

Project Completion Report Validation

High-Value Agriculture Project in Hill and Mountain Areas

Federal Democratic Republic of Nepal

Date of validation by IOE: March 2020

I. Basic project data

			Approval (in respective currency)	Actual (in respective currency)
Region	Asia and the Pacific Region	Total project costs	18,872,000 (US\$)	Not Available ¹
Country	Nepal	IFAD loan and percentage of total	4,750,000 (SDR)	4,750,000 (SDR)
Loan number	G-I-DSF- 805 L-I-796 Project ID 1471	IFAD grant	4,750,000 (SDR)	4,738,650 (SDR)
Type of project (subsector)	Rural Development	Borrower	134,495,400 (Nepali Rupees)	135,760,680 (Nepali Rupees)
Financing type	IFAD Loan IFAD Grant (DSF)	SNV	696,000 (US\$)	887,670 (US\$)
Lending terms*	DSF (yellow)	Beneficiaries	43,812,600 (Nepali Rupees)	57,952,990 (Nepali Rupees)
Date of approval	17/12/2009			
Date of loan signature	05/07/2010	Number of beneficiaries	13,500	15,965
Date of effectiveness	05/07/2010			
Loan amendments	-	Loan closing date		31/03/2019
Loan closure extensions	Changed from 31/03/2018 to 31/03/2019 (1 extension)	Mid-term review		February 2014
Country programme managers ²	Tarek Kotb (current)	IFAD loan disbursement at project completion (%)		100%
Regional director(s)	Nigel Brett (current) Hoonae Kim Thomas Elhaut	Date of the project completion report		07/10/2019
Project completion report reviewer	Prashanth Kotturi			
Project completion report quality control panel	Fumiko Nakai Eoghan Molloy Fabrizio Felloni			

Source: Project Completion Report (PCR).

* Loan on highly concessional terms to be repaid over 40 years, including a grace period of 10 years, with a service charge of three fourths of one per cent (0.75 per cent) per annum. Grant under the debt sustainability framework (DSF)

¹ This is because each financier's final contributions are noted in different currencies.

² Previous country programme managers: Louise McDonald; Lakshmi Moola; Benoit Thierry; Khalid El Harizi; Ron Hartman

II. Project outline

1. **Introduction.** The High Value Agriculture Project in Hill and Mountain Areas (HVAP) was a project supported by IFAD and implemented by the Ministry of Agriculture and Livestock Development of the Government of Nepal. Out of the total project cost of US\$18.9 million, IFAD provided majority of the support through a combination of loan and grant valued of US\$15.3 million. The rest of the project cost was co-financed by the Government of Nepal, The Netherlands Development Organization (SNV), agribusinesses, and beneficiary contributions. The project aimed at addressing the development challenges in rural areas of Nepal through inclusive value chain development for high value agricultural commodities. The project was designed to contribute to the Government of Nepal's twin goal of poverty reduction and improved food security through increased productivity of high value agricultural crops and livestock. The project covers seven highly vulnerable hilly and mountainous districts in the Mid-Western Development Region (now Karnali province, since February 2018).
2. **Project area.** HVAP interventions covered 126 village development committees in seven districts including Achham district which is currently in State 7, Dailekh, Jajarkot, Jumla, Kalikot, Salyan and Surkhet districts which are currently in State 6 (Karnali province).
3. **Project goal, objectives and components.** The overall goal of the project was the reduction of poverty and vulnerability of women and men in hill and mountain areas of the Mid-Western Development Region. Expected project outcomes were:
 - a. *Improved commercial relations and partnerships* between agricultural/ Non-timber forest produce (NTFP) market operators and producers result in profitable, efficient, market-orientated production of high value commodities for 13,500 beneficiary households.
 - b. *Increased participation and access* of poor marginal producers in high value commodity value chains and agricultural/NTFP markets.
 - c. Small poor farmers and other rural *producers benefit from sustainable increases in volume and value of production* as a result of improved production/collection, value addition and sales of high value niche market products.
 - d. Enhanced environment and *strengthened local capacity* to support market driven/value chain initiatives.
4. **Target group.** The project had adopted a three-dimensional targeting and outreach approach: (i) focus on road corridors and selection of value chains based on walk time from road head; (ii) focus on poverty inclusion; and (iii) social inclusion. Women constituted 64 per cent (target 60 per cent) of the total targeted producer organizations' members whereas Dalit (17 per cent) and Janjati (14 per cent) constituted 31 per cent (target 25 per cent). About 90 per cent of the project beneficiaries were from the poor category. Commodities were selected based on travel time required to the nearest road-head with focus on off-season Vegetables (OSV) near road heads within three-hour to and from walk time; ginger, turmeric and apple within six hours and timur, goat and vegetable seeds within 10 hours to and from walk time.
5. **Component 1: Inclusive Value Chain Development.** The project engaged Agriculture Enterprise Center (AEC) of Federation of Nepalese Chambers of Commerce and Industry and seven District Chambers of Commerce and Industry (DCCIs) to support the project in conducting multi-stakeholder platform workshops (MSPs) and in establishing market linkages. The project also identified existing producer groups and created new user groups and built their capacity to engage with private sector partners through contractual modalities and in MSPs. Originally, there were two different components dealing with community based

producer groups to enhance productive and marketing capacity and with institutional and private sector companies to enhance links to producer groups. However, post mid-term review these components were merged to create the above component titled 'Inclusive value chain development'.

6. **Component 2: Service Market Development.** This component was included after the mid-term review on account of disconnect between project beneficiaries and government line departments. The project has made efforts to expand the private service provider network and also agro-vet centres. The project has supported private service providers by providing investment support to those investing in their own capacity building and also to purchase equipment required for service provision. The project implemented a modality of identifying and supporting local resource persons who are the members of the producer organizations (POs). About 50 per cent of the POs/Cooperatives access services from the private service providers.
7. **Component 3: Project Management.** The Ministry of Agriculture and Cooperatives (MoAC) was the implementing agency for government. The project steering committee was chaired by the ministry's Secretary. The head of the project management unit (PMU), based in the district of Surkhet, was a senior staff of the MoAC. The majority of experts from the PMU were contracted, with only the project manager, accounts officer and office administrator coming from MoAC. The SNV team, which was responsible for the implementation of component 1, and for helping coordinate activities in component 2, was an integral part of the PMU and based in the project offices. SNV also assumed the responsibility for supporting knowledge management under the project. AEC also worked with the SNV team to ensure organization of MSPs and linkage to markets.
8. **Financing.** The breakdown of financing by financier is given above in the basic project data table. IFAD is the main financier with some co-financing from the government. In terms of component, the first component on inclusive value chain development is the biggest. The amounts at project closing in US dollar terms are not available by financier. The project was foreseen to cost 1.472 billion Nepali rupees while the actual disbursement was 1.791 billion Nepali rupees. This was because of the depreciation of Nepali rupee against US dollar.

Table 1
Component costs (in Nepali Rupees)

<i>Name of the component³</i>	<i>Amount (at approval, in 000's NPR)</i>	<i>% of allocation</i>	<i>Amount (actual, in 000's NPR)</i>	<i>% of allocation</i>	<i>% achievement (actual vs. approved)</i>
Inclusive Value Chain Development	959 158	65	1 321 620	70	137.79
Service Market Strengthening	110 292	8	73 877	7	66.98
Project Management	402 597	27.3	395 861	23	98.33
Total	1 472 047		1 791 359		121.6

Source: PCR.

³ Components after the redesign during mid term review

Table 2

Costs by financier

<i>Name of the financier</i>	<i>Amount (at approval in 000's NPR)</i>	<i>Amount (Actual in 000's NPR)</i>	<i>Amount (at approval in 000s US\$)</i>
IFAD (50% loan and 50% grant)	1 192 042	1 387 038	15 282
Government	54 311	135 761	1 724
SNV	134 495	88 723	696.3
Private sector	47 385	121 884	607
Beneficiaries	43 813	57 953	562
Total	1 472 047	1 792 259⁴	18 871

Source: PCR.

9. **Intervention logic.** The project proposed commercially oriented production and marketing systems, through tailored technical, infrastructural, financial and organisational support that benefit producers from being included in a sustainable and profitable way in selected, profitable and sustainable agriculture value chains. This was to be achieved through business relationships with other private actors (traders, processors, exporters etc.) in order to meet market demands, increase production, productivity and income and, overall, contribute to national agricultural growth.
10. The solutions identified by the project included: (i) facilitating a MSP process through which the value chain actors (producers, private agribusinesses/traders, service providers, and public sector) can develop a common vision, build trust amongst them and identify concrete business proposals in response to clear market opportunities; (ii) combining strategically public and private sector funds through a grant mechanism and advice to address the needs of smallholders and agribusinesses in terms of access to market, technology, good agricultural practices and affordable credit; (iii) reducing production and transportation costs and post-harvest losses through aggregation, packing and sorting and reduction in the number of market intermediaries; (iv) supporting small community infrastructure to link villages close to the production cluster to increase production with links to the market; and (v) providing additional support to poor and vulnerable groups that are unable to bear the risk and also make investment in commercialization.
11. **Delivery of outputs.** The components at design were: (i) Component 1 - Pro-Poor Value Chain Development; and (ii) Component 2 - Inclusion and Support for Value Chain Initiatives. Post mid-term review, these two components were merged into one component and renamed as "Inclusive value chain development". A new component "Service Market Strengthening" was introduced to support required services (technical, financial and business) through training private service providers within the value chains.
12. **Output 1.1. PO/Cooperatives and Agribusinesses provided with value chain support:** At appraisal the project envisaged working with 18 value chains. During implementation assessments of 12 value chains were conducted and out of them seven value chains were identified for support. Off-season vegetables, goat, ginger, turmeric, apple, vegetable seeds and timur value chains were selected based on the criteria of being pro-poor with low entry barriers. The off-season value chain consisted of vegetables such as cole crops, bean/pea pod, tomatoes, green chilli and dried chilli. The project engaged seven local NGOs (one for each district) for group mobilisation and for implementing value chain related activities;

⁴ The reason for the discrepancy of 900,000 NPR between total for actual costs of by financier and those by component are unclear.

seven coordinators and 30 social mobilizers were employed. MSP was introduced which facilitated inclusive value chain development in the project.

13. The project in total released NPR 19.1 million to 95 POs/Cooperatives with an average of NPR 201,000 per PO/Cooperative for enhancing their productive capacity through physical assets such as small on-farm irrigation and storage, in line with producer group priorities. The project has trained 6,228 producers (57 per cent women) in various technical aspects related to crop production and livestock. As against the target of 2,500 persons, 2,394 producers (96 per cent of target) have been trained in improving the marketing practices such as collective marketing, operation of collection centres, and quality aspects such as cleaning, grading, sorting, suitable weight for selling live goat etc. Business literacy classes covered 8,617 persons (98 per cent women) against the target of 700 persons. In addition, the project has also trained 1,049 staff of service providers including NGOs, and government service providers on social mobilisation, agriculture insurance, government's agriculture strategy and technical aspects.
14. **Output 1.2 - Poverty and spatial inclusion fund support provided.** The project introduced a poverty inclusion fund to support resource poor households. As part of the gender and social inclusion plan, the project developed two instruments to support both resource poor members of producer organizations and cooperatives and those POs and cooperatives with large number of women and poor members. The project had identified 158 risk averse households who are very poor and enabled them to benefit from project interventions. The project in total supported 23 sub-projects under the poverty inclusion fund with a grant support of NPR 3.4 million. The project established a spatial inclusion fund to support POs/Cooperatives to build critical infrastructure that economically excludes these households. The project has supported nine sub-projects with a grant support of NPR 12.13 million. These sub-projects have been implemented in only three of the seven districts. HVAP supported 22 action research and demonstrations with an outlay of NPR 8.42 million of which NPR 7.61million. These subjects cover Surkhet, Jumla, Salyan and Kalikot with no sub-projects in Achham, Dailekh and Jajarkot.
15. **Output 1.3 - Sector development support provided.** The project provided two types of support under this. They include: (i) Sector Development Fund (SDF); and (ii) action research and demonstrations. The project implemented 19 sub-projects under SDF against a target of 10, which included construction of public goods with benefits on a sector wide basis such as wholesale markets. The total amount provided under SDF was NPR 59.93 million. SDF support was also concentrated in Surkhet district (57.8 per cent) with no SDF support in Achham and Jajarkot districts. The project supported 22 action research and demonstrations with an outlay of NPR 8.42 million. These sub-projects cover Surkhet, Jumla, Salyan and Kalikot with no sub-projects in Achham, Dailekh and Jajarkot.
16. **Output 2.1. Service marketing strengthening.** During the programme 127 government department staff were trained on various aspects of value chains and service markets. In addition, international exposure visits were conducted for line departments and project staff. The project has supported 108 private service providers against a target of 130. The project has worked with the insurance board of Nepal and facilitated development of insurance products for ginger and turmeric value chain farmers and facilitated apple value chain farmers to avail of weather-based insurance. The project developed 63 private and 29 public (agriculture and livestock technicians) persons as agents for selling the crop and livestock insurance policies.

III. Review of findings

17. The findings of this PCRV are informed by the **desk review of programme documents, including PCR, and the country strategy and programme**

evaluation (CSPE) in Nepal undertaken in 2019, which also involved visits to HVAP project sites.

A. Core criteria

Relevance

18. **HVAP's consistency with IFAD's country strategic opportunities programme (COSOP) and national policies.** HVAP was approved in 2009 and completed in 2018. Thus, the project spans two COSOPs. The COSOP of 2006 highlighted value chain under Strategic Objective 1, 'increased access to economic activities'. Even under COSOP 2013 value chains contribute to Strategic Objective 1 viz. 'Promote rural income diversification and stimulate employment.' HVAP's value chain approach is aligned with Nepal's 'Agriculture Development Strategy (ADS)' of 2014 that has the following vision: "A self-reliant, sustainable, competitive, and inclusive agricultural sector that drives economic growth and contributes to improved livelihoods and food and nutrition security".
19. **Relevance of design.** The project targeted the Mid Western region (now province 6), which has one of the highest stunting rates and poverty rates in Nepal. According to the CSPE Nepal report, the seven target districts figure among the 10 least developed districts of Nepal. The project intended to ensure the participation of women (target of 60 per cent of beneficiaries), dalits⁵ and janajatis⁶ (combined target of 25 per cent). The project was able to maintain the targets in the course of implementation. The market-driven approach developed in the original project design was relevant. Starting from the market demand and turning back to the upstream of the value chain (the farmer) to select target groups, allows increasing the opportunities for smallholders to access an existing market and thus be market-led. The project envisaged a participatory consulting approach in its original design and maintained this approach through its evolving design and implementation (MSPs and POs).
20. HVAP intended to select **agribusinesses (micro, small and medium enterprises) as the entry point for operations.** This has largely held true in implementation. What this means in practice is that the programme first scouted for already functioning agribusinesses in the selected value chains. These agribusinesses include both small, local agribusinesses to medium scale enterprises dealing with provincial and national markets, and in one case the international market. Examples of local businesses include local butcheries in goat value chain, local seed stockists and sellers in vegetable seed value chains etc. Once these agribusinesses had been identified the programmes looked for smallholder producers already producing the selected commodities in the target districts. In addition, the programme also helped certain poor sections start production and participate in these value chains. The programmes linked the agribusiness and the producers through mechanisms such as MSPs. In the course of the CSPE mission this approach was found to be relevant in terms of linking agribusinesses and target groups. To that extent, the overall design of value chain interventions were found to be practical and simple and this helped in speedy implementation after initial challenges due to earthquake of 2015 and political unrest were overcome. Most of the programme activities were implemented in the final two and half years of the programme.
21. Participatory consultation with all public and private sector stakeholders at local, regional and national level was undertaken through MSPs, which was found to be highly relevant in the given context. It was a platform to build trust among value chain actors. A microfinance component was not planned in this project. However, the programme had envisaged facilitating linkages of groups with financial institutions for credit subsequent to mid-term review of the project which was not

⁵ Downtrodden castes.

⁶ Indigenous people.

very successful. In the course of the field visits for the CSPE it was found that most of the existing financing needs were met through existing savings and credit groups. Value chain financing is planned for Agriculture Sector Development Programme (ASDP), the follow-on project.

22. The project also responded to subsequently identified gaps, such as the lack of service provision to producer groups, through a redesign of the project. At mid-term review an additional component on service market strengthening was added to address the lack of extension services and technical backstopping to the producer groups. Under this component, the project built a cadre of private service providers and capacitated them.
23. Social mobilization was planned in the project design report to be managed by local NGOs to enable strengthening of existing groups and cooperatives and formation of new ones. The programme implementation unit took over the responsibility of social mobilization after September 2017 due to issues around procurement. This takeover by programme implementation unit led to a higher concentration of household outreach in Surkhet (where the PMU is based) and surrounding district and lesser so in others.
24. In light of the above analysis, the relevance of HVAP is rated as **satisfactory (5)** the same as the rating of the PCR.

Effectiveness

25. **Outreach and outputs:** The project supported 27 agri-businesses against the target of 55, and 193 private service providers against the target of 130. In total, the project has supported 456 POs/cooperatives against the target of 500 covering 15,965 direct beneficiaries against the target of 13,500 in seven value chains. The value chains supported are: (i) apple; (ii) ginger; (iii) goats; (iv) OSV; (v) turmeric; (vi) timur; and (vii) vegetable seed. OSV was the largest value chain with 4,223 beneficiaries, while vegetable seed had the lowest coverage with 450 beneficiaries.

Table 3

Outreach by value chain

Value chain	Outreach
Apple	2 107
Ginger	1 445
Goat	3 759
Off-season vegetable	4 223
Timur	2 205
Turmeric	1 766
Vegetable Seeds	450
Total	15 965

Source: PCR.

26. The project supported 151 POs/Cooperatives to enter into formal contracts with the agri-businesses/traders specifying type of produce, volume and price. During the course of CSPE field visits, it was found that formal contracts were more common in cases of commodities for export and those procured once in a year, such as timur, ginger, turmeric and apple. In the OSV and goat value chains, informal contracts were more prevalent. The markets for these value chains were also found to be more local and regional, and the nature of transactions informal. HVAP had four outcomes listed at design, which are listed below and effectiveness will be assessed based on the achievement on each of these.

27. **Improved commercial relations and partnerships between agricultural market operators and producers result in profitable, efficient, market-orientated production of high value commodities for 13,500 beneficiary households.** The programme supported MSPs to facilitate partnerships between various stakeholders in the value chain. The project also engaged AEC and DCCIs to support the project in conducting MSPs and to provide market information. As of May 2018, six out of seven DCCIs were willing to continue supporting local value chains and MSPs, subject to availability of resources. In outcome terms, an impact assessment on HVAP carried out by the IFAD's Research and Impact Assessment Division shows that treatment households are more likely to sell their crops through traders in both wet and dry seasons. Households in the treatment group are 4.7 percentage points more likely to sell their crops to a trader during the wet season and 5.6 percentage points more likely to sell their crops to a trader during the dry season, significant at 1 per cent level. As has been mentioned earlier in this section, most of the outreach consists of the goat and off-season vegetable value chains and these value chains were highly informal in nature. Thus, the commercial relationships established were not always codified in a contract.
28. **Increased participation and access of poor marginal producers in high value commodity value chains and agricultural/NTFP markets.** There is no data to elaborate on this outcome and data, which would feed into such outcome, have been mentioned in the other three outcomes. For example, timur is a non-timber forest product, information on which is covered elsewhere in this section.
29. **Small poor farmers and other rural producers benefit from sustainable increases in volume and value of production because of improved production/collection, value addition and sales of high value niche market products.** Results show that the number of crop rotations cultivated by farmers in the treatment group increases by 0.5 per cent relative to that of the control group during the wet season (May to October), but not for the dry season (November to April). Thus, in volume terms, the production has not seen increases per se. The impact survey reports substantial increases of target groups as compared to the incomes of control groups (as covered under rural poverty impact section later). However, in the absence of any production increases, the project appears to have increased the value of production through higher prices (see section on rural poverty impact).
30. **Enhanced environment and strengthened local capacity to support market driven/value chain initiatives.** As mentioned above, the project supported agribusinesses and producers' organizations. MSPs have been able to bring together stakeholders across value chains and foster collaboration between various actors in various value chains. In addition, the programme has also built the capacity of business development service providers. The project had trained 193 service providers against a target of 131, comprising 108 private service providers and agro-vets and the 85 local resource persons and soil testing technicians. In all, 127 government staff were trained by the project against the target of 21 with a view to improve service provision to the producer organizations. These extension service providers were found to be sustainably delivering services to the target groups and others in a sustainable manner.
31. In summary, the project was able to connect smallholders to local, regional, national and international markets. In most cases, these linkages were found to be informal in nature and the target groups were linked to local and informal markets. The project created a forum for forging contractual relationships between smallholders and agribusinesses. In addition, the project also built a cadre of private sector service providers and extensionists to ensure market driven and sustainable services to target groups. In light of the above, the PCRV concurs with the rating given by the PCR and rates effectiveness as **satisfactory (5)**.

Efficiency

32. The programme has seen nearly 100 per cent disbursement. The project has utilized 100 per cent of the IFAD loan allocation of SDR4.75 million while it has used 99.76 per cent of the IFAD grant of SDR4.75 million. The component wise expenditure is also found to be satisfactory, as stated in table 1 above. In terms of disbursement, the project had slow start-up and the disbursement was low in the initial years. To reinforce this point, and as per the disbursement records from IFAD's internal accounting system, IFAD disbursed 60 per cent of the funds in the final three years of the project's operations. HVAP experienced delays in start-up and disbursement due to the initially limited staff capacity, turnover and low level of operational support in the field. It also took some time to conduct preparatory work by SNV on which value chains to engage and subsequently for the project implementation unit to fully operationalize the project accordingly. In addition, force majeure events such as the earthquake of 2015 and subsequent political unrest have also led to further delays.
33. The project completion report of HVAP also contains an analysis of the net present value of the different value chains. The PCR states that goat and off-season vegetable value chains, alongside vegetable seeds are the only value chains with a positive net present value. Goat value chain is estimated to have an internal rate of return of 37 per cent while off-season vegetable is estimated to have an internal rate of return of 25 per cent. This is one of the explanations for the large concentration of beneficiaries in goat and off-season vegetable value chains in HVAP with relatively modest participation in other value chains, as covered under table 3 above. The field visits in the course of the 2019 CSPE confirmed the relative profitability of off-season vegetable value chain and goat value chain. The overall internal rate of return is calculated at 14 per cent against the ex-ante estimation of 26 per cent.⁷ The benefit-cost ratio was quoted at 1.07 as compared to 1.65 estimated at design. Thus, overall, the project had a much lesser benefit cost ratio and internal rate of return compared to that envisaged at design. This is driven by the less than expected returns from value chains other than goats and off-season vegetables.
34. The project design estimated project management costs of 27.3 per cent of the total project funds and, as of closing of the project, spent 23 per cent of its total funds on project management. The project had estimated an investment per household ratio of US\$1,350, with actual investment being at US\$1,398 at the end of the project.
35. In light of the analysis above, the PCR rates efficiency as **moderately satisfactory (4)**, lower than the rating by the Programme Management Department (PMD) of satisfactory.

Rural poverty impact

Household income and assets

36. The IFAD's Research and Impact Assessment Division conducted an impact assessment in December 2018. Overall, the impact survey suggests that total household income growth among treatment households is 36.8 per cent higher than among control households. In absolute terms, household income for project households increased by 56,466 rupees per year relative to control households. The growth in treatment household income by 36.8 per cent exceeds the project goal of increasing income by 30 per cent and demonstrates the success of HVAP intervention. Further, total household income increased by 41.2 per cent in the treatment group for non-dalit, janjati and ethnic minority households and by 16.4 per cent for dalit, janjati and ethnic minority households. The survey finds that the

⁷ The design report does not state the expected internal rate of return for the entire project but PCR elaborates that the appraisal estimate was 26 per cent. The Project Design Report contains the internal rate of return for selected project activities, which excludes the capacity building activities or for benefits accrued to private sector agribusinesses.

growth in total household income of project households primarily came from growth in crop and livestock incomes. This was accompanied by a decrease in remittance flow indicating two things. First, many of the target household members were found to be staying back in their villages instead of migrating for livelihoods. Second, most of the income increases noted above can be attributed to crop and livestock activities.

37. Crop incomes increased by about 50 per cent among project households and livestock incomes grew by about 93 per cent compared to control groups. This increase means that treatment households earn 15,333 Nepali rupees more than control households per year from crop cultivation and 19,231 Nepali rupees more than control households per year from livestock keeping. Comparing the levels of increase in income from crop production and livestock production indicates that livestock production contributes more to household income growth than crop production, among treatment households.
38. The 2018 impact assessment shows that while there is no significant impact on housing quality index (or housing characteristics), there are significant project impacts on durable assets and livestock ownership (as measured by the tropical livestock unit). The durable asset index for control groups was 0.993 while that for treatment group was 10 per cent higher. The project also calculated a productive asset index, which was 2.53 for control groups while that for treatment groups is 0.16 higher. Both the indexes are significant at 1 per cent.

Food security and agricultural productivity

39. In terms of the impact on household-level dietary diversity, results show that the dietary diversity score⁸ of households in the treatment group is higher than that of the control group by 1.4 per cent (control households recorded a dietary diversity score of 6.47). This is significant at 10 per cent level. This is not a large increase even if it is statistically significant. In the course of CSPE field visits women were found to be undertaking kitchen garden, with many of them found to be using some of the production for consumption. Many of the target groups also elaborated that they sell goats in the lean season to buy food and they were able to smoothen their consumption. The impact survey does not suggest any statistically significant improvement in production of livestock and crops. However, CSPE field visits do suggest improved production of goats and off-season vegetables.

Human and Social Capital and Empowerment

40. HVAP had emphasis on linking the smallholder farmers to the agribusinesses and markets. The programmes did so through conduct of MSPs and bringing together all stakeholders in such platforms. The programme also facilitated signing of formal buy back agreements between agribusinesses and target groups in many cases. This has enabled target groups to get a legal sanction for the duration of their contracts and empowered beneficiaries to get a generally fair price for their produce in most cases. Of course, as noted earlier less than a third of the groups targeted have signed formal contracts with agribusinesses.
41. One of the focuses of HVAP was to ensure that beneficiary households (producer organization members) have improved and sustained access to input and output markets along the value chain throughout the year. Access to markets is measured with frequency of selling products or buying inputs through traders instead of middlemen. The impact assessment results show that households in the project households are 4.7 per cent points more likely to sell their crops to a trader during the wet season and 5.6 per cent points more likely to sell their crops to a trader during the dry season as compared to non-project households. In the course of field visits, it was found that those with formal and informal agreements were

⁸ Count variable calculated from a set of dummy variables whether households members have consumed any of the 16 food groups and reclassified to a dietary diversity score between 0 and 12.

found to be selling to traders and agri-businesses while also opportunistically selling to other parties based on need and price offered.

Institutions and Policies

42. The project has strengthened and revitalised the institutions of producers' organizations/cooperatives. Introduction of regular group meetings for sharing of technical information and agreements with traders and service providers have made these institutions relevant for their members. The number of weak producers' organizations/cooperatives has declined from 87 per cent to 39 per cent according to the PCR. MSPs were institutionalized as a mechanism for facilitating interaction between different stakeholders in a value chain, although its sustainability remains doubtful, as covered under sustainability of benefits section. HVAP also provided inputs to policy dialogue, in the context of the preparation of the ADS and by organizing dialogue fora at the federal level on topics such as multilayer tax in agriculture and forest products and insurance policies for ginger and turmeric.
43. Keeping in line with the analysis above, it can be deduced that household incomes from crops and livestock increased substantially. In addition, there were substantial benefits that flowed from the facilitation of linkages between agribusinesses and smallholders. The project built the capacity of producers' organizations and cooperatives that it worked with. In light of the analysis above, the PCRV concurs with the PCR's assessment and rates rural poverty impact as **satisfactory (5)**.

Sustainability of benefits

44. **Institutional sustainability.** MSPs are an effective tool to establish a dialogue and build confidence between the stakeholders. No mechanism for raising resources was planned for the continuation of the MSPs after the project's phase out, though district chambers of commerce and industries have expressed willingness to carry on with MSPs.
45. On the other hand, the institution that had been engaged by the projects in managing the MSPs, DCCI, does not have enough human and financial resources to continue in this role. The membership to these institutions so far is open to private agribusinesses and traders but not to farmers nor cooperatives. During the CSPE field visits the evaluation team found that it is likely that MSPs were considered as not independent by farmers especially given that price negotiations are held in MSPs and that DCCI is in charge of the preparatory documents for negotiations (costing at farm level, market price at neighbouring districts and on national level, etc.).
46. The project has supported 456 POs/Cooperatives of which 97 per cent are said to be active as of the end of the project. The regular meeting mechanisms are ensuring that these institutions remain active. The grading carried out by the project shows that 61 per cent are performing satisfactorily with the rest remaining weak as of the end of the programme. One of the underlying critical success factors for the sustainability of producer organizations is that most of them also have the members using the groups to undertake savings and credit activities (as a savings and credit group), as observed in the course of the field visits of the CSPE.
47. **Economic and financial sustainability.** As noted under effectiveness, the price that target groups received for produce went up. Thus, there is a possibility that there is an economic incentive to continue project's activities forward. As covered under efficiency, goat and off-season value chains were found to be profitable, with a positive internal rate of return. As covered in the CSPE Nepal report, the agribusinesses are expected to continue their trading/processing activities after project completion. However, beyond commodity specificity, most of the market linkages of the producer organizations were informal in nature with only a third of them having formal contracts. Even within these, as was noted in the 2019 CSPE report and during CSPE field missions, most of the formal contracts were based on

grants given to agri-businesses, the contracts were for 2-3 years, and it was unclear what would happen beyond project closure. According to the project documentation and the CSPE interviews with project staff, there are good expectations about the long-term engagement of agribusinesses. However, the interviews with agribusinesses provided mixed inputs with some non-committal to continued formal engagement with producer groups. The system of fee collection for maintenance of local service providers in the main value chains for inputs and technical advice to producer groups bodes well for the continuation of these services. However, the completion report warns that nearly half of these service providers were still supported by the project during 2017-18, raising concerns on their dependence on project support.

48. **Environmental sustainability.** HVAP supported goat value chain on a large scale. The project supported six fodder nurseries for goat farmers. In addition, it promoted increased stall-fed feeding to facilitate a shift to fully stall-fed system for goat raising as opposed to free range grazing in mountain areas. However, according to the CSPE Nepal report, the data is not clear on the uptake of fodder cultivation, areas grown and on the months during which stall-feeding is practised. The CSPE field missions found that the shift to stall-feeding has been uneven and slow and target groups were still found to be leaving their goats for free grazing. This may lead to overgrazing and is expected to have an adverse impact on the environmental sustainability of fragile hill and mountain ecosystems.
49. In light of the analysis above, sustainability of benefits is rated as **moderately satisfactory (4)**, lower than PMD's rating of satisfactory.

B. Other performance criteria

Innovation

50. MSPs as an innovation was introduced by SNV in HVAP. It was then implemented in another IFAD programme, the Improved Seeds for Farmers Programme. It consists of gathering the stakeholders of a value chain at district level in order to interact, to create business linkage, to set-up the price and to sign buy-back contracts. MSP meetings are held annually and they are organized by the business advisor in the DCCIs. This approach is new to Nepal and the involvement of chambers of commerce is a new approach.
51. The project established a computerized monitoring and evaluation system that collected household data from all the project beneficiaries on a quarterly basis in real time basis. The system was populated with data from farmers' diary for each member of the PO/Cooperative to record investments in value chain activities and income and expenditure from cultivation. To that extent, the project followed an integrated approach to monitoring and evaluation, which was new to the value chain projects in Karnali. This initiative required the platform to source largely reliable data related to the project on a periodic basis.
52. In light of the analysis above, innovation is rated as **satisfactory (5)**, the same as PCR.

Scaling up

53. As per the May 2018 supervision report, "value chain development strategies have been included as one of the four flagship programmes in the Government of Nepal ADS, and HVAP is being used as the core foundation for the next generation of Government of Nepal/IFAD inclusive market development projects in Nepal in support of the ADS". This is an example of policy level scaling up. In addition, there is a much bigger follow on project viz. ASDP based on the approaches adopted by HVAP. As compared to HVAP, ASDP has a much higher IFAD financing (US\$40 million compared to US\$15.2 million in HVAP) and government co-financing (US\$11.5 million compared to US\$1.7 million HVAP). Swiss Agency for Development Cooperation also co-financed the programme to provide technical assistance. In addition, ASDP is implemented over a wider programme area, in all

ten districts of Karnali province. This is not an example of scaling up if one follows the definition provided by IFAD but an example of wider replication of approaches. Similarly, Improved Seeds for Farmers Programme and Samriddhi Rural Enterprises and Remittances Programme, are also replicating the approaches of HVAP. They are especially looking at the model of value chain linkages and MSPs for replication.

54. In light of the analysis above scaling up is rated as **satisfactory (5)**, the same as PCR.

Gender equality and women's empowerment

55. Rural Nepal is characterized by high rates of emigration of able-bodied men. Thus, many households are headed by women. The project has exceeded its targeted outreach to women (64 per cent vs. 60 per cent target). They hold 47 per cent of the total key leadership positions in the producers' organizations. Participation of women, in non-technical trainings (social mobilization, group dynamics, etc.) is 68 per cent, whereas in technical trainings (goat rearing, planting practices) the participation is 65 per cent. To ensure that women are able to better utilize business opportunities provided by HVAP, interventions business literacy classes were provided to 8,617 people of whom 98 per cent were women. In spite of these, the impact survey does not find statistically significant impacts of the programme on the decision making ability of women (measured in terms of their decision making in economic activities such as crop sales, crop cultivation, livestock rearing and livestock sales).
56. In HVAP, some women have been found to be adopting vegetable cultivation and moving away from traditional crop plantation that fetches low income and is more time consuming. In addition, goat rearing was found to be a preferred economic activity among women due to the relatively less drudgery it entailed as compared to agriculture related labour. Young goats can be raised, particularly with improved breeds, in six months. According to project staff interviews, nearly all goat value chain participants were women (their exact numbers unavailable). Women have also taken up several value chain enterprises, seed production and irrigated agriculture. Women were also found to be using the producer groups for other collective activities such as savings and credit through savings and credit groups with HVAP encouraging the women to save their earnings in these groups. The CSPE found the activities of HVAP to be suited to women's needs.
57. In light of the analysis above gender equality and women's empowerment is rated **satisfactory (5)**, the same as the PCR.

Environment and natural resources management

58. HVAP has general features contributing positively to the environment and natural resource management which are: (i) use of terraced land for cultivation and non-use of new land for cultivation thereby minimising soil loss and erosion; (ii) conveyance of irrigation water using pipes, and adoption of drip systems enhancing water use efficiency and irrigation intensity and also construction and use of water storage ponds for additional life-saving irrigation; (iii) use of organic manure thus avoiding chemical fertilisers and use inter-cropping for enhanced production; and (iv) roof-water harvesting for meeting the domestic water demands.
59. However, the focus of HVAP on goats and the expanding herd size can potentially be detrimental to the already fragile mountainous and hilly landscapes. HVAP trained beneficiaries in cut and carry method (stall-feeding). However, the transition to such method is said to be slow and during field visits in the context of the country strategy and programme evaluation in Nepal it was found that goats were still being left for free-grazing. As covered under sustainability, this has the potential to contribute to the existing problem of overgrazing in the hill slopes.

60. In light of the analysis above the performance on environment and natural resource management is rated as **moderately satisfactory (4)**, the same as the PCR.

Adaptation to climate change

61. Timur crop promoted by the project is a hardy tree with deep roots and does not require much water or nutrients. It can be planted in the forest and harvested once it matures, without much attention. For this reason, it is seen as a climate resilient crop. This is particularly important given that it is predicted that large parts of Nepal will face increased intensity and shorter duration of rainfall and extended dry season. In addition, goat value chain is one of the biggest value chains within the seven value chains targeted. The improved and indigenous goat breeds being promoted are relatively resilient to different climate conditions, if the right kind of practices are followed. They also provide a diversification of income sources. However, these are one off interventions. Beyond these, as the MTR states, "*HVAP is relatively neutral from a climate and environment perspective. Some activities are likely to improve farmers' resilience to changing conditions.*" However, as the impact survey makes it clear, HVAP focuses mainly on strengthening the capacity of POs to access markets and value chains and does not involve activities that would directly contribute to resilience building capacity of the beneficiaries.
62. In light of the analysis above the performance on adaptation to climate change is rated as **moderately satisfactory (4)**, the same as the PCR.

C. Overall project achievement

63. Overall, the project has been successful in improving smallholders' access to markets. It helped smallholders in getting higher prices for their produce, though not always through formal contract modalities with agribusinesses. The uptake and success in value chains varies by product with off-season vegetables and goats making up most of the outreach number as noted under effectiveness. The project worked in a practical manner around the prevailing informality in the markets and has promoted approaches that are simple to adapt to such realities in the value chain. The approach of HVAP has been recognized and its approaches are being replicated in other projects, including a bigger follow on project called ASDP. In light of the above overall achievement is rated as **satisfactory (5)**, the same as the PCR.

D. Performance of partners

64. **IFAD.** IFAD facilitated the partnership between SNV and the Government of Nepal. This was important since SNV was said to be a crucial part of the success of HVAP through provision of continuous technical assistance. IFAD supervision reports were also found to be of good quality and appeared to provide clear recommendations at the end of missions. In addition, IFAD allowed for flexibility in change of project design to address the observed, emerging constraints such as lack of local capacity in social mobilization etc. In addition, IFAD has been found to be proactive in replicating the lessons into the new follow on project, and seamlessly so, by designing ASDP to start before the closure of HVAP. This has ensured some continuity of project structures from the previous project.
65. In light of the analysis above IFAD's performance is rated as **satisfactory (5)**, the same as the PCR.
66. **Government.** This project was implemented directly by a project management unit established in Surkhet to implement this project. The Ministry of Agriculture retained the overall coordination role by establishing a programme steering committee with the Secretary, Ministry of Agriculture as the chairperson. Adequate funds were released on time for project implementation. The Government of Nepal also provided required staff for project implementation with fixed tenures with the same project director for the entire duration of the programme. HVAP was also

designated as a flagship project by the government, in the area of value chains, thus giving it visibility at the policy level. In addition, the model of value chain development of HVAP was found to have been replicated in other projects in Nepal such as Samriddhi and in Improved Seeds for Farmers Programme, which was facilitated by the government and IFAD together.

67. In light of the analysis above government's performance is rated as **satisfactory (5)**, the same as the PCR.

IV. Assessment of PCR quality

Scope

68. The PCR covers both the core criteria and other performance criteria in detail. In addition, the annexes of the PCR contain the relevant information including financial models for individual value chains, environmental assessment. The scope of the PCR is rated as **satisfactory (5)**.

Quality

69. The PCR is found to be thorough especially in terms of reporting of output data. However, there is not much data at the outcome and impact level, which is available in the impact survey conducted by the Research and Impact Assessment division. Most of the ratings and statements seem to be backed by evidence, qualitative and quantitative. In light of the above, the quality of the PCR is rated **moderately satisfactory (4)**.

Lessons

70. The lessons elaborated in the PCR are found to be largely in line with the broader narrative of the PCR. The lessons are taken out of some of the important successes (such as criticality of market first approach and technical support of SNV) and shortcomings (such as lack of interest of agribusinesses to collaborate and sign formal contracts with producer organizations). In addition, these lessons are objectively elaborated with solutions discussed (where required) and can thus be directly fed into the next project of similar nature. The lessons learnt section is rated as **satisfactory (5)**.

Candour

71. The PCR is quite forthcoming in its narrative. It details on the shortcomings and successes alike. Where applicable it also looks at the factors which explain the positive or negative performance. In light of the narrative here and the low rating disconnect between IOE and PMD rating the candour of the PCR is rated as **satisfactory (5)**.

V. Lessons learned

72. Based on the PCR's desk review and some inputs from the CSPE field visits the PCR has come up with two important lessons that can be drawn from HVAP's experience.
73. Value chain projects have to work around the informality in markets when dealing with poorer sections of the population. This informality implies that sometimes IFAD projects have to adopt informal approaches to link smallholder to markets and into local and regional value chains. This pragmatism is seen in HVAP where only a third of the producer organizations were linked through formal contracts with agribusinesses while the rest were linked informally, especially in the off-season vegetable and goat value chains.
74. In contexts where agricultural value chains, as a concept, are new it is important to have sound and ongoing technical assistance to ensure steady implementation of the project. In HVAP, this was achieved through partnership with SNV which provided support in carrying out diagnostic analysis and implementation support.

Definition and rating of the evaluation criteria used by IOE

Criteria	Definition *	Mandatory	To be rated
Rural poverty impact	Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions.	X	Yes
	<i>Four impact domains</i>		
	<ul style="list-style-type: none"> Household income and net assets: Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value. The analysis must include an assessment of trends in equality over time. 		No
	<ul style="list-style-type: none"> Human and social capital and empowerment: Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grass-roots organizations and institutions, the poor's individual and collective capacity, and in particular, the extent to which specific groups such as youth are included or excluded from the development process. 		No
	<ul style="list-style-type: none"> Food security and agricultural productivity: Changes in food security relate to availability, stability, affordability and access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields; nutrition relates to the nutritional value of food and child malnutrition. 		No
	<ul style="list-style-type: none"> Institutions and policies: The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor. 		No
Project performance	Project performance is an average of the ratings for relevance, effectiveness, efficiency and sustainability of benefits.	X	Yes
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design and coherence in achieving its objectives. An assessment should also be made of whether objectives and design address inequality, for example, by assessing the relevance of targeting strategies adopted.	X	Yes
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	X	Yes
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.	X	Yes
Sustainability of benefits	The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.	X	Yes
Other performance criteria			
Gender equality and women's empowerment	The extent to which IFAD interventions have contributed to better gender equality and women's empowerment, for example, in terms of women's access to and ownership of assets, resources and services; participation in decision making; work load balance and impact on women's incomes, nutrition and livelihoods.	X	Yes
Innovation	The extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction.	X	Yes
Scaling up	The extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and others agencies.	X	Yes
Environment and natural resources management	The extent to which IFAD development interventions contribute to resilient livelihoods and ecosystems. The focus is on the use and management of the natural environment, including natural resources defined as raw materials used for socio-economic and cultural purposes, and ecosystems and biodiversity - with the goods and services they provide.	X	Yes
Adaptation to climate change	The contribution of the project to reducing the negative impacts of climate change through dedicated adaptation or risk reduction measures.	X	Yes

<i>Criteria</i>	<i>Definition</i> *	<i>Mandatory</i>	<i>To be rated</i>
Overall project achievement	This provides an overarching assessment of the intervention, drawing upon the analysis and ratings for rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation, scaling up, as well as environment and natural resources management, and adaptation to climate change.	X	Yes
Performance of partners			
• IFAD	This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. The performance of each partner will be assessed on an individual basis with a view to the partner's expected role and responsibility in the project life cycle.	X	Yes
• Government		X	Yes

* These definitions build on the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) Glossary of Key Terms in Evaluation and Results-Based Management; the Methodological Framework for Project Evaluation agreed with the Evaluation Committee in September 2003; the first edition of the Evaluation Manual discussed with the Evaluation Committee in December 2008; and further discussions with the Evaluation Committee in November 2010 on IOE's evaluation criteria and key questions.

Rating comparison^a

<i>Criteria</i>	<i>Programme Management Department (PMD) rating</i>	<i>IOE Project Completion Report Validation (PCRVR) rating</i>	<i>Net rating disconnect (PCRVR-PMD)</i>
Rural poverty impact	5	5	0
Project performance			
Relevance	5	5	0
Effectiveness	5	5	0
Efficiency	5	4	-1
Sustainability of benefits	5	4	-1
Project performance^b	5	4.5	-0.5
Other performance criteria			
Gender equality and women's empowerment	5	5	0
Innovation	5	5	0
Scaling up	5	5	0
Environment and natural resources management	4	4	0
Adaptation to climate change	4	4	0
Overall project achievement^c	5	5	0

Performance of partners^d			
IFAD	5	5	0
Government	5	5	0
Average net disconnect			-0.17

^a Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

^b Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.

^c This is not an average of ratings of individual evaluation criteria but an overarching assessment of the project, drawing upon the rating for relevance, effectiveness, efficiency, sustainability of benefits, rural poverty impact, gender, innovation, scaling up, environment and natural resources management, and adaptation to climate change.

^d The rating for partners' performance is not a component of the overall project achievement rating.

Ratings of the project completion report quality

	<i>PMD rating</i>	<i>IOE PCRVR rating</i>	<i>Net disconnect</i>
Candour		5	
Lessons		5	
Quality (methods, data, participatory process)		4	
Scope		5	
Overall rating of the project completion report		5	

Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

Abbreviation and acronyms

ADS	Agriculture Development Strategy
AEC	Agriculture Enterprise Center
ASDP	Agricultural Sector Development Programme
COSOP	Country strategic opportunities programme
CSPE	Country Strategy and Programme Evaluation
DCCIs	District Chambers of Commerce and Industry
HVAP	High Value Agriculture Project in Hill and Mountain Areas
IFAD	International Fund for Agricultural Development
IOE	Independent Office of Evaluation
MoAC	Ministry of Agriculture and Cooperatives
MSP	Multi-Stakeholder Platform
NTFP	Non-Timber Forest Produce
OSV	Off-season vegetables
PCR	Project Completion Report
PCRv	Project Completion Report Validation
PMD	Programme Management Department of IFAD
PMU	Project management unit
PO	Producer Organization
SDF	Sector Development Fund
SNV	The Netherlands Development Organization

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