handouts for technology distribution

1. Nursery management technology for citrus species
2. Local agriculture programme operation and management guideline
3. Agri business promotion guideline for youth entrepreneurs affected by C19
4. Postharvest handling of fresh produces- Resource booklet- Nepali
5. Modified atmosphere packaging of capsicum for extending shelf life under coolbot condition
6. Effect of postharvest application of edible coating and packaging in acid lime fruit var. Sun Kagati 1 Quality at Ambient Storage Condition
7. Compendium of postharvest research in Nepal- Tech booklet- English
8. Technical guidelines for Citrus Industry Development in Nepal- Tech manual- Nepali
9. Cold Room with Cool-Bot Technology- Leaflet- Nepali
10. Storability of potato varieties under ordinary storage condition in Panauti
11. Collection/Sales Centre Operation guideline

Annex 8: Survey Datasheets

Ethnicity of Respondents

	Ethnicity				Gender		Total
	BC	Dalit	Janajati	Newar	Female	Male	
Nawalparasi-East	3.1	0.2	0.5		2.7	1.2	3.9
Chitwan	8.7		8.4	0.2	11.3	6	17.3
Makwanpur	6	0.7	5.8		11.6	1	12.5
Kavre	14.7	1.2	2.9	1.9	11.6	9.2	20.7
Sidhuli	5.3	1	1.2	4.8	4.1	8.2	12.3
Ramechhap	1.2		1		1	1.2	2.2
Syanja	9.4	1	0.5		7.7	3.1	10.8
Kaski	4.6	3.4	0.2		5.5	2.7	8.2
Tanahu	3.9	0.2	3.6		3.9	3.9	7.7
Gorkha		0.5	1.7		1.2	1	2.2
Dhading	1.2		1		2.2		2.2
Total	58.1	8.2	26.7	7	62.7	37.3	100
N	241	34	111	29	260	155	415
						Male	37.30%
						Female	62.70%

Involvement in groups and cooperatives

	Farmers group	Cooperative	N
Nawalparasi-East	87.5	100	16
Chitwan	50	84.7	72
Makwanpur	55.8	84.6	52
Kavre	65.1	80.2	86
Sidhuli	31.4	96.1	51
Ramechhap	88.9	88.9	9
Syanja	66.7	100	45
Kaski	55.9	85.3	34
Tanahu	40.6	37.5	32
Gorkha	88.9	88.9	9
Dhading	100	100	9
Total	57.3	84.3	415

Food Security status

	Food Security status					Total
	3 months or less	3-6 months	6-9 months	9-12 months	12 months and surplus	
Nawalparasi-East	12.5	12.5	12.5	50	12.5	100
Chitwan	13.9	15.3	9.7	27.8	33.3	100
Makwanpur	3.8	9.6	13.5	11.5	61.5	100
Kavre	16.3	20.9	12.8	30.2	19.8	100
Sidhuli		7.8	17.6	27.5	47.1	100
Ramechhap		22.2	22.2	44.4	11.1	100
Syanja		31.1	28.9	24.4	15.6	100
Kaski	20.6	20.6	41.2	14.7	2.9	100
Tanahu	28.1		15.6	15.6	40.6	100
Gorkha	22.2	22.2	22.2	11.1	22.2	100
Dhading	11.1	22.2	22.2	22.2	22.2	100
Total	11.3	16.1	17.8	24.6	30.1	100

Employment in agriculture

		Nawalparasi-East	Chitwan	Makwanpur	Kavre	Sidhuli	Ramechhap	Syanja	Kaski	Tanahu	Gorkha	Dhading	Total
Male fulltime	total number	9	43	43	100	51	9	37	26	27	2	12	359
	Average	0.6	0.6	0.8	1.2	1	1	0.8	0.8	0.8	0.2	1.3	0.9
Male parttime	total number	3	42	36	35	23	9	37	17	26	7	6	241
	Average	0.2	0.6	0.7	0.4	0.5	1	0.8	0.5	0.8	0.8	0.7	0.6
Female fulltime	total number	16	73	60	114	63	9	55	36	33	4	14	477
	Average	1	1	1.2	1.3	1.2	1	1.2	1.1	1	0.4	1.6	1.1
Female parttime	total number	2	31	40	28	17	3	25	12	24	8	6	196
	Average	0.1	0.4	0.8	0.3	0.3	0.3	0.6	0.4	0.8	0.9	0.7	0.5

Grading Status

Grading Status				
Crop	Prod	Sale w.o grading	Sale w grading	% graded
Banana	548.4	428.5	87.6	17.0
Lemon	73.2	49.5	21.1	29.9
Junar	394.7	276	282.6	50.6
Orange	250.4	1402.9	203.3	12.7
Papaya	0	0	0	0.0
Pineapple	5.3	4.8	2.6	35.1
Water melon	0	0	0	0.0
Cauliflower	798.5	880.1	238.6	21.3
Cabbage	423.8	373.2	163.3	30.4
Capsicum	30.5	150.8	4.5	2.9
Cucumber	705.8	519.7	244.6	32.0
Tomato	2399.7	1801.3	466.7	20.6
Radish	267.8	368.9	52.1	12.4
Potato	1777	625.7	1149.3	64.7
Onion	4.8	34.6	4.9	12.4
Garlik	5.1	8.7	15.1	63.4
Carrot	2621.8	2044.5	26320.8	92.8

Income and Expenses

Income and Expenses				
Districts	Income	Expenses	% expenditure	Surplus/deficit
Nawalparasi-East	16,772,500.00	7,332,000.00	43.7	9,440,500.00
Chitwan	54,395,875.00	33,268,050.00	61.2	21,127,825.00
Makwanpur	27,857,425.00	21,990,400.00	78.9	5,867,025.00
Kavre	62,448,460.00	42,485,508.00	68	19,962,952.00
Sidhuli	25,737,716.00	11,999,660.00	46.6	13,738,056.00
Ramechhap	2,548,300.00	25,410,00.00	99.7	7,300.00
Syanja	30,185,510.00	15,232,000.00	50.5	14,953,510.00
Kaski	21,323,335.00	10,785,000.00	50.6	10,538,335.00
Tanahu	19,291,540.00	8,089,500.00	41.9	11,202,040.00
Gorkha	3,428,000.00	1,028,500.00	30	2,399,500.00
Dhading	4,993,150.00	4,062,500.00	81.4	930,650.00
Total	268,981,811.00	160,114,118.00	59.5	108,867,693.00

Change in production and productivity

Change		Nawalparasi-East	Chitwan	Makwanpur	Kavre	Sidhuli	Ramechhap	Syanja	Kaski	Tanahunu	Gorkha	Dhading	Total
Change in Area	Decreased	12.5	22.2	42.3	31.4	9.8	33.3	11.1	23.5	25		22.2	23.6
	Increased	37.5	34.7	3.8	27.9	29.4	11.1	46.7	32.4	9.4		33.3	26.7
	Stable	50	43.1	53.8	40.7	60.8	55.6	42.2	44.1	65.6	100	44.4	49.6
Change in land area 5	Less than 20 %	37.5	51.2	4.2	76.5	60	100	23.1	63.2	45.5		80	51.2
	21-40 %	12.5	31.7	37.5	7.8	15		19.2	21.1	36.4			20.6
	40-50%		12.2	50	7.8	20		50	10.5	9.1		20	20.1
	50-75%	50	2.4	8.3	5.9			7.7	5.3	9.1			6.7
	More than 75%		2.4		2	5							1.4
Change in production	Decreased	18.8	25	46.2	66.3	9.8	66.7	6.7	17.6	31.3		33.3	32.5
	Increased	68.8	37.5	17.3	14	84.3	33.3	84.4	44.1	28.1	88.9	22.2	42.7
	Stable	12.5	37.5	36.5	19.8	5.9		8.9	38.2	40.6	11.1	44.4	24.8
Change in production %	Less than 20 %	42.9	62.2	30.3	71	64.6	100	58.5	81	57.9	100	80	63.1
	21-40 %	14.3	26.7	30.3	18.8	16.7		17.1	14.3	42.1			20.2
	40-50%	7.1	8.9	33.3	7.2	18.8		19.5	4.8			20	12.8
	50-75%	28.6		6.1	1.4			4.9					2.9
	More than 75%	7.1	2.2		1.4								1
Change in productivity	Decreased	6.3	25	32.7	61.6	2	44.4	6.7	14.7	31.3		33.3	27.7
	Increased	68.8	31.9	17.3	12.8	78.4	11.1	75.6	38.2	25	66.7	22.2	38.1
	Stable	25	43.1	50	25.6	19.6	44.4	17.8	47.1	43.8	33.3	44.4	34.2
Change in productivity %	Less than 20 %	50	70.7	46.2	73.4	65.9	100	43.2	83.3	55.6	100	100	65.2
	21-40 %	8.3	26.8	26.9	17.2	19.5		40.5	16.7	44.4			23.4
	40-50%	16.7	2.4	19.2	4.7	14.6		10.8					7.7
	50-75%	16.7		7.7	1.6			5.4					2.6
	More than 75%	8.3			1.6								0.7
Production sale Price	Decreased	18.8	20.8	23.1	45.3	3.9	55.6	11.1	5.9	59.4		44.4	25.5
	Increased	62.5	47.2	40.4	26.7	66.7	11.1	80	76.5	9.4	88.9	22.2	47.7

	Stable	18.8	31.9	36.5	27.9	29.4	33.3	8.9	17.6	31.3	11.1	33.3	26.7
Production sale price %	Less than 20 %	61.5	61.2	54.5	75.8	80.6	100	70.7	85.7	54.5	87.5	66.7	70.4
	21-40 %		34.7	27.3	17.7	11.1		19.5	14.3	40.9	12.5	16.7	21.1
	40-50%	23.1	4.1	12.1	4.8	8.3		7.3				16.7	6.3
	50-75%			6.1				2.4		4.5			1.3
	More than 75%	15.4			1.6								1
Production quantity	Decreased	12.5	23.6	42.3	50	9.8	44.4	15.6	23.5	34.4			28.7
	Increased	62.5	38.9	17.3	17.4	80.4	22.2	73.3	47.1	25	44.4	22.2	40.5
	Stable	25	37.5	40.4	32.6	9.8	33.3	11.1	29.4	40.6	55.6	77.8	30.8
Production quantity %	Less than 20 %	58.3	53.3	51.6	74.1	63	83.3	40	79.2	52.6	100		60.3
	21-40 %	8.3	40	25.8	22.4	19.6	16.7	35	8.3	31.6		50	25.4
	40-50%	8.3	6.7	16.1	3.4	17.4		12.5	12.5	5.3		50	10.1
	50-75%	8.3		6.5				10		5.3			2.8
	More than 75%	16.7						2.5		5.3			1.4
Input price	Decreased	6.3	11.1	11.5	11.6	2		4.4	5.9	50	11.1		11.3
	Increased	81.3	77.8	59.6	46.5	70.6	88.9	86.7	88.2		77.8	100	64.8
	Stable	12.5	11.1	28.8	41.9	27.5	11.1	8.9	5.9	50	11.1		23.9
Input price %	Less than 20 %	42.9	54.1	43.2	51	59.5	87.5	58.5	75	37.5	37.5	44.4	54.5
	21-40 %	14.3	34.4	37.8	14.3	21.6		36.6	21.9	62.5	62.5	11.1	28.8
	40-50%	7.1	9.8	16.2	16.3	13.5	12.5	4.9	3.1			44.4	10.9
	50-75%	14.3	1.6	2.7	8.2	5.4							3.2
	More than 75%	21.4			10.2								2.6
Income from sale	Decreased	18.8	22.2	38	57.1	10	55.6	18.6	23.5	43.8		44.4	31
	Increased	37.5	33.3	20	17.1	68	11.1	79.1	58.8	3.1	44.4		37.1
	Stable	43.8	44.4	42	25.7	22	33.3	2.3	17.6	53.1	55.6	55.6	32
Income from sale %	Less than 20 %	66.7	57.5	55.2	63.5	82.1	83.3	71.4	85.7	60	100	100	69.4
	21-40 %		32.5	27.6	28.8	5.1	16.7	21.4	10.7	40			21.3
	40-50%	11.1	5	13.8	7.7	10.3		7.1	3.6				7.1
	50-75%	22.2		3.4		2.6							1.5
	More than		5										0.7

	75%												
Use of Organic fertilizer	Decreased		12.5	9.6	37	11.8		4.7	5.9	15.6			14
	Increased	100	58.3	38.5	42.5	62.7	66.7	86	67.6	31.3	33.3	33.3	55.8
	Stable		29.2	51.9	20.5	25.5	33.3	9.3	26.5	53.1	66.7	66.7	30.3
Use of organic fertilizer %	Less than 20 %	43.8	54.9	36	77.6	36.8	83.3	48.7	72	40	100		55.2
	21-40 %		29.4	28	15.5	36.8	16.7	33.3	16	46.7			25.1
	40-50%	12.5	9.8	24	5.2	23.7		7.7	12	13.3			11.8
	50-75%	18.8	3.9	8	1.7	2.6		10.3				100	5.7
	More than 75%	25	2	4									2.2
Use of chemical fertilizer	Decreased	56.3	54.9	63.5	31.9	15.7		30.2	26.5	28.1	11.1		36.2
	Increased	31.3	23.9	9.6	47.2	72.5	11.1	39.5	38.2	25	11.1	22.2	35.2
	Stable	12.5	21.1	26.9	20.8	11.8	88.9	30.2	35.3	46.9	77.8	77.8	28.6
Use of chemical fertilizer %	Less than 20 %	42.9	57.9	36.8	59.2	68.9	100	65.6	50	41.2	50		55.5
	21-40 %	42.9	22.8	26.3	14.1	20		6.3	9.1	29.4		100	19.6
	40-50%	7.1	17.5	21.1	5.6	11.1		6.3	36.4	29.4	50		14.6
	50-75%	7.1		15.8	1.4			3.1	4.5				3.3
	More than 75%				1.4			12.5					1.7
Variety change	Decreased	6.7	9.7	31.4	19.7	2	22.2	7		9.4		44.4	12.9
	Increased	86.7	51.4	15.7	35.2	74.5	22.2	88.4	58.8	71.9	88.9	22.2	54
	Stable	6.7	38.9	52.9	45.1	23.5	55.6	4.7	41.2	18.8	11.1	33.3	33.1
Variety change %	Less than 20 %	50	54.5	54.2	74.4	66.7	75	61	95	53.8	100	100	65.7
	21-40 %		31.8	29.2	15.4	7.7	25	24.4	5	34.6			19.2
	40-50%	7.1	6.8	16.7	2.6	17.9		9.8		7.7			8.3
	50-75%	28.6	4.5		7.7	5.1		4.9		3.8			5.3
	More than 75%	14.3	2.3			2.6							1.5
Fruit and vegetable production and productivity	Decreased	6.3	11.1	22	12.5	4	11.1	16.3	5.9	12.5		22.2	11.9
	Increased	75	52.8	16	48.6	66	22.2	60.5	41.2	50	77.8	44.4	49.2
	Stable	18.8	36.1	62	38.9	30	66.7	23.3	52.9	37.5	22.2	33.3	38.9
Fruit and vegetable producti	Less than 20 %	53.8	56.5	63.2	54.5	62.9	100	57.6	87.5	40	85.7	50	59.5
	21-40	7.7	28.3	31.6	22.7	8.6		21.2	12.	45	14.3	50	22.

on and producti vity %	%							5				7
	40-50%		10.9	5.3	18.2	20		9.1		15		11.2
	50-75%	38.5	2.2		2.3	8.6		6.1				5
	More than 75%		2.2		2.3			6.1				1.7
Others	Decreas ed		2.6	14.6						21.4		4.7
	Increas ed		18.4	2.1	42.1	5.3		2.5	3	14.3		9
	Stable		78.9	83.3	57.9	94.7	100	97.5	97	64.3	100	86.3
Others %	Less than 20 %		62.5	50	37.5	100		100	100	40		53.1
	21-40 %		37.5	50	25					60		37.5
	40-50%				37.5							9.4

GESI Status

Issue	agree ment	Nawalpa rasi-East	Chit wan	Makwa npur	Kav re	Sidh uli	Ramec hhap	Sya nja	Kas ki	Tana hu	Gork ha	Dhad ing	Tot al
Project addresses priorities of women, dalits and janajatis	Totally disagre e	6.3	2.8		28.2	2			26.5	6.3		44.4	10.4
	Disagre e	6.3	2.8		21.2	15.7	11.1		23.5	25			11.1
	In betwe en	12.5	38.9	23.1	28.2	21.6		20	26.5	43.8	11.1		26.6
	Agree	18.8	30.6	59.6	15.3	47.1	22.2	48.9	23.5	18.8	88.9	11.1	33.8
	Fully agree	56.3	25	17.3	7.1	13.7	66.7	31.1		6.3		44.4	18.1
This project has efficient, quality, quantity and time bond	Totally disagre e		2.8		25.6	3.9			20.6	3.1		44.4	9.2
	Disagre e	12.5	11.1	26.9	22.1	7.8	11.1		23.5	40.6			16.6
	In betwe en	25	43.1	17.3	39.5	29.4	22.2	15.6	32.4	37.5	11.1	11.1	30.6
	Agree	31.3	23.6	40.4	8.1	52.9	55.6	57.8	23.5	18.8	77.8	33.3	31.8
	Fully agree	31.3	19.4	15.4	4.7	5.9	11.1	26.7			11.1	11.1	11.8
Some of the activities will continue after project terminati on	Totally disagre e		5.6	3.8	25.3	2			11.8	3.1		44.4	9
	Disagre e		6.9	3.8	19.3	11.8			23.5	15.6			10.2
	In betwe en	31.3	45.8	19.2	30.1	43.1		11.6	38.2	50	11.1		31.7
	Agree	25	23.6	48.1	20.	39.2	55.6	67.4	26.	31.3	88.9	33.3	35.

					5				5				9
	Fully agree	43.8	18.1	25	4.8	3.9	44.4	20.9				22.2	13.2
Crop production and productivity has increased due to this project	Totally disagree		2.9		20.2				25.8	3.2		44.4	7.9
	Disagree	12.5	10	25	25	13.7			9.7	16.1			14.3
	In between	18.8	57.1	32.7	34.5	31.4	11.1	4.4	45.2	51.6	11.1		34.2
	Agree	18.8	8.6	28.8	15.5	41.2	66.7	42.2	19.4	25.8	88.9	22.2	26.3
	Fully agree	50	21.4	13.5	4.8	13.7	22.2	53.3		3.2		33.3	17.4
Post harvest loss is decreased due to this project	Totally disagree		2.8	7.7	22.1				17.6			44.4	8.5
	Disagree		8.3	17.3	25.6	20			29.4	28.1			16
	In between	40	47.2	25	34.9	40	33.3	15.6	29.4	37.5	11.1		32.9
	Agree	20	22.2	46.2	12.8	36	44.4	40	23.5	31.3	88.9	44.4	30
	Fully agree	40	19.4	3.8	4.7	4	22.2	44.4		3.1		11.1	12.6
Marketing is easy due to this project	Totally disagree		2.9	5.9	18.8				24.2	3.1		44.4	8.3
	Disagree	37.5	10	17.6	24.7	25.5		2.2	21.2	21.9			17.3
	In between	18.8	34.3	35.3	37.6	45.1	33.3	31.1	39.4	40.6	22.2		35.4
	Agree	18.8	34.3	33.3	14.1	29.4	66.7	55.6	15.2	31.3	77.8	33.3	31
	Fully agree	25	18.6	7.8	4.7			11.1		3.1		22.2	8
This project has supported women dalit and janajati in production, postharvest loss reduction and marketing of fruits and vegetables.	Totally disagree		5.6	7.7	22.1				14.7	6.3		44.4	9.2
	Disagree	6.3	12.5	9.6	30.2	18			26.5	31.3			16.7
	In between	31.3	38.9	19.2	30.2	44	22.2	20	44.1	43.8	11.1		31.9
	Agree	18.8	25	53.8	15.1	26	33.3	60	14.7	18.8	88.9	44.4	30.9
	Fully agree	43.8	18.1	9.6	2.3	12	44.4	20				11.1	11.4

Project activities are sensitized to local partners	Totally disagree		8.3	3.8	22.6				8.8	3.1		44.4	8.5
	Disagree	6.3	6.9	15.4	21.4	19.6	11.1	4.4	35.3	15.6			15
	In between	31.3	43.1	38.5	35.7	35.3	11.1	13.3	32.4	62.5	11.1		34.6
	Agree	12.5	22.2	36.5	15.5	37.3	55.6	53.3	23.5	18.8	88.9	22.2	29.5
	Fully agree	50	19.4	5.8	4.8	7.8	22.2	28.9				33.3	12.3
Project activities are effective even after COVID-19.	Totally disagree		2.8	7.7	24.4				17.6	3.1		44.4	9.2
	Disagree	12.5	9.9	19.2	27.9	25.5			26.5	43.8	11.1		19.3
	In between	43.8	46.5	28.8	29.1	37.3	22.2	11.1	29.4	25	11.1		30.2
	Agree	6.3	18.3	38.5	16.3	33.3	55.6	42.2	26.5	28.1	77.8	33.3	28.3
	Fully agree	37.5	22.5	5.8	2.3	3.9	22.2	46.7				22.2	13
Is female involvement in this project has resulted in practicing joint activities at home	Totally disagree		1.4	3.8	19.8				20.6			44.4	7.5
	Disagree		11.1	13.5	19.8	13.7			23.5	31.3			13.7
	In between		23.6	34.6	38.4	25.5	11.1	4.4	29.4	40.6	11.1		26
	Agree	37.5	43.1	40.4	17.4	37.3	33.3	48.9	26.5	28.1	88.9	33.3	35.2
	Fully agree	62.5	20.8	7.7	4.7	23.5	55.6	46.7				22.2	17.6
Project activities have positively changed women, dalit and janajati empowerment	Totally disagree		1.4	3.8	18.6				20.6			44.4	7.2
	Disagree	6.3	9.7	15.4	25.6	7.8			23.5	34.4			14.7
	In between		25	15.4	34.9	37.3	11.1	2.2	29.4	43.8	11.1		24.6
	Agree	25	38.9	55.8	14	37.3	66.7	46.7	26.5	21.9	88.9	44.4	35.4
	Fully agree	68.8	25	9.6	7	17.6	22.2	51.1				11.1	18.1

Value chain

	Nawalpara si-East	Chitwa n	Makwanp ur	Kavr e	Sidhu li	Ramechh ap	Syanj a	Kas ki	Tanah u	Gorkh a	Dhadin g	Tot al
do you produce yourself for sell												
Yes	93.8	87.5	86.5	67.4	94.1	100	100	94.1	100	88.9	88.9	87.5
No	6.3	12.5	13.5	32.6	5.9			5.9		11.1	11.1	12.5
whom do you sell												
Agrigate			15.4					5.9	3.1			2.7
Bazar				4.7		33.3		2.9			11.1	2.2
Dirrct customer	25	22.2	1.9	4.7	17.6	22.2	8.9	35.3		100		14.7
Wholesal er	75	77.8	82.7	90.7	82.4	44.4	91.1	55.9	96.9		88.9	80.5
where do you sell												
Farm		8.3	21.2									4.1
Local market	87.5	44.4	26.9	29.1	31.4	88.9	22.2	38.2	12.5	77.8	33.3	35.2
Wholesal e	12.5	43.1	48.1	68.6	66.7	11.1	73.3	52.9	87.5	11.1	55.6	57.1
Other		4.2	3.8	2.3	2		4.4	8.8		11.1	11.1	3.6
Do you gice credit to single product producer and seller												
Yes	25	68.1	71.2	60.5	27.5	55.6	31.1	35.3	68.8	66.7	100	54
No	75	31.9	28.8	39.5	72.5	44.4	68.9	64.7	31.3	33.3		46
Total	100	100	100	100	100	100	100	100	100	100	100	100
N	16	72	52	86	51	9	45	34	32	9	9	415

Problems in PH

	Nawalparasi-East	Chitwan	Makwanpur	Kavre	Sidhuli	Ramechhap	Syanja	Kaski	Tanahu	Gorkha	Dhading	Total
Main problems in production and value chain												
Grading												
First	18.8	45.8	67.3	65.1	72.5	66.7	95.6	97.1	37.5	44.4	33.3	63.9
Second	62.5	51.4	26.9	26.7	25.5	33.3	4.4	2.9	59.4	33.3	44.4	31.1
Third	18.8	2.8	5.8	8.1	2				3.1	22.2	22.2	5.1
Packaging												
First	25	38.9	44.2	47.7	52.9	44.4	88.9	94.1	18.8	55.6	66.7	52
Second	68.8	58.3	40.4	46.5	29.4	55.6	11.1	5.9	62.5	33.3	33.3	40.2
Third	6.3	2.8	15.4	5.8	17.6				18.8	11.1		7.7
Transportation												
First	25	47.2	44.2	57	41.2	33.3	68.9	88.2	15.6	33.3	44.4	49.9
Second	62.5	44.4	34.6	33.7	37.3	33.3	22.2	5.9	43.8	11.1	33.3	34
Third	12.5	8.3	21.2	9.3	21.6	33.3	8.9	5.9	40.6	55.6	22.2	16.1
Problem in price fixing												
First	6.3	18.1	21.2	18.6	31.4	22.2	15.6	44.1	3.1	22.2	11.1	20.5
Second	75	56.9	44.2	47.7	35.3	33.3	55.6	44.1	40.6	22.2	44.4	47.5
Third	18.8	25	34.6	33.7	33.3	44.4	28.9	11.8	56.3	55.6	44.4	32
Problem in marketing												
First		31.9	42.3	36	29.4	11.1	11.1	52.9	15.6	11.1	11.1	29.4
Second	43.8	50	28.8	51.2	31.4	66.7	53.3	35.3	43.8	44.4	44.4	43.9
Third	56.3	18.1	28.8	12.8	39.2	22.2	35.6	11.8	40.6	44.4	44.4	26.7
Total	100	100	100	100	100	100	100	100	100	100	100	100
N	16	72	52	86	51	9	45	34	32	9	9	415

Wage rate

	Nawalparasi-East	Chitwan	Makwanpur	Kavre	Sidhuli	Ramechhap	Syange	Kaski	Tanahunu	Gorkha	Dhading	Total
% hh hiring labor	68.8	66.7	78.8	87.2	74.5	88.9	93.3	79.4	93.8	33.3	100	80
Average labor days/year	23.2	33.6	20.9	32.7	27.3	26.5	33.8	23.8	26.6	14	46.9	29.4
Labor wage rate Female without food	427.3	433.9	284.7	457.3	0	471.4	573.7	261.1	750	450	0	366.1
Labor wage rate Female with food	731.8	592.7	450	663.3	414.5	712.5	531.7	529.8	550	400	555.6	558.8
Labor wage rate male without food	518.2	603.3	344.4	751.2	0	457.1	1621.1	466.7	800	500	0	655
Labor wage rate male with food	972.7	965.6	662.2	2217.3	615.8	975	992.7	970.6	653.3	466.7	1155.6	1149.7

Annex 9: List of Project Staff

S.N	Designation	Office Location
1	National Project Director	Kathmandu
2	National Project Manager	Kathmandu
3	Technical Specialist	Kathmandu
4	Horticulture Specialist	Kathmandu
5	Marketing & Value Chain Specialist	Kathmandu
6	Administration and Finance Officer	Kathmandu
7	Administrative Assistant	Kathmandu
8	Agriculture Officer (Consultant)-	Kamalamai Municipality
9	Agriculture Officer (Consultant)	Putalibazar Municipality
10	Agriculture Officer (Consultant)	Gajuri Rural Municipality
11	Agriculture Officer (Consultant)	Kawasoti Municipality
12	Agriculture Officer (Consultant)	Dhulikhel Municipality
13	Agriculture Officer (Consultant)	Vyas Municipality
14	Agriculture Officer (Consultant)	Thakre Rural Municipality
15	Agriculture Officer (Consultant)	Kawasoti Municipality (responsible for Gaidakot, Madhybindu corridor)
16	Driver	Kathmandu
17	Driver	Kathmandu
18	Cleaner	Kathmandu
19	Messenger	Kathmandu

Annex 10: FGD Participants Details

S.N.	Name	Gender	Age	Organization Name	Designation
1.	Ash Kumari Gurung	Female	68	Safal Samajik Udhami Mahila Sahakari Sanstha	Member
2.	Bal Kumari Jamarkatel	"	45	"	Share Member
3.	Lila Maya Gurung	"	48	"	"
4.	Yam kumara Gurung	"	41	"	"
5.	Chameli Pariyar	"	48	"	"
6.	Khaiyu Maya Gurung	"	32	"	"
7.	Churawati Gurung	"	33	"	"
8.	Binita Baral	"	27	"	"
9.	Sarita Thapa	Female	48	Safal Samajik Udhami Mahila Sahakari Sanstha	Member
10.	Sita Maya Gurung	"	46	"	Accounts Member
11.	Rupa Gurung	"	28	"	"
12.	Pate Gurung	"	60	"	Loan Committee
13.	Durpati Gurung	"	50	"	Member
14.	Kala Gurung	"	35	"	"
15.	Rita Gurung	"	39	"	"
16.	Bhadrika Gurung	"	51	"	"
17.	Jhak Bdr. Thapa	Male	43	Jal Devi	Chairman
18.	Tika Ram Thapa	"	70	"	Treasurer
19.	Ranjan Thapa	"	37	"	Sachib
20.	Lal Bdr. Adhikari	"	52	"	Member
21.	Randu Thapa	"	33	"	"
22.	Saran Thapa	"	50	"	"
23.	Shree Pd. Thapa	"	40	"	"
24.	Krishna Rana	"	37	"	"
25.	Bimala Thapa	Female	36	"	"
26.	Manisha Thapa	"	24	"	"
27.	Chameli Thapa (Nepali)	Female	35	Melmilap	Chairman
28.	Ash Kumari Gurung	"	37	"	Sachib
29.	Jhuma Gurung	"	36	"	Member
30.	Shrijana Gurung	"	27	"	"
31.	Sabita Nepali	"	48	"	"
32.	Go Maya Thapa	"	49	"	"
33.	Babita Thapa	"	37	"	"
34.	Kumari Gurung	"	35	"	"
35.	Basudev Badal	Male	43	Ladal Gau Krishi Sahakari Sanstha	Member
36.	Indramani Badal	"	41	"	"
37.	Rashmila Gautam	Female	36	Lali Guras Krishi Sahakari Sanstha	Member
38.	Bishnu Badal	Male	38	"	"
39.	Ram Raja Humagain	"		"	"
40.	Navaraj Raya	"	42	"	"
41.	Usha Kuwar	Female	33	"	Chairperson
42.	Krishna Gautam	Male	46	Makhamali Krishi tarkari Samuha	Member
43.	Narayan Pd. Dahal	"	48	"	"
44.	Atma Lal Tiwari	"	42	"	"
45.	Malati Ghimire	Female	32	Nari Chetana	Member
46.	Mathura Ghimire	"		"	"
47.	Binita Ghimire	"		"	"
48.	Yashoda Ghimire	"		"	"
49.	Satya Laxmi Ghimire	"		"	"
50.	Sushila Ghimire	"		"	"
51.	Durga Ghimire	"		"	"
52.	Sangita Ghimire	"		"	"
53.	Apsara Ghimire	"		"	"
54.	Parbati Ghimire	"		"	"
55.	Maiya Ghimire	"		"	"
56.	Tulsi Giri	"		"	"

57.	Akisha Ghimire	"		Jana Adarsha	"
58.	Tara Ghimire	"		"	"
59.	Maiya Dahal	Female	38	Maheshwori Sacos	Member
60.	Usha Dahal	"	35	"	"
61.	Sabitri Dahal	"	31	"	"
62.	Sumitra Dahal	"	46	"	"
63.	Sushila Dangal Dahal	"	29	"	"
64.	Srijana Bajgain	"	30	"	"
65.	Shanta Dahal	"	40	"	"
66.	Gita Lamechane (Dahal)	"	25	"	"
67.	Narayan Pd. Dahal	Male	54	"	"
68.	Parbati Sapkota Dahal	Female	30	"	"
69.	Sarita Dahal	"	38	"	"
70.	Rita Dahal	"	33	"	"
71.	Ishwori Humagain Dahal	"	37	"	"
72.	Januka Dahal	"	35	"	"
73.	Bal Ram Pokheral	Male	74	Pasupati Beu Aalu Utbadan Samuha	Chairman
74.	Lila Dhar Adhikari	"	59	"	Deputy Chairman
75.	Tulsi Pd Khanal	"	53	"	Treasurer
76.	Tula Ram Bhattarai	"	77	"	Advisor
77.	Thakur Pd. Khanal	"	67	"	Member
78.	Jaganath Pokheral	"	68	"	"
79.	Man Kumar Shrestha	"	53	"	Local Representative
80.	Rishi Ram Bhattarai	"	53	"	Member
81.	Bimala Gaire	Female	31	Pragati Nagar Kisan Krishi Sahakari Sanstha Ltd.	Manager
82.	Sita Adhikari	"	38	"	Management Member
83.	Namkala Bhusal	"	52	"	Management Member
84.	Januka Lamsal	"	44	"	Shop Coordinator/Management
85.	Yam Maya Pun	"	40	"	Farmer
86.	Malina Ghale	"	54	"	"
87.	Nim Kumari Mahato	"	45	"	"
88.	Nabin Karki	Male	24	Dipjyoti Krishak Samuha	Chairman
89.	Gajendra Rayamajhi	"	35	"	Member
90.	Purna Bdr. Magar	"	37	"	"
91.	Bedi Nepali	"	40	"	"
92.	Madhu Sudhan Rana Magar	"	32	"	"
93.	Kancha Man Tamang	"	45	"	"
94.	Ganga Tamang	Female	34	"	"
95.	Pabi Maya Ramtel	Female	52	Bishwo Jyoti Junar Utpadak Sahakari Sanstha	Member
96.	Bhakti Maya Ramtel	"	33	"	"
97.	Shiva Maya Purba Achami	"	32	"	"
98.	Sita Maya Pulami	"	38	"	"
99.	Padam Maya Ramtel	"	45	"	"
100.	Kali Maya Magar	"	47	"	"
101.	Bel Kumari Ale Magar	"	36	"	"
102.	Keshab Raj Paudel	Male	59	Krishi Upaj Bazar Byabasthapan Ltd.	Member
103.	Bishnu Pd. Subedi	"	59	"	Chairman
104.	Durga Bdr. Sunam	"	47	"	Sachib
105.	Lekhnath Parajuli	"	70	"	Member
106.	Sumitra Paudel	Female	36	"	"
107.	Manju Paudel	"	40	"	Deputy Chairman
108.	Ujur Bdr. K.C.	Male	64	"	Treasurer
109.	Ram Pd. Sharma	"	48	Sana Kisan Krishi Sahakari	Manager
110.	Dhan Raj K.C.	"	65	"	Management Member
111.	Saraswoti Chettri	Female	33	Arukha Mahila Bahuudishya Sahakari	Manager
112.	Kalpana Poudel	"	40	"	Chairperson

113.	Jitendra Bdr. Shahi	Male	52	Majbeni Krishi Sahakari	Deputy Chairman
114.	Narayan Pd. Regmi	"	64	"	Member
115.	Gagan Bdr. Khatri	"	68	"	Sachib
116.	Uma Kanta Regmi	"	66	"	Member
117.	Kumar Bdr. Bhujel	"	50	"	Lekha Samiti
118.	Krishna Pd. Regmi	"	53	"	Manager
119.	Bijaya Kumar Thapa	"	57	"	Lekha samyajok
120.	Prem Sharma	"	62	"	Saha Sachib
121.	Hom Nath Timilsina	"	63	"	Committee Member
122.	Samjhana Palli Magar	Female	40	"	Member
123.	Nabin Ale	Male	45	"	"
124.	Phul Maya Sunar	Female	49	Pragati Taja Tarkari Samuha	Member
125.	Surya Maya Gurung	"	52	"	"
126.	Kalpana Panta Dhital	"	35	"	"
127.	Sunita Sunar	"	30	"	"
128.	Bhagwati	"	41	"	"
129.	Suk Maya Sunar	"	30	"	"
130.	Krishna Kumari Sunar	"	60	"	"
131.	Mira Bhattarai	"	60	"	"
132.	Sarkini Sunar	"	60	"	"
133.	Muna Sunar	"	40	"	"
134.	Puja Upreti	Female	34	Digo Bahuudishya Krishak Samuha	Chairperson
135.	Sarita Sedaie	"	25	"	Treasurer
136.	Krishna Maya Upreti	"	65	"	Member
137.	Sushila Syangtang	"	40	"	"
138.	Sita Khatiwoda	"	30	"	"
139.	Sapana Adhikari	"	28	"	"
140.	Laxmi Upreti	"	51	"	"
141.	Goma Upreti	"	40	"	"
142.	Shanta Jamerkatel	"	30	"	"
143.	Sanu Maya Dong	Female	31	Sana Kisan Krishi Sahakari Sanstha Ltd.	Chairperson
144.	Laxmi Tamang	"	32	"	Deputy Chairperson
145.	Ganga Bataula	"	45	"	Member
146.	Isha Adhikari	"	26	"	"
147.	Sumitra Adhikari	"	40	"	"
148.	Urmila Tamang	"	40	"	"
149.	Hira Maya Moktan	"	37	"	"
150.	Shanti Pakrin	"	29	"	"
151.	Phul Maya Dhalan	"	40	"	"
152.	Basanta Kumar Dhalan	Male	42	"	Manager
153.	Saraswoti Dhalan	Female	24	"	Member

Annex 11: KII Participants Details

Kathmandu

S. No.	Name	Position	Organization	Contact No.
1	Mr. Prakash Sanjel,	Joint Secretary, Planning Section	Ministry of Agriculture and Livestock Development	9841277459
2	Ms. Kalpana Sarakar	Portfolio Manager	UNDP	9851110534
3	Mr. Berrnardo Cocco	DRR	UNDP	Contact via Kalpana Sarkar
4	Mr. Shiva Kumar Shrestha	National Project Manager	VCDP	9842946552
5	Mr. Purushottam P. Khatiwada	Horticulture Specialist	VCDP	9851126310
6	Ms Yunhee Cheong	DCD	KOICA	Ruksa KC (Program Officer) - 9841386512
7	Dr. Surendra Shrestha,	Chief	National Horticulture Research Centre, NARC	9849157401
8	Ms. Suprabha Pandey,	Research Officer	NARC	9841018322
9	Dr. Kishor Dahal	Assistant Dean	IAAS, Kirtipur	+9779845046069
10	Prof Dr. Arjun Shrestha	Director, Directorate of Research and Extension	AFU, Rampur	+9779855052791

Chitwan; Khairahani

S. No.	Name	Position	Organization	Contact No.
1	Dhurva Acharya	Administration, Agri. Section	Khairahani Municipality	9841814421
2	Ramchandra Raila	Member	Market Center, Krishi tatha Pasupanchi Upaj Bazar, Khairahani	9865208534
3	Yog Raj Panta	Chairman	Gramin Taja Tarkari tatha Falful Utpadak Sahakari Sanstha Ltd.	
4	Prakash Dallakoti	Deputy Chairman	Gramin Taja Tarkari tatha Falful Utpadak Sahakari Sanstha Ltd.	9845109242

Dhading; Dhunibesi

S. No.	Name	Position	Organization	Contact No.
1	Santosh Khadka	Agri. Officer	Dhunibesi Municipality	9851149963

Kavre; Dhulikhel

S. No.	Name	Position	Organization	Contact No.
1	Mandil Krishna Shrestha		Dhulikhel Municipality	
2	Rabina Ghimire		Dhulikhel Municipality	

Dhading; Dhunibesi

S. No.	Name	Position	Organization	Contact No.
1	Narendra Bhandari	JTA	Devchuli Municipality	

Ramechhap; Khandadevi

S. No.	Name	Position	Organization	Contact No.
1	Bijaya Shrestha	Agri. Technician (4 th)	Khandadevi Rural Municipality	9844412585

Sindhuli;

S. No.	Name	Position	Organization	Contact No.
1	Saroj Phuyal	Agri. Technician	Kamalamai Municipality	9844095690
2	Binita Malki	Member	Bahu Udshya Krishi Sahakari Sanstha, Sunkoshi	9847848108
3	Nirmal Ramtel	Chairman	Junar Utpadan Sahakari Sangh, Golanjor	

Syangja;

S. No.	Name	Position	Organization	Contact No.
1	Bijaya Sharma	Tech. Assistant	Agri. Dev. Section, Kisan Call Center, Phedikhola	9864899074
2	Kamala Jaisi	Tech. Assistant	Putalibazar Municipality, Syangja	9848167342
3	Ramesh Godar	Community FM, Putalibazar, Syangja	FM Radio	9856050091

Kaski; Pokhara

S. No.	Name	Position	Organization	Contact No.
1	Umanath Subedi	Chairman	Farmers' Market, Birauta, Pokhara	9846257403
2	Manohar Kaderia	Senior Agri. Dev. Officer	Pokhara Municipality	9856053320
3	Shalikgram Adhikari	Chairman	Agriculture Knowledge Center, Pokhara	

Agriculture Knowledge Centre

S. No.	Name	Position	Organization
1	Shalikgram Adhikari	Chief	Kaski
2	Yuvraj Pandey	Chief	Chitwan
3	Kul Prasad Tiwari	Chief	Tanahu
4	Tej Prasad Dawadi	Chief	Kavre
5	Iswari Prasad Aryal	Information officer	Syangja

Annex 12: Evaluation matrix

Evaluation criteria: Relevance

Key questions	Data source	Data collection methods/tools	Indicators/success standard	Data analysis
<ul style="list-style-type: none"> How relevant were the overall design and approaches of the project? Was the theory of change presenting a relevant and appropriate vision on which to base the project initiatives? To what extent were the theory of change and assumptions relevant? How This project analyzed the GESI indicators to ensure the theory of Change ? Was the program initiatives the best among the alternatives to address the project's goals and outcomes with the developmental needs of the target groups and communities? How relevant was the reprogramming of the project activities for immediate COVID-19 response to meet local needs? How relevant was the project reprogramming in contributing to recovery priorities after COVID-19? What was the extent to which the project was able to address the needs and priorities of the target groups and communities in the crisis context and changing conditions? Was the project relevant to address the needs and priorities of women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups? Was the project able to address the differential needs women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups? How relevant was the project in terms of national policies and priorities? What was the contribution of the project to the national priorities, policies, and strategies, such as Agriculture Development Strategy? How relevant was the project and what was its contribution to global/regional priorities, policies, and strategies? Was the basis of coverage/selecting of municipalities or cooperatives relevant and appropriate? Were there any unintended positive or negative results? Is there a suitable M&E framework to monitor and support the implementation of the targeted results? How to analyzed the Human rights base approach to enhance the policy in this progerm (CEDAW,SDG Goal, GESI Strategy Mandate and GESI in Value Change 	<ul style="list-style-type: none"> Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) Interviews with project staff management, project partners, stakeholders (government, private sector) and UNDP staff and VCDP staff Review of project documents including progress report Review of COVID-19 impact assessment by GON, VCDP, etc. Review of country support strategy, policies etc FGD with beneficiary groups KII with key stakeholders 	<ul style="list-style-type: none"> Desk review KII FGD Competency analysis HH Survey 	<ul style="list-style-type: none"> Extent to which Project supports national priorities, policies and strategies Extent to which the project is aligned with national priority, SDGs and UNDP's country support strategy Degree to which the project supports aspirations and/or expectations of stakeholders and beneficiaries (incl. women) Number of project indicators with GESI Adequacy of project design and implementation to national realities and existing capacities 	<ul style="list-style-type: none"> Excel program Context analysis using PESTLE framework

Evaluation criteria: Effectiveness

Key questions	Data source	Data collection tools	Indicators/success standard	Data analysis
<ul style="list-style-type: none"> Was the project successful to achieve targeted results? To what extent were the output level results achieved and how did the output results contribute to project outcomes? How effective was the project in mainstreaming human rights and GESI considerations into the project design? How effective was the project in delivering interventions promoting GESI and protecting human rights while addressing the concerns of women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups? How deliberate was the project's targeting of interventions and results to women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups? How effective was the project in ensuring meaningful participation of women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups not just in participation in project activities implementation but also in project decision making? How effective was the project in achieving targeted GESI outcomes and positive changes for women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups? Were there any unintended results? What were the unintended positive or negative results? What could be the possible implications of the intended and unintended results on target beneficiaries/communities and GoN? What were the differential impact of the results on women Dalit, ethnic minorities, PWDs, and other disadvantaged/marginalized and vulnerable groups? Did the project contribute towards the outcome and outputs mentioned the UNDP Country Programme Document and UNDP strategic plan? Did the project contribute towards development results targeted by GoN such as the SDGs and Agriculture Development Strategy? To what extent did the project contribute? What are the key internal and external factors (success & failure factors) that have contributed, affected, or impeded the achievements of the results, and how has the project and the partners managed these factors? To what extent have monitoring arrangements been effective and supported adaptive management? What were the lessons and how were feedback/learning incorporated in the subsequent process of planning and implementation? How effective has the project been in enhancing the capacity of local partners to create enabling environment for value chain development? How effective has the partnership 	<ul style="list-style-type: none"> Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) Interviews with project staff management, project partners, stakeholders (government, private sector) and UNDP staff and VCDP staff Review of fund flow and management cost at project level Beneficiaries groups related data Review of project documents including progress report Review of country support strategy, FGD with beneficiary groups Review of case studies and media reports, training reports Review of target vs achievements (outputs level) KII with project team, partners, beneficiaries, LGs, VCDP/UNDP, CGs (???) - Is it Cooperative Group?, etc. Consultation with CGs (???) Governance, procurement, audit and compliance 	<ul style="list-style-type: none"> Desk review KII FGD Competency analysis Most significant change HH Survey 	<ul style="list-style-type: none"> Level of achievement as per result chain (target vs achievements) Achievement of outputs (qualitative, quantitative) Evidence of adaptive management and/or early application of lessons learned Proportion of women and marginalized in the total direct beneficiaries Number of community led initiatives led by women Proportion of women representation in CGs (??) Number/types of gender responsive technologies introduced by the project 	<ul style="list-style-type: none"> Content analysis Excel program

been for contributing towards achieving project's targeted results as well as shared goal and objectives?

- To what extent the project was successful to create employment and income opportunities to the local people?
- What are the outcome oriented result from the GESi perspective? What are the key measuring factors for the effective implementation of the Human right based approaches (Policy implementation, ensure the women human rights law related to Value chain and development)

Evaluation criteria: Coherence

Key questions	Data source	Data collection tools	Indicators/ success standard	Data analysis
<ul style="list-style-type: none"> • The evaluation will focus on the following key questions on coherence: • What was the extent to which the project interventions fit in the changed contexts? What was the extent to which the project intervention was coherent with GoN's policies and priorities? • What was the extent to which the project was able to identify and strengthen interlinkages and coordination with other interventions carried out by UNDP or GoN? To what extent was the project able to harmonize with other interventions of UNDP and GoN to avoid duplications and build synergies for greater impacts through collaborations, complementarities, and multiplier effects? (Internal coherence) • What was the extent to which the project was able to identify and strengthen interlinkages and coordination with relevant initiatives from different stakeholders, avoid duplications, and build synergies for greater impacts through collaborations, complementarities, and multiplier effects? (External coherence) • How effective was the project's communication strategies and mechanisms in communicating, improving coordination, increasing collaboration, and build partnerships with other interventions of UNDP, GoN and other stakeholders? • Has the partnerships built by the project with local partners including local governments, cooperatives, farmers' association, and other actors along the value chain to created synergies or difficulties? What type of partnership building mechanism is necessary for future partnership? (External coherence) • To what extend the project has been succesful to harmonize and leverage the resources of the UNDP's like minded projects as Cooperative Market Development Programme (CMDP) and Technical Assistance for Micro-Enterprise Development for Poverty Alleviation (MEDPA-TA) and avoid duplication of efforts and the value addition? 	<ul style="list-style-type: none"> • Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) • Interviews with project staff management, project partners, stakeholders (government, private sector) and KOICA, VCDP/UNDP staff • Review of project documents including progress report • Data on Co-funding/co-financing/parallel funding, KOICA, Agr. Ministry etc • COVID-19 context, federalization, local govt. priorities, and other actors viz. 	<ul style="list-style-type: none"> • Desk review • KII • Competency analysis • FGD 	<ul style="list-style-type: none"> • Evidence of project modification based on the external environment • Evidence of synergies and interlinkages with other agencies • Evidence of added value, reduced duplication and foster synergy 	<ul style="list-style-type: none"> • Content analysis

Evaluation criteria: Efficiency

Key questions	Data source	Data collection tools	Indicators/ success standard	Data analysis
<ul style="list-style-type: none"> How efficiently has the project delivered planned interventions and targeted results in terms of quality, quantity, and timing? Were project resources (financial, human, technical) allocated strategically and economically to achieve the project results? Were the project activities implemented as scheduled and with the planned financial resources? Is the relationship between project inputs and results achieved appropriate and justifiable? How appropriate and efficient were the project governance and management structures in generating the expected results? To what extent had the project implementation strategy and execution been efficient and cost-effective? What cost effectiveness measures had the project adopted? Has the communication and outreach of the project been efficient and satisfactory? How the project ensures the voice visibility and decision making power of the female farmer? How do you feel the changes during the project times? How we ensure the Access, control and decision making level of the female farmers and marginalized population? 	<ul style="list-style-type: none"> Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) Interviews with project staff management, project partners, stakeholders (government, private sector) and VCDP/UNDP staff, KOICA staff, Agri. Ministry staff and other stakeholders. Review of project documents including progress report Review of country support strategy, SDG FGD with beneficiary groups Review of case studies and media reports Fund flow mechanism, AWP vs implementation, value for money, procurement guidelines, power delegation, community contribution, equity, co-financing /leverage Timeliness, process efficiency social and public audits, grievance handling mechanism etc. 	<ul style="list-style-type: none"> Desk review KII FGD Competency analysis Case study MIS data 	<p>Implementation and management</p> <ul style="list-style-type: none"> Extent for partners for time and resources, to take over project activities Evidence of clear roles and responsibilities of partners <p>M&E</p> <ul style="list-style-type: none"> Actual use of the M&E system to change or improve decision-making/adaptive management Share of M&E in the budget <p>Financial planning</p> <ul style="list-style-type: none"> Extent to which inputs are available to achieve the expected results Timely delivery of funds, mitigation of bottlenecks. Level of satisfaction of partners and beneficiaries on the use of funds, fund flow mechanism 	<ul style="list-style-type: none"> Content analysis Excel program VfM analysis

Evaluation criteria: Sustainability

Key questions	Data source	Data collection tools	Indicators/ success standard	Data analysis
<ul style="list-style-type: none"> The evaluation will focus on the following key questions on Sustainability: To what extent are the benefits of the projects likely to be sustained after the completion of this project? What are the key factors that will require attention in order to improve prospects of sustainability of Project outcomes 	<ul style="list-style-type: none"> Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) Interviews with project staff management, project partners, stakeholders (government, private sector) and VCDP/UNDP staff and concerning members Review of project documents including progress 	<ul style="list-style-type: none"> Desk review KII FGD Competency analysis HH survey 	<ul style="list-style-type: none"> Extent to which risks and assumptions are adequately reflected in the project document Extent to which the project is likely to be sustainable beyond the project period Extent to which sustainability to 	<ul style="list-style-type: none"> Content analysis Excel program

<p>and the potential for replication of the approach?</p> <ul style="list-style-type: none"> • Are there sufficient government and stakeholder awareness, interest, commitment, and incentives to utilize the tools, approaches, and materials the project developed? • How were capacities strengthened at the individual and organizational level (including contributing factors and constraints)? • To what extent are developed postharvest technologies likely to be adopted after the completion of the project? • To what extent the horticulture value chain will be continued after the completion of the project? • How we measure the women meaningful participation and Gender marker from this project/ • What are the key existing strategy of the GESI base implementation and how it ensures the sustainable woman Human right mechanism for the rural beneficiaries and farmers? 	<p>report, workshop reports</p> <ul style="list-style-type: none"> • FGD with beneficiary groups • Review of case studies and media reports 	<p>the project's results in the future, including financial resources</p>
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Evaluation criteria: Impacts

Key questions	Data source	Data collection tools	Indicators/success standard	Data analysis
<ul style="list-style-type: none"> • The evaluation will focus on the following key questions on Impact: • What is the project impact in qualitative as well as quantitative terms from a broader development and system building perspective? What would the development have been look like without the project interventions in the area of concern? • What are the positive or negative, intended, or unintended, changes brought about by the project's interventions? • How have cross cutting issues, such as gender equality and reaching the most vulnerable, have been effectively taken up? What has been the differential impacts on women, Dalit, ethnic minorities, and other disadvantaged, marginalized and vulnerable groups? • To what extent has the support enabled citizen's trust in local government and its systems, particularly those of women, Dalit, ethnic minorities, and other disadvantaged, marginalized and vulnerable groups? • What is long term project influence on agriculture value chain development in Nepal? • What are the key impact that can measure in the GESI Data? 	<ul style="list-style-type: none"> • Outcome level indicators analysis and review (UNDP), • Review of progress reports, • FGDs and KII with beneficiaries and stakeholders • Resilient and inclusive economic recovery-indicators definition 	<ul style="list-style-type: none"> • Desk review • KII • FGD • Competency analysis • HH Survey 	<ul style="list-style-type: none"> • Extent to which the level of changes in people's lives, livelihoods with increased resilience and accessibility 	<ul style="list-style-type: none"> • Content analysis • Excel program

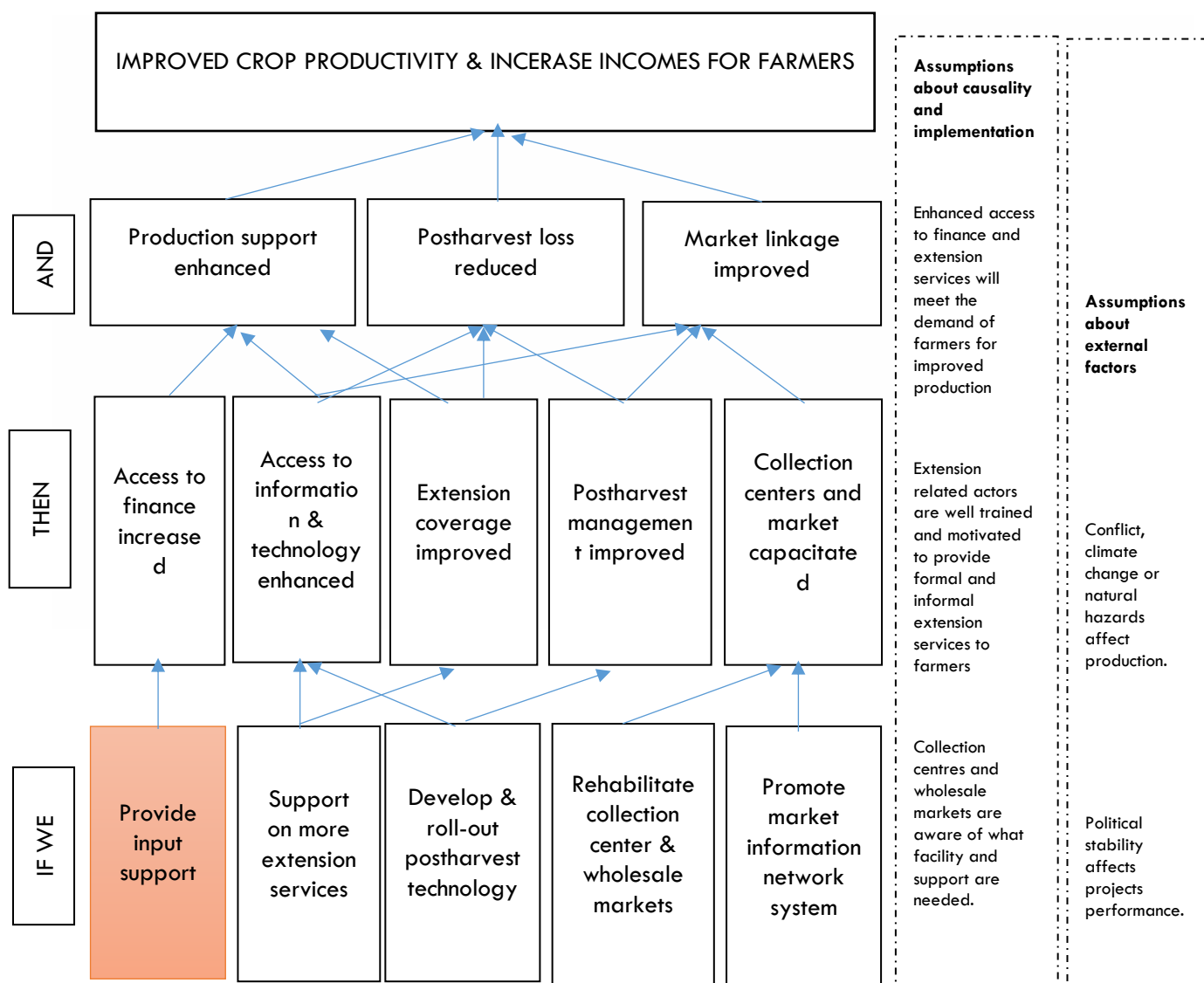
Evaluation criteria: GESI

Key questions	Data source	Data collection tools	Indicators/success standard	Data analysis
<ul style="list-style-type: none"> To what extent issues of gender and marginalized groups have been addressed in the design, implementation and monitoring of the project? To what extent the project approach was effective in promoting gender equality and social inclusion - particularly focusing on women and socially disadvantaged groups? To what extent the project had promoted positive changes in women and marginalized groups including persons with disabilities? Were there any unintended effects? 	<ul style="list-style-type: none"> Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) Interviews with project staff management, project partners, stakeholders (government, private sector) Review of project documents including progress report FGD with beneficiary groups Review of case studies and media reports Data disaggregation in GESI targeted activities, GESI analysis in project design Analysis of data disaggregated by gender, ethnicity, disability, anecdotes from field, composition of CGs (leadership), 	<ul style="list-style-type: none"> Desk review KII FGD Competency analysis Case study HH Survey 	<ul style="list-style-type: none"> Level of achievement (as laid out in the log-frame, target vs achievements) Achievement of GESI outputs (qualitative, quantitative) 	<ul style="list-style-type: none"> Content analysis Excel program

Evaluation criteria: Human rights

Key questions	Data source	Data collection tools	Indicators/success standard	Data analysis
<ul style="list-style-type: none"> To what extent Dalit, ethnic minorities, women and other disadvantaged and marginalized groups have benefitted from the work of the project and with what impact? To what extent the project have integrated Human Rights based approach in the design, implementation and monitoring of the project? Have the resources been used in an efficient way to address Human Rights in the implementation (e.g. participation of targeted stakeholders, collection of disaggregated data, etc.)? 	<ul style="list-style-type: none"> Desk review of project design and technical documents; national policies and strategies (including GoN, UNDP) Interviews with project staff management, project partners, stakeholders (government, private sector) Review of project documents including progress report KII and FGD with beneficiary groups Review of case studies and media reports 	<ul style="list-style-type: none"> Desk review KII FGD Competency analysis Case study 	<ul style="list-style-type: none"> Level of achievement (as laid out in result chain) Achievement of human rights outputs (qualitative, quantitative) and description of activities 	<ul style="list-style-type: none"> Content analysis Excel program

Annex 13: VCDP Theory of Change



VCDP Theory of Change

Annex 14: UNEG Code of Conduct

UNEG Code of Conduct

Annex 2: United Nations Evaluation Group Code of Conduct for Evaluation in the UN System

Evaluation Consultants Agreement Form

To be signed by all consultants as individuals (not by or on behalf of a consultancy company) before a contract can be issued.

Agreement to abide by the Code of Conduct for Evaluation in the UN System

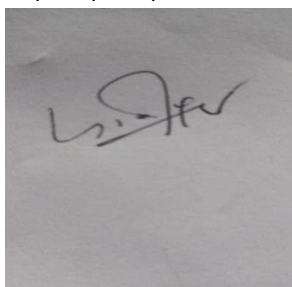
Name of Consultant: Janaki Prasad Khanal

Name of Consultancy Organisation (where relevant): PRISM CONSULTS I. L. (P) LTD.

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at (place) on (date) 30 November, 2022, Kathmandu

Signature:

A photograph of a handwritten signature in dark ink on a light-colored piece of paper. The signature is stylized and appears to be 'J. Prasad Khanal'.

UNEG Code of Conduct

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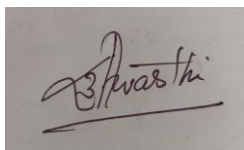
Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: Bishnu Dutta Awasthi

Name of Consultancy Organisation (where relevant): PRISM CONSULTS I. L. (P) LTD.

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at (place) on (date) 30 November, 2022, Kathmandu

A photograph of a handwritten signature in dark ink on a light-colored surface. The signature is cursive and appears to read 'B. Awasthi'.

Signature:

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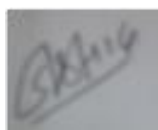
Name of Consultant: Durga Prasad Pandit

Name of Consultancy Organisation (where relevant): PRISM CONSULTS I. L. (P) LTD.

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at (place) on (date) 30 November, 2022, Kathmandu

Signature:



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Name of Consultant: Sawar Basnet Thapa

Name of Consultancy Organisation (where relevant): PRISM CONSULTS I. L. (P) LTD.

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Signed at (place) on (date) 30 November, 2022, Kathmandu



Signature:

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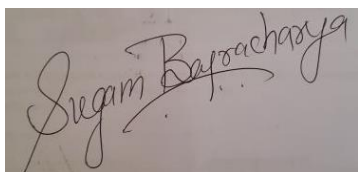
Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: Sugam Bajracharya

Name of Consultancy Organisation (where relevant): PRISM CONSULTS I. L. (P) LTD.

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at (place) on (date) 30 November, 2022, Kathmandu

A photograph of a handwritten signature in black ink on a light-colored surface. The signature is written in a cursive style and reads "Sugam Bajracharya".

Signature: