

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

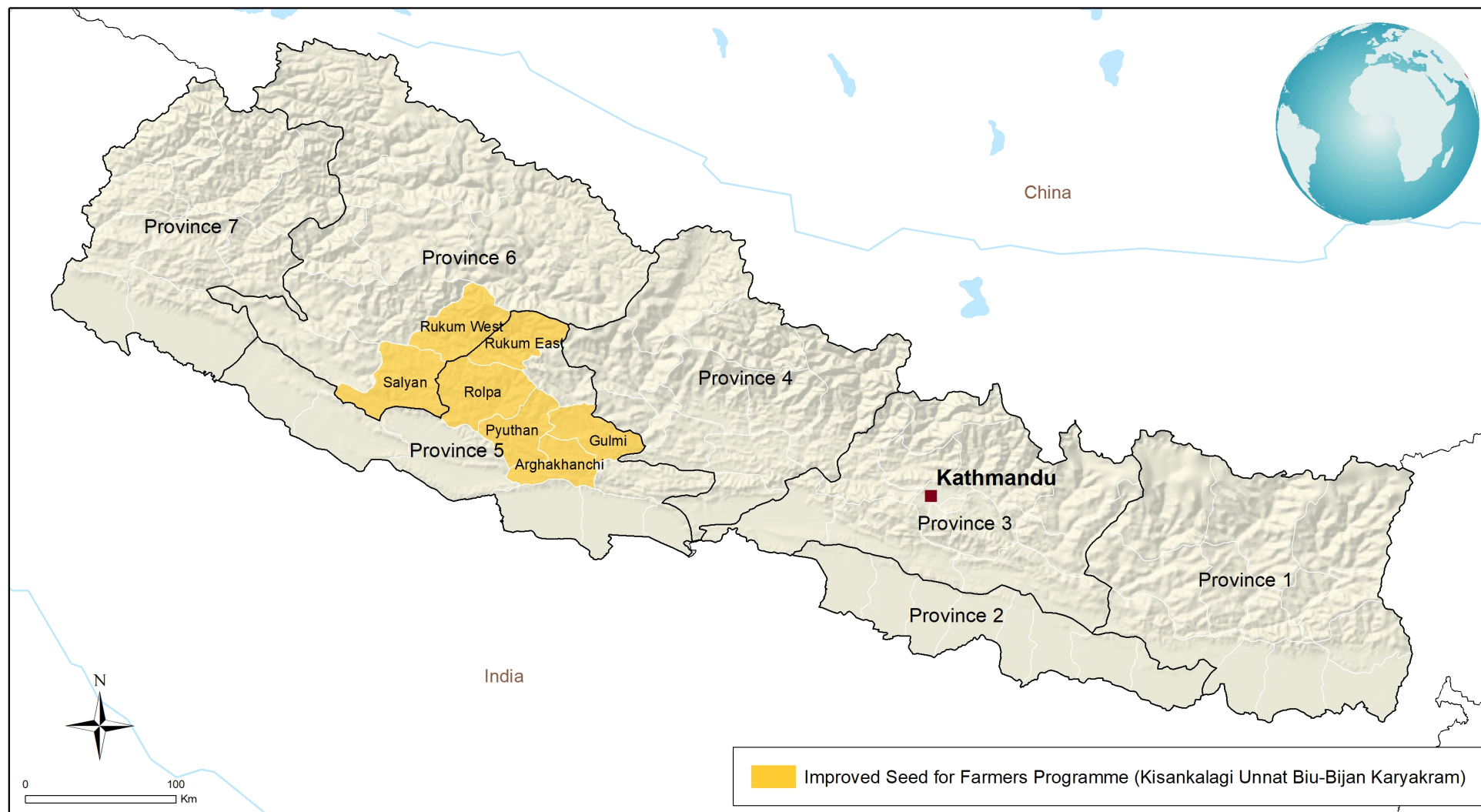
Main report and appendices

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Asia and the Pacific Division
Programme Management Department

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Map of the Project Area



IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 06-05-2020

Currency Equivalents

Currency Unit =

US\$1.0 =

Weights and measures

1 Kilogram	=	1000 g
1 000 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

Abbreviations and Acronyms

AEC	Agro Enterprise Centre
AI	Artificial Insemination
APR	Asia and the Pacific Region
ASC	Agriculture Service Centre
AWPB	Annual Work Plan and Budget
BBA	Buy Back Agreement
BCA	Benefit Cost Analysis
BCR	Benefit Cost Ratio
BH	Breeder Herd (goats)
CAVE	Community Agro-vet Entrepreneur
CGS	Competitive Grant Scheme
CO	Country Office
CPA	Comprehensive Peace Accord
CPO	Country Programme Officer
DADC	District Agriculture Development Committee
DADO	District Agricultural Development Office
DCC	District Coordination Committee
DCCI	District Chamber of Commerce and Industry
DDC	District Development Committee
DLSO	District Livestock Services Office
DoA	Department of Agriculture
DoLS	Department of Livestock Services
DTCO	District Treasury and Controller Office
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
FA	Financial Agreement
FFS	Farmer Field School
FIRR	Financial Internal Rate of Return
FNPV	Financial Net Present Value
FMIS	Financial Management Information System
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
FY	Financial Year
GC	General Conditions
GESI	Gender, Equality (Equity) and Social Inclusion
GoN	Government of Nepal
GOVT	Government
HH	Household
HIN	Heifer International Nepal
ICT	Information Communication Technology
IFAD	International Fund for Agricultural Development

ISFP	Improved Seeds for Farmers' Programme
IW	Investment Window
KM	Knowledge Management
KUBK	Kisankalagi Unnat Biu-Bijan Karyakram (Improved Seed for Farmers Programme)
LEID	Local Entrepreneurship and Institutional Development
LPA	Lead Programme Agency
LSC	Livestock Service Centre
LTB	Letter to the Borrower
masl	Metres above sea level
M&E	Monitoring and Evaluation
MH	Multiplier Herd
MIS	Management Information System
MOALD	Ministry of Agriculture and Livestock Development
MoF	Ministry of Finance
MoLMAC	Ministry of Land Management and Cooperatives
MoU	Memorandum of Understanding
MT	Metric Ton
MTR	Mid Term Review
NACCFL	Nepal Agriculture Cooperative Central Federation Limited
NARC	Nepal Agricultural Research Council
NLBO	National Livestock Breeding Office
NPR	Nepal Rupees
ORMS	Operation and Results Management System
PCM	Programme Coordination and Management
PCR	Project Completion Report
PIM	Programme Implementation Manual
PMD	Programme Management Department
PMO	Programme Management Office
POG	Passing on the Gift (Heifer)
PSC	Programme Steering Committee
PVS	Participatory Varietal Selection
RIMS	Results and Impact Management System
RMIC	Rural Infrastructure Management Consultant Pvt Ltd
RSTL	Regional Seed Testing Laboratory
SEAN	Seed Entrepreneurs' Association of Nepal
SFACL	Small Farmer Agriculture Cooperatives Limited
SFDB	Small Farmer Development Bank
SHG	Self Help Group
SPG	Seed Producer Group
SKBBL	Sana Kisan Bikas Laghubitta Bittya Sanstha Limited ~ (Small Farmer Development Bank)
SQCC	Seed Quality Control Centre

SVA	Switching Value Analysis
TL	Truthfully Labelled (Seed)
USD	United States Dollar
VAHW	Village Animal Health Worker
VDC	Village Development Committee
VC	Value Chain

Project at a glance

Region Asia and the Pacific Division	Project at Risk Status Not at risk
Country Nepal	Environmental and Social Category B
Project Name Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram)	Climate Risk Classification not available yet
Project ID 1100001602	
Project Sector Agricultural Development	
CPM Tarek Kotb	
Project Area Rukum, Rolpa, Salyan, Pyuthan, Arghakhanchi and Gulmi Districts	

Key Dates

IFAD Approval	Signing	Entry into Force	Mid-Term Review	Original Completion	Actual Completion
21/09/2012	02/12/2012	02/12/2012	29/02/2016	31/12/2019	31/12/2019
		Original Financial Closure	Actual Financial Closure		
		not available yet	not available yet		
Date of Last SIS Mission	Number of SIS Missions	Number of extensions	Effectiveness lag		
03/06/2019	14	0	3 months		

IFAD Financing as at the time of PCR submission

Additional Financing Loan	XDR Million	3.27 Million	% disbursed	100.0
Loan	XDR Million	9.29 Million	% disbursed	100.0
Grant	XDR Million	9.33 Million	% disbursed	85.7

Actual Costs and Financing (USD '000) as at the time of PCR submission

Component	IFAD	Cofinancing	Beneficiaries	GOVT	Total
	Actual	Actual	Actual	Actual	Actual
Local Entrepreneurship & Institutional Dev.	12 395	0	1 091	628	14 114
Programme Coordination and management	5 530	0	0	1 407	6 937
Smallholder Livestock Commercialization	5 918	0	2 530	760	11 724
Support to Extension of Formal Seed Sect	6 913	0	4 337	1 078	12 328
Total	30 758	0	7 958	3 873	45 105

Remarks

The expenditures incurred from the source of the Government, Heifer International and beneficiary have been calculated in USD using average exchange rates of the monthly exchange rates of concerned fiscal year.

Outreach

Direct Beneficiaries	
Number of HH members	Number of persons receiving services
Estimated total: 1 013 805	Total: 1 013 805
	Males: 496 764
	Females: 517 041

Project Objectives

Acc to agr/techno & prod servc

The programme's goal is to promote competitive, sustainable and inclusive agricultural growth in the target area in order to contribute to overall economic growth. Its development objective is to create sustainable productivity improvements through market-led demand for improved seeds and livestock with an aim to testing and scaling up an agriculture-led growth model.

Country Partners

Executing Institution	not available yet
Implementing Institutions	not available yet

Project Completion Ratings Matrix

COUNTRY: Nepal	
PROJECT NAME: Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram)	
PROJECT ID: 1100001602	
BOARD APPROVAL DATE: 21/09/2012	
ENTRY INTO FORCE: 02/12/2012	
PROJECT COMPLETION DATE: 31/12/2019	
LOAN CLOSING DATE: 30/06/2020	
IFAD LOAN AND GRANT (USD MILLION): \$44,020,639	
TOTAL PROJECT FINANCING: \$55,402,190	
IMPLEMENTING AGENCY: not available yet	
Criterion	PCR Rating
Project performance	
- Relevance	5
- Effectiveness	4
- Efficiency	4
- Sustainability	4
Rural poverty impact	4
- Households' incomes and assets	5
- Human and social capital	4
- Food security	4
- Agricultural productivity	4
- Institutions and policies	5
Additional evaluation criteria	
- Gender equality and women's empowerment	5
- Innovation	5
- Scaling up	4
- Environment and natural resource management	4
- Adaptation to climate change	4
- Targeting and outreach	4
- Access to markets	4
Partners performance	
- IFAD's performance	4
- Government performance	3
Overall project achievement	4

Executive Summary

Kisankalagi Unnat Biubijan Karyakram/Improved Seeds for Farmers Programme (KUBK-ISFP) is a complex agriculture commercialization programme, implemented from 2012 to 2019 in seven districts^[1] in State 5 and Karnali Province in Mid-West Hills, with a design budget of USD 59.7 million in total which became effective on 02 December 2012 and was completed on 31 December 2019 with loan closing on 30 June 2020. The Mid term review (MTR) of this programme was carried out from 29 February to 22 March 2016.

The MTR highlighted slow disbursement rate as an issue, citing late start of the Programme, over-estimation of unit costs at design, exchange rate gains, inability to spend capacity building funds due to the Government of Nepal's restriction on the use of loan funds for this purpose, inability to recruit FAO and Heifer International due to Government of Nepal (GON) procurement rules and suspension of the livestock component at the outset of the programme as major contributory factors. Limited staff capacity, mobility and low level of operational support were also noted as contributory factors. This led to a partial cancellation of USD 10 million by amendment to the Financing Agreement on 21 November 2017.

As of May 2020, final programme disbursements amounted to USD 45.59 million made up of USD 3.87 from GoN; USD 14.36 million from IFAD Loan; USD 12.36 million from IFAD Grant; USD 4.53 from IFAD Supplementary loan; USD 2.52 million from Heifer and USD 7.96 million from Beneficiaries (including the balance of USD 0.482 million under designated account). This was achieved through a combination of increased programme delivery post-MTR and a reduction in the funding available following the MTR recommendations.

During the course of programme implementation, significant changes in the political system of Nepal were implemented. A new constitution was adopted in 2015 which changed the governance of the nation to a federal system from a unitary system.

Target Population. The target area of the KUBK-ISFP in the mid-hill region of Nepal^[2] exhibits high levels of rural poverty. This is compounded by substantial presence of disadvantage casts in the population and an increased feminisation of agriculture due to outmigration of men seeking employment overseas or elsewhere in Nepal.

The goal of the Programme is to promote inclusive, competitive and sustainable agricultural growth within the target area so as to contribute to overall economic growth.

The objective of the Programme to improve household incomes through sustainable, market-driven productivity improvements, had four components: 1: Support to the Extension of the Formal Seed Sector; 2: Smallholder Livestock Development; 3: Local Entrepreneurship and Institutional Development and 4: Programme Management Office.

The implementing agency of the KUBK-ISFP is the Government of Nepal, Ministry of Agriculture and Livestock Development (MoALD). The other implementing partners were Heifer International, Agro Enterprise Centre (AEC), Sana Kisan Bikash Laghubitta Bittiya Sanstha Limited (SKBBL)^[3] and Nepal Agricultural Cooperatives Central Federation Limited (NACCFL). KUBK-ISFP also collaborated with related public institutions such as Nepal Agricultural Research Council (NARC) etc. The partnership with Heifer International supported the implementation of the **"goat productivity improvement sub-component"** under livestock component in the Arghakhachi and Gulmi districts.

The programme made notable progress despite several delays and weaknesses in the initial years of its implementation. It achieved over 100 % outreach targets, 92% physical targets and 91% financial targets. IFAD fund disbursement exceeded 90% excluding initial advances. Heifer International disbursed 100% of its financial contribution. Beneficiary contribution was over 100% while government contribution was slightly more than 72%. Of the total beneficiaries, 81% were women, 16% Dalits and 24% Janjatis. The programme contributed substantially to the Goal of "Promoting inclusive, competitive and sustainable agricultural growth within the target area". As borne out by the economic cost benefit analysis – IRR of 20.4% of the programme with an NPV at a 10% discount rate of USD 17.74 million and a BCR of 1.68. This was made up from significant achievements in crop and livestock productivity. Crops' productivity increased by 17.3% against a target of 15%, likewise for Livestock productivity increased by 47.7% against a target of 10%. The number of direct beneficiary households also exceeded target by nearly 2%. However it has to be noted that this highlighted not only the improved performance of the project team post MTR (against a reduced funding allocation), but deficiencies in the design, with significant over estimation of costs, compounded by Government procurement restrictions delaying or preventing engagement with important partners and poor initial project implementation.

Program relevance is rated as satisfactory (5). The Programme goal and objectives at design were relevant to the participating households and in full agreement with the development goals, national sector programmes and development policies and strategies of GoN. In tackling the areas of improved seed production, increased milk production and increased goat meat production the programme correctly targeted agricultural activities that were relevant to the prevailing production systems in the programme area, offered opportunities to increase returns to farmers through increasing sales, in terms of both volume and value, and facilitated farmer access to sources of investment to allow them successfully engage with identified market opportunities. These priorities remained valid through the life of the programme.

The programme effectiveness is rated as moderately satisfactory (4) achieving over 100 % outreach targets despite reduced financing of USD 10.0 million with increased outreach from 75 000 to 90 000 households directly benefiting from project interventions. Overall, it achieved 92% physical targets and 96.39% financial targets. The need however to reduce financing highlighted by the MTR, raises questions on program design and initial programme management.

Truthfully labelled seed production increased to 7 942 mt of against the target of 3 750 mt, this TL seed is estimated to be sufficient to sow some 237 949 ha. of food crops against the target of 100 000 ha of land. Four private seed companies were supported through competitive grants to enhance their capacity and 3 additional companies entered the area on demonstration of the benefits of seed processing as a business. This crowding in investment is evidence of both the commercial opportunities identified and the likelihood to further support and sustain the programme achievements. Important policy changes were facilitated by the project in licencing private companies undertake foundation seed production and in training and licensing private seed inspectors. This removes bottlenecks to the supply chain of certified and TL seed.

The value of milk product increased by 47.7% against the target of 10%, producing 27 963 ltrs/day; capacity of the farmers and dairy entrepreneurs was enhanced through 78 matching grant subprojects both for production and dairy processing; training on animal husbandry and feeding strategies; access to improved breeds; and through buyback agreements between milk producers' and local dairy entrepreneurs managing milk collection centers and processing plant for 4 812 litres milk per day.

Goat production was enhanced through introduction of Boer Goat genetics and development of innovative district level breeder herds that delivered more than 2 504 kids with 50% Boer genetics. These were further increased through multiplier herds resulting in progeny of 25% Boer genetics. NARC conducted a survey of the productivity of the various Boer blood lines which confirmed their significant increase in productivity over local breeds. Farmers were trained in improved animal husbandry and feeding strategies and linked to market via buyback agreement

between goat producers' and meat processors for 8 465 goats (162.9 MT of meat) per year.

Access to financial services considerably improved through the network of 75 SFACLs. These institutions have organized 40 347 households (90% of target) and offering saving and credit services mobilizing NRs.1 760.2 million of resources. SKBBL has received subsidized loan of USD 8 million from KUBK-ISFP for wholesale lending to SFACLs affiliated with SKBBL. The credit supplied by these cooperatives was instrumental in supporting productive investments and in allowing small farmers engage with market opportunities.

Household annual income increase for seed growing households rice, wheat, maize; and vegetable amounted to NPR. 27 333, NPR. 12 103, NPR.17 476, NPR. 35 000 respectively; for dairy and goat farmers it amounted to NPR. 144 000 and NPR 277 000.

The programme efficiency is rated as moderately satisfactory (4).Delays at start up impinged on early delivery, but actions taken post MTR supported higher levels of attainment in the final years. Cost-benefit analysis yielded an overall IRR of 20.4% of the programme with an NPV at a 10% discount rate of USD 17.74 million and a BCR of 1.68. A positive NPV under the current Opportunity Cost of Capital of 10%^[4] indicated that the programme investments have been robust and sound. The switching value analysis indicated that the programme investments are worthy of sustaining a 41% decline in overall benefits or 69% increases in costs but are highly sensitive to simultaneous increases in costs and decline in benefits. If benefits delayed by two years (in effect, if the programme's future production activities take longer to become fully developed or established in particular the interventions started in preceding three years) then the IRR declines to 12% with a NPV of USD 4.34 million.

Post Programme sustainability is rated as **moderately satisfactory (4)** based on the likelihood that benefits generated by the Programme will continue after KUBK-ISFP completion based on the strong results, financial and economic incentives created, the high level of beneficiary ownership and their engagement with the private sector combined with the ongoing commitment of the government.

KUBK-ISFP capacitated 360 seed producers' groups, 92 Dairy producer groups and 512 self help groups, 75 SFACLs and 16 other cooperatives for their governance and social cohesion. Social sustainability of these is likely as the groups and cooperatives deliver tangible benefits to the members from the grant projects, and also in collecting savings, accessing loans and increasing negotiation positions with buyers through the MSPs and Investment Windows. The agrovets / paravets and butcheries, private seed companies, agribusinesses linked to dairy and goat producers, as private sector entities motivated by profit, are likely to sustain after the closure of the programme.

The production technologies promoted through the KUBK-ISFP were not highly intensive nor dependent on high levels of external inputs, e.g. the livestock production systems linked to local fodder and forage production, use of small scale irrigation infrastructure, use of good agricultural practices for seed production all minimise any negative effects on the local environment.

Recommendations

Seed sub-sector

- Municipal and State Level government should be mobilized to maintain broker linkages that address the maturity level amongst the production groups and the private seed companies which needs continued support at least for 2-3 additional cropping season.
- The Programme was instrumental in enhancing the capacity of the private seed companies by supporting investment in physical infrastructures, this enhanced capacity should be fully utilized in future for seed sector development through an agreed plan with the seed companies.
- Vegetables and maize seeds are performing well in the hills, however there is need to devise a different extension mechanism for paddy and wheat seed. Government should look into the factors affecting farmers decision making on these issues and revise the approach accordingly
- Additional Private Seed Inspectors should be trained and licensed for quality assurance and linked with the Municipal governments to ensure quality of seeds produced for sale.

The provision of quality TL seed is a foundation stone for food security, directly addressing the pillar of staple crop availability. The Government is advised to give some considerable thought to further engaging in developing this important sector taking on board the positive examples and lessons learned from the KUBK-ISFP programme.

Livestock sub-sector

- NARC should continue research on the appropriate blood level of Boer genetics in a famer managed goat-rearing system
- MOALD should enact a Goat Breeding Policy once NARC provides final recommendation on the blood level of the Boer genetics.
- The Community Goat Breeding Herd approach should be expanded in other parts of the country with adequate technical backstopping for quality assurance from the national research system.
- A cluster approach for dairy development focussing young entrepreneurs to engage into clean agriculture should be implemented.
- As seed production, increased production of meat, milk and milk products is an essential component of food security which combined with the training on utilisation and the role protein adequacy plays in addressing child stunting, it can contribute to improved nutrition for the population. Replication of this programme's successes and lessons learned for other similar areas in the country should be undertaken.

Cooperative development

- There have been significant levels of investment from the Programme promoted SFACLs in agriculture sector. It has also ensured access to financial services to the remote rural areas of Nepal. Continued promotion of this model by expansion to other parts of the country should be considered.
- ISFP-KUBK similar approaches should have a specific extension and behaviour change component included in its methodology rather than relying on introducing farmers to market opportunities which, while necessary, are seldom sufficient in and of themselves to ensure engagement of the most disadvantaged.
- The Government should look to build capacity within State MoLMAC to take up the roles of District Agriculture Development Officers (DADO) and District Livestock Development Officers (DLSO) and provide extension support to the farming community.
- The Government should build capacity within State MoLMAC to continue support to the programme created and supported SFACLs to ensure their continued development, but also to look to expand this model to other suitable communities in the country.
- Where nutrition output targets are included and desired by the development partners, then there should be a dedicated component included in programme implementation to specifically address the nutrition messaging and behaviour change communication.

A. Introduction

1. Kisankalagi Unnat Biu-Bijan Karyakram/Improved Seeds for Farmers Programme/ (KUBK-ISFP) approved by IFAD's Executive Board on 21 September 2012 is a complex rural development programme in Nepal addressing staple cereal and vegetable seed supply; livestock production both meat and milk; rural financial institutions and cooperatives; and contributing to policy changes. The programme commenced 02 December 2012 and reached completion on 31 December 2019 with loan closing on 30 June 2020. The MTR was carried out from 29 February to 22 March 2016. In all, 11 supervision and implementation support missions were carried out with the last mission in May/June 2019.
2. IFAD fielded a PCR mission^[5] for KUBK-ISFP during 12 – 26 January 2020. The main objectives of the mission^[6] were to assess and document overall performance of the Programme following the outline presented in IFAD's Project Completion Review Guidelines (2019), focussing on the adequacy of the data and information for the analysis of four pillars, namely, i) relevance, ii) effectiveness, iii) efficiency and iv) sustainability and validate the Project Completion Report submitted by the MOALD to IFAD.
3. The mission's review exercise was undertaken on the basis of a programme completion report submitted by the Lead Programme Agency (LPA). This PCR mission reviewed the programme documents and conducted extensive consultation with implementing partners, central and district level key stakeholders and beneficiaries. The team visited 12 programme sites across 4 Districts (Argakhachi, Gulmi, Puythan and Rolpa) and undertook detailed discussions with producers, cooperatives, traders, government line agencies, KUBK-ISFP staff, FNCCI and DCCIs. The programme completion report prepared by the LPA was discussed in a well-attended programme meeting on 23rd January 2020 in Butwal where the key findings and conclusions of the mission were presented and discussed for validation prior to presentation to the stakeholders' workshop in Kathmandu on 26th January 2020.
4. KUBK-ISFP aims to develop the formal seed sector as well as improve smallholder livestock through improved partnerships with private sector, development of small farmer associations and cooperatives and engagement with value chain actors in the hills of Nepal. The Programme was designed to be implemented for a period of seven years (2012 – 2019) in seven districts^[7] in State 5 and Karnali State in Mid-West Hills. The completion date for this programme was 31 December 2019, and the loan closing date is 30 June 2020.
5. This complex programme, integrating high value seed production, livestock interventions, market linkage, and farmer collaboration and financing modalities, made several adjustments to the implementation process in response to field realities and the recommendations of the MTR, supervision and implementation support missions. A partial cancellation of IFAD financing USD 10.0 million was effected, through signing of the amendment to the Financing Agreement on 21 November 2017, reducing IFAD financing to Loan funding of SDR 9.29 million and IFAD Grant funding of SDR 9.33 million in addition to the Supplementary Loan of SDR 3.27 million. These, combined with management changes initiated by Government had a positive impact on programme performance in the later stages, particularly with regard to achievement of outreach, physical and financial targets and also on programme outcomes and impacts, but flag issues in the design and early implementation.
6. During the course of programme implementation, significant changes in the political system of Nepal were implemented. A new constitution was adopted in 2015 which changed the governance of the nation to a federal system from a unitary system. Nepal now has seven States, each with its own legislature and Chief Minister, with each State having several local government units comprising rural and urban municipalities resulting from reorganizing the pre-existing districts. Elections were held to all tiers of governance in 2017.
7. These modifications in the political and administrative structure of the country while impacting on the local delivery mechanism with the disbandment of the District Agricultural Development Office (DADO) and District Livestock Services Office (DLSO) who were primarily responsible for the extension activities of the programme, did not create major disruptions to overall KUBK-ISFP implementation as the programme was firmly embedded in the Ministry of Agriculture of the federal government. The loss of DADO and DLSO though has implications for future engagement at the local level and these district institutions will need strengthening to become essential partners if the results of the programme are to sustain into the future.
8. GoN during the course of restructuring has formulated and implemented a 20 -Year Agriculture Development Strategy (ADS) in 2015. This strategy takes into account the objectives of Agriculture Policy 2004, and the learnings of previous 20-years (1996-2015) Agriculture Perspective Plan. The focus remains on commercialisation of agriculture. The KUBK-ISFP has developed useful lessons on promotion of commercialisation in remote areas, linking farmer groups to buyers, developing multi-stakeholder platforms, supporting investment in the seed value chain, promoting district level breeder and multiplier herds and clustering dairy farmers linked with retail outlets in the locality.
9. The PCR mission's observations, assessment and recommendations on the overall performance of KUBK-ISFP were presented at a well-attended workshop held on 26th January 2020 in Kathmandu, chaired by the Secretary (Agriculture), MoALD, attended by senior officials of MoALD, staff of KUBK-ISFP and other IFAD funded projects, and representatives of programme partners and programme beneficiaries (a synopsis of the workshop proceedings is presented in Appendix 9). The recommendations proposed in the report were broadly supported by the GoN. During the final workshop the Secretary, MoALD expressed satisfaction with the implementation of KUBK-ISFP which highlighted appropriate strategies and interventions to assist in commercialisation of smallholder agriculture, and sought support from IFAD for implementing further projects that focus on commercialisation of the sector.

B. Project Description

B.1. Project context

10. At programme design stage, Nepal was classified as a Low-Income Food Deficit country (LIFDC) with agriculture central to the national economy as nearly 80 percent of all households (3.4 million) and two thirds of the national labour force depended principally on the sector for their livelihoods.
11. Nepalese agriculture was and is heavily influenced by altitude, with three major agro-ecological zones recognized, each running East-West across the length of the country: (i) the southern lowland terai, predominantly between 300-800 masl; (ii) the intermediate hills zone, and; (iii) the northern upland mountain zone. Each zone is characterized by a different combination of crop and livestock activities, as well as different levels of population density and availability of infrastructure and services.

12. Crops accounted for around 65 percent of agricultural GDP with more than 75 percent of total cultivated area planted to cereals. Yields of major crops are poor by regional standards, with Nepalese paddy rice yields in 2010 being the lowest recorded in South Asia, while wheat yields were lower than for any other country except Afghanistan. Access to quality seeds by remote farmers was viewed as one of the constraints. In view of the characteristic of small pockets of lands owned by the farmers in the remote and hilly areas, potential of improved productivity relies primarily on access to consistent supply and use of quality inputs, of which seed is the most important.
13. Livestock was and remains important throughout the country, particularly in the mountain zone, with an estimated national population of 8.5 million goats, 4.7 million cattle and 4.7 million buffaloes in 2009. An estimated 65 percent of all agricultural households held both goats and cattle. However as with crops, access to superior genetics and improvements in standards of animal husbandry, offered potential to substantially improve productivity.
14. Although Nepal's poverty level declined from 42 percent in 1995/96 to 25 percent by 2010/11, it remained significantly higher in rural areas. In part, this was attributed to the predominance of smallholders and marginal farms in Nepalese agriculture, with an average holding size of only 0.7 hectares in 2010-11. Nearly a half of all farms had less than 0.5 ha of land, while those with less than 1 ha of land constituted nearly three-fourths of all holdings.
15. Much agricultural production was predominantly of subsistence nature. Some 78 percent of farm holdings reporting production primarily for home consumption, while only 1 percent producing primarily for commercial purpose. For 60 percent of holdings, annual production was not sufficient to feed the household over the year and 20 percent of holdings were deficient in food for more than half of the year.
16. The prolonged absence of male household members migrating for work, led to an increasing "feminization" of agriculture in Nepal, with women increasingly taking responsibility for both household and farm management.
17. The programme area also had and still has substantial populations from the disadvantaged castes and ethnic minorities; improvement in agricultural productivity was seen as an appropriate intervention to address some of their constraints. A programme focus on addressing both women and disadvantaged sectors of society was seen as desirable.
18. The Programme was designed to directly contribute to three of the four Strategic Objectives laid out in the IFAD COSOP (2007-2012), including the development of high value agriculture, improved access to markets and services, and improving the participation of poor women, ethnic groups and dalit members in income generation and local decision making.
19. Opportunities to engage small farmers through production of higher value seed crops linked to private sector market actors, combined with increased organisation of farmers into groups, collectives and cooperatives to increase both their attractiveness for seed companies through their ability to bulk supply, and strengthening their negotiation position, underpinned the programme approach.
20. Given the prevalence of livestock within the target population it provided an obvious area of intervention. Addressing low productivity through an integrated approach to improving market access (for milk and meat) combined with improving productivity through both improved husbandry and access to exotic genetics with higher potential, were logical approaches by the programme as has been borne out by the programme results.
21. The programme area featured prominently in the armed conflict that was finally resolved with the signing of the Comprehensive Peace accord (CPA) in November 2006. In an effort to address the underpinning grievances and causes of this conflict and improve the lives of the people, the GoN realised the need to address economic isolation of hill and mountain areas. As poverty levels in these areas were high, ascribed to poor access to infrastructure and services, isolation from markets exacerbated by the conflict, and economic exclusion linked to gender, ethnicity, and caste, it highlighted the need for stronger connectivity between farmers, input suppliers, traders/agribusinesses and downstream markets.
22. The programme conceptualization was in line with the government's vision of developing new processes for poverty alleviation by ending economic isolation. This was given added impetus to bring about improvements in the lives of the people post signing of the CPA as a tangible confidence building measure in contributing to reconciliation and peace building processes in an effort to heal the divisions arising from the decade long conflict.
23. The design also built on the various studies demonstrating the advantages of adopting a value chain approach and building on the strong producer interest and market demand for improved seeds and livestock products. Concurrently the existence of large numbers of community groups in the programme area was seen as potential vehicles for injection of new concepts, funding and for creating concentrations of supply.
24. GoN in response to this contextual environment requested IFAD for formulation of KUBK-ISFP, covering selection of appropriate pro-poor interventions for improved seed production, development of appropriate value chain linkages, integration of improved livestock production and marketing, combined with group mobilisation to address the particular needs of the programme area, and their development through improved access to research and extension services, financial services, input supplies and market information, as well as through improved infrastructure.

B.2. Project objectives

25. **Target Population.** The Programme was designed to directly benefit about 75 000 (increased to 90,070 by the MTR) households, including those participating in production groups and farming households that adopt improved seed and livestock, in seven districts - Arghakhanchi, Gulmi, Pyuthan, Rolpa, Rukum (East), Rukum (West) and Salyan (the "Programme Area").
26. **The goal** of the Programme is to promote inclusive, competitive and sustainable agricultural growth within the target area so as to contribute to overall economic growth.
27. **The objective** of the Programme is to improve household incomes through sustainable, market-driven productivity improvements, with the aim to scale-up an agriculture-led growth model.
28. These objectives and goal were to be achieved through four programme components.
29. **Component 1: Support to the Extension of the Formal Seed Sector through Ensuring an Effective Enabling Environment** to promote policy and regulation improvements; **Improved Seed Production** to increase output of improved seed; and **Promoting Farmer Demand for Truthfully Labelled (TL) Seed** to promote awareness of improved seeds among disadvantaged groups and people in remote areas.

This was expected to support at least 22 500 (7 200 originally) households, organized around 900 (720 originally) groups / Cooperatives (including farmers field school and participatory varietal selection demonstration groups) and involving up to 5 (13 originally) private seed company operations participating in the production of approximately 760 metric tons (MT) of TL paddy; 830 MT of TL maize; 1 660 MT of TL wheat; and 500 MT of a range of TL vegetable seeds. This was expected to generate overall positive net margins for both the seed groups and the seed companies. TL improved seed production was expected to lead to the increase of its utilisation coverage for the related varieties and be sufficient for the sowing of some 15 200 hectares of paddy; 33 200 hectares of maize; 13 800 hectares of wheat; and 38 400 hectares of vegetables in the agro-ecological hills zone.

30. **Component 2: Smallholder Livestock Development through Improving Dairy Productivity and Improving Goat Productivity** to address breed improvement, nutrition and management, veterinary services development, farmer training, and market linkage development, and **Strengthening of District Livestock Service** to address the mobility and equipment of district offices, including creating an expanded artificial insemination capacity. This was expected to support group/cooperatives/communities to establish at least 60 dairy enterprises in 17 dairy clusters (added during MTR) as well as 5 (reduced from 15 during MTR) large companies as public private partnerships for milk production and marketing. Under the improving Goat Productivity sub-component, the Programme was expected to support the establishment of 2 Breeder Herds, 12 Multiplier Herds and 12 goat collection hubs/livestock markets, which in their turn will stimulate private investment in meat processing and sales. Over the implementation period of the sub-component, it was expected that increase of milk and meat production will yield substantial financial income among the 22 570 (23 100 initially) beneficiaries' households.
31. **Component 3: Local Entrepreneurship and Institutional Development Through Institutional Strengthening** to include both local bodies and producer groups and cooperatives, **Access to Non-financial Services** to promote the Programme-supported value chains by creating an Investment Window at the District Chambers of Commerce and Industry, and **Increasing Outreach of Microfinance Institutions** implemented by Small Farmers Development Bank (SFDB) to make available a credit line comprising of SDR 5.44 million equivalent for on-lending only to cooperatives within the Programme area (a restated Financing Agreement (FA) was signed by the government on 12 May 2014 which topped up SDR 3.27 (approx. USD 5.00) million to the initial IFAD financing, increasing financing available for support to SFACs to a total of USD 8million). This was expected to provide a conducive environment for activities undertaken under components 1 and 2: through strengthening 156 Village Development Committees (VDCs), providing technical and management training to 24 810 households, ensuring access for 45 000 (increased from 30 000 during MTR) households to finance and financial services through the creation of at least 75 (increased from 30 during MTR) Small Farmer Agriculture Cooperatives.
32. **Component 4: Programme Management Office.** This Component aimed to ensure effective and efficient management of the Programme through planning, training, monitoring and evaluation, knowledge management and governance.

B.3. Implementation modalities

33. The implementing agency of the KUBK-ISFP is the Government of Nepal, Ministry of Agriculture and Livestock Development (MoALD). The other implementing partners were Heifer International, Agro Enterprise Centre (AEC), Sana Kisan Bikash Laghubitta Bittiya Sanstha Limited (SKBBL) and Nepal Agricultural Cooperatives Central Federation Limited (NACCFL).
34. The Programme was directed by the Programme Steering Committee (PSC), chaired by MoALD, with the participation of other participating public and private sector agencies, including the Ministry of Finance. The PSC was supported at national level by an advisory group (partner forum) in the framework of the ADS encompassing key seed sub-sector representatives from the public, private and cooperative sectors as well as civil society organizations and donor representation
35. Field level implementation and day to day management of programme activities was delivered through the field based Programme Management Office (PMO) and district level Programme Implementation Unit (PIU) that housed Technical Assistance Team located in Butwal.
36. The success of the Programme relied on the participation of the private sector in promoting and expanding the formal seed, milk and live goat trade, and the ability to collaborate effectively with other relevant rural development initiatives underway in Nepal.
37. KUBK-ISFP collaborated with related public institutions such as Nepal Agricultural Research Council (NARC) and its outreach stations, Government Resource Farms, Seed Quality Control Centre (SQCC) and Regional Seed Testing Laboratories (RSTLs) for the management of the source seed and genetic materials and seed quality control. Primarily, NARC supported the production of the breeder seed and a part of foundation seed to maintain the seed cycle to ensure consistent quality. The national research system also strongly supported the programme through maintenance of the Boer Nucleus Herd at Goat Research Centre, Bandipur. Coordination with National Livestock Breeding Centre (NLBO) Pokhara made for management of the cattle and Boer goat genetic materials and supply of the liquid nitrogen for AI services.
38. Collaboration with District Agriculture Development Office (DADO) and District Livestock Services Office (DLSO) was an essential linkage in the early part of the programme up until the restructuring of these entities with the adoption of the new constitution which resulted in their demobilisation. Until that time they effectively implemented FFS training and delivered other extension and support services. These institutions also played a key role in monitoring field level activities.
39. The partnership with Heifer International supported the implementation of the **"goat productivity improvement sub-component"** under livestock component in the Arghakhachi and Gulmi districts following Heifer's model **"Passing on Gift"** combined with implementation of FFS support on goat rearing; Heifer co-shared USD 2.5 million of resources for this subcomponent.
40. **"Increasing access and outreach of financial service sub-component"** to the rural areas was implemented in partnership with the Nepal Agricultural Cooperative Central Federation Ltd. (NACCFL) and Sana Kisan Bikas Laghubitta Bittiya Sanstha Limited (SKBBL). NACCFL was engaged for the formation and mentoring of the Small Farmer Agricultural Cooperative Limited (SFACL), while SKBBL was involved for wholesale financing to the SFACs and further capacity development of affiliated SFACL.
41. Agro Enterprise Centre (AEC)- was engaged as an Implementing Partner for the implementation of the **access to nonfinancial services subcomponent"** for agribusiness development services, marketing and market information services and purchase contract (buyback agreement) of the seed, milk and goat meat. These services were delivered through the **"investment window"** that was established with each District Chamber of Commerce and Industry (DCCI) of the Programme districts.
42. The original programme budget of KUBK-ISFP was USD 59.75 million consisting of Government own funds of USD 7.3 million; IFAD Loan and Grant of USD 19.5 million (SDR 12.85 million) equivalent each; Heifer International co-financed USD 2.5 million; Beneficiary

contribution of USD 10.95 million was expected as part of contributions to individual grant funded sub projects.

43. A Supplementary (IFAD) Loan of USD 5 million (SDR 3.27 million) was added to this for rural finance activities in May 2014. A partial cancellation of USD 10 million by amendment to the Financing Agreement was effected on 21 November 2017 limiting IFAD financing to Loan funding of SDR 9.29 million and IFAD Grant funding of SDR 9.33 million.
44. At programme completion financing totalled USD 46.8 million, made up from: IFAD support of USD33.3 million, IFAD loan of USD 14.41 million, IFAD grant of USD 14.36 million, and a supplementary loan of USD 4.52 million; contributions from GoN of USD 5.36 million; Heifer International Nepal USD 2.5 million; and beneficiaries USD 5.64 million.
45. As of May 11 2020, final programme disbursements amounted to USD 45.59 million made up of USD 3.87 from GoN; USD 14.36 million from IFAD Loan; USD 12.360 million from IFAD Grant; USD 4.53 from IFAD Supplementary loan; USD 2.52 million from Heifer and USD 7.96 million from Beneficiaries as per details in the following table.

46. Table 1: Final Disbursement Status

Financers	Total	% of total
Government of Nepal	3,875.0	8.6
IFAD Loan	14,360.0	31.5
IFAD Grant	12,360.0	26.7
Supplementary	4,528.0	10.0
Heifers	2,517.0	5.6
Beneficiaries contribution	7,959.0	17.6
	45,599.0	100.0

47. Note: This include designated account balance of USD 0.269 million loan and USD 0.212 million grant

B.4. Target groups

48. The target area of the KUBK-ISFP in the mid-hill region of Nepal exhibits high levels of rural poverty and relatively elevated population densities with significant agricultural potential for seed and livestock production, as well as the possibility of complementary activities with other development initiatives. This is compounded by substantial presence of disadvantage casts in the population and an increased feminisation of agriculture due to outmigration of men seeking employment overseas or elsewhere in Nepal. The overall target of 90,070 direct beneficiary's households (75 000 at design, increased to 90 070 during MTR), had at a minimum to included 50% women, 12% Dalit and 26% Janajati participation in the programme activities.
49. The programme target area combines high poverty levels covering seven districts (Arghakhachi, Gulmi, Pyuthan, Rolpa, Rukum (East) in Province 5 and Rukum (West) and Salyan in Karnali province). All target districts are in the hills zone, and they include areas with the lowest Human Development Index in Nepal, as well as poverty levels that are considerably above national rural average. Household consumption and income in the target regions are less than 70 percent of national levels, while perceived inadequacy of food consumption is 60 percent higher.
50. The programme applied a targeting strategy to ensure equitable representation based on remoteness, women participation, Dalit and Janajati participation. On geographical targeting, communities closer to the roadhead and/or district headquarters were targeted under milk and cereal seed value chain for the perishable and/or bulky nature of the commodity. More remote communities were targeted mostly for higher-value, low-volume commodities such as vegetable seed and those of non-perishable nature such as live goat. Promotion of SFACLS covered both types to ensure access to financial services for the needs of the participating households.

C. Assessment of project relevance

51. Relevance of the programme is rated as satisfactory (5)

C.1. Relevance vis-à-vis the external context

52. The Programme goal and objectives at design were relevant to the participating households and in full agreement with the development goals, national sector programmes and development policies and strategies of GoN. The programme was designed within the context of

IFAD's COSOP (2007-2012) and aligned with the key government policies relating to poverty alleviation and development of the agricultural sector which stress the importance of developing economic opportunities for poor farmers and producers in the mountain areas, the need to reduce gender, ethnic and cast-related disparities through greater inclusion of disadvantaged groups in development, and the need to engage with the private sector through public/private partnership modalities to facilitate future sustainability of interventions. The ADS approved in 2015 stresses the need for improved seed and breed to support and promote agriculture commercialisation in Nepal; the KUBK-ISFP, though designed earlier than the ADS, is fully aligned with the long term strategy now formalised in the ADS.

53. The programme approach of supporting the production of TL seed was appropriate to both increase returns to farming in the programme area, and also addresses food security by improving the quality of seed inputs to producers generally. This programme provided the largest single investment in the country in support of the seed sector and its strategic investments with the private sector seed companies significantly enhanced their capacity for future expansion of quality seed production and trading at national level. IFAD's investment in the country in the seed sector also triggered the development of Seed Vision 2025 in 2013 where the programme significantly contributed to in technical and financial terms to this initiative.
54. Interventions in forming clusters of dairy producers linked to outlets in market towns and with access to improved communication infrastructure also were highly relevant for those in the geographic catchment where this perishable commodity could be effectively marketed. Diversification into less perishable processed products looks likely to expand this range. There are instances where these new openings are providing opportunities for entrepreneurial youth to return to the village to take up profitable dairying as an occupation. The PCR mission interacted, during the field validation, with a number of young migrant returnees enthusiastically running their business profitably with support from KUBK-ISFP in livestock sector.
55. The programme approach to increasing goat meat production that supported introduction of exotic germplasm of higher productivity potential was particularly suited to increasing production in more remote locations. The development of community managed breeder herds (also supplying germplasm to 36 Districts in Nepal outside of the programme area), combined with improved feeding strategies and training in husbandry, proved highly relevant to the needs of small holders in the programme area.
56. These priorities remained valid through the life of the programme and indeed signal appropriate interventions for expansion in future. The need to address basic food security through increasing yields of basic cereals remains, and the programme approach of developing high quality seed as a basic input to the farming system needs to be more widely adopted.
57. Increasing goat meat production for more remote and less advantage communities and sectors of society also remains valid and worthy of further expansion beyond the programme area. The approach to development of dairy also remains appropriate though confined to locations close to significant market opportunities.

C.2. Internal Logic

58. The Programme design drew heavily on prior experience in a number of initiatives and programmes undertaken over the preceding decade, both within Nepal and beyond. Detailed analysis of a number of prior IFAD, ADB, DFID, SDC and nationally funded programmes addressing seed and livestock production issues was undertaken and the programme approach designed taking these lessons into account. Of particular import was the recognition of the need to functionally engage with the private sector in supporting small scale seed producers to access the market; the development of associated farmer groups to consolidate produce; and interaction with buyers and their linkage into sources of finance through the institutional development component of the programme.
59. Similarly predicating milk and meat production enhancements on addressing an identified market outlet also arose out of the analysis of earlier interventions such as IFAD supported Leasehold Forestry and Livestock Programme and High Value Agriculture Project, as well as ADB funded Community Livestock Development Project.
60. In tackling the areas of improved seed production, increased milk production and increased goat meat production, the programme correctly targeted agricultural activities that were relevant to the prevailing production systems in the programme area, offered opportunities to increase returns to farmers through increasing sales, in terms of both volume and value, and facilitated farmer access to sources of investment to allow them successfully engage with identified market opportunities.
61. The theory of change based as it was on a forward looking vision of commercial farming engaged with the private sector predicated on profitable production, transformation and sales of increased volume, correctly identified the end point of change. The programme approach to supporting private sector entities through competitive grants, organising producers into producers' groups to enhance their bargaining power, removing primary constraints to increased production through access to key inputs (certified seed, better animal genetics) and adoption of improved production practices and husbandry through a programme of training and farmer field schools, correctly built the stepping stones to move towards the end point vision.
62. The Log Frame was well constructed with clear logical links relating activities on the ground through the results tree to achieving the required outcome. Most assumptions and risks were correctly identified. During the course of programme implementation, significant changes in the political system of Nepal were implemented. This was recognised at design stage and flexibility in programme implementation was recognised as being necessary to address the likely changes.
63. Resources in terms of budget provided were more than adequate to provide to achieve proposed objectives. Indeed one of the comments of the MTR was that initial costings were too generous which, when taken with other observations, resulted in reduction of the programme funding envelope by USD10 million while increasing the number of targeted beneficiaries households at the same time.
64. However, in terms of time to fully embed the programme initiated changes the programme would have benefited from additional time. The sustainability of some interventions, particularly in support to farmers in improving and sustaining seed yield increases would have benefited for several more seasons of support. Additional time would have allowed the programme assist the devolved local government and municipalities build capacity in supporting extension outreach.
65. With hindsight it may have been an option to utilise the extra resources to extend the programme to support sustainable embedding of changed practices with farmers. These funds could also have supported engaging further with FAO and Heifer in additional FFS development and extension outreach, and utilising FAO for further policy development to support commercialisation of agriculture.

C.3. Adequacy of design changes

66. The MTR highlighted slow disbursement rate as an issue, citing late start of the Programme, over-estimation of unit costs at design, exchange rate gains, inability to spend capacity building funds due to the Government of Nepal's restriction on the use of loan funds for this purpose, inability to recruit FAO and Heifer International due to GON procurement rules and suspension of the livestock component at the outset of the programme as major contributory factors. Limited staff capacity, mobility and low level of operational support were also noted as contributory factors. This led to a partial cancellation of USD 10 million by amendment to the Financing Agreement on 21 November 2017; reduction of more than 25% in the funding envelope!. This highlights some serious questions on the adequacy of the original design, in that it did not correctly identify the cost structure, failed to adequately ensure the inclusion of other development partners to add value to the programme, and initial poor implementation of programme activities.
67. Changes were implemented during programme implementation arising both from recommendations of the MTR but also based on implementation experience and the demands of partners and beneficiaries these are summarised in the Table below.
68. *Table 2: Changes on Programme Against Design*

Design	Changes
Envisaged expansion of the programme to additional Districts	No expansion undertaken following MTR Recommendation, remained active in the original Districts,
Utilisation of FAO for policy support	Did not eventuate due to Government procurement constraints.
Utilisation of Heifer to support the livestock development component in four Districts	Restricted to two Districts self-funded by Heifer
No line of credit provisioned during design stage, establishment of 30 SFACLs envisaged	Line of credit worth USD 8 million provisioned to SFACLs expanding target to 75 SFACLs
Original target of 75 000 Direct beneficiary HH	Increased to 90 000 Direct beneficiary HH after MTR as unit costs in design were considered over estimated.
Original IFAD contribution of SDR 25.7 million equally sourced from Loan and Grant funds	Reduced to SDR 18.62 million made up of Loan of SDR 9.29 Million and Grant of SDR 9.33 million
Breeder seed and Foundation seed produced by the Nepal Agriculture Research Council (NARC)	Licencing of foundation seed with private seed companies under GoN supervision, freeing up NARC to concentrate on increasing supplies of Breeder seed.
All seed crop inspections undertaken by government staff	90 Private seed inspectors trained and utilised for TL seed crop inspection

69. The changes effected proved both timely and adequate as programme avoided being assessed as problematic and returned to track after MTR and implementation of revisions, however the need to reduce funding by more than 25% to help achieve this, does not reflect well on either IFAD or Government.
70. The changes in Government structures after promulgation of new constitution in 2015 were significant, but as the programme was fully embedded in the Federal MoALD day to day disruption of activities was avoided, the implementing agency was flexible in its approach to the implementation realities this brought about, and adapted by channelling resources through Provincial Government. However additional time would have been beneficial to allow further strengthening of these institutions.
71. Stakeholders reacted positively to these changes with numerous innovations fully adopted by Government and partners after detailed analysis, for example the introduction of exotic goat genetics, development of community breeder herds, use of private seed inspectors, licensing private seed companies for foundation seed production. In addition the Government's consent to accept the supplementary loan to support established SFACLs demonstrated their engagement with the programme and willingness to take on more investment in this area.

D. Assessment of project effectiveness

72. Effectiveness of the programme is rated as moderately satisfactory (4)
73. The programme made notable progress despite several delays and weaknesses in the initial years of its implementation requiring reduction in financing of USD10 million which reduces overall performance. It did however achieve over 100 % outreach targets and increased outreach from 75 000 to 90 000 households (overestimation of unit costs in the design and failure to engage Heifer and FAO partnership due to Government procurement restrictions). Overall, it achieved 92% physical targets and 96.39% financial targets. IFAD fund disbursement reached 92.4% excluding initial advances. Heifer International disbursed 100% of its financial contribution. Beneficiary contribution was over 100% while government contribution was slightly more than 72%. The Programme managed 742 grant subprojects including small grants against its target of 540 subprojects mobilizing significant contributions [NRs.776.82 million (58.47%)] from beneficiaries. Of the total beneficiaries, 81% were women, 16% Dalits and 24% Janjatis against respective targets of 50%, 12% and 26% in comparison to 12% and 27% of Dalits and Janjati's proportion of population of the programme area respectively.

D.1. Physical targets and output delivery

74. Utilization of allocated fund

75. The initial estimated cost of the Programme was USD 59.75 million excluding USD 4.53 million of supplementary loan. However, the financing plan of the Programme was reduced to USD 46.80 million by cancellation of USD 10 million of IFAD fund readjusting the financial plan. Of this, USD 45.11 (96.39%) million was utilized. As of Dec 2019, cumulative disbursement of the IFAD fund (loan and grant) was 30.76 (92.40%) million including balance of initial advance which is in the process of liquidation. Co-financing from Heifer International was 100% utilized.

76. Delivery of the matching grant subprojects (SPs)

77. The Programme delivered 742 grant subprojects (seed-482 and livestock-260) including 195 small grants (seed-130, livestock-65) against its target of 540 grant subprojects (seed-360, livestock-180). 26 (3.4%) grant sub-projects were cancelled. Total contract award under the sub-project were NPR. 1,592.14 million, of which NPR. 1,455.2 million (91.3%) were disbursed. The share of the beneficiary's contribution was 58.5% of total subproject costs. The quantum of beneficiary contribution in excess of 50% of sub project cost and their overall contribution of USD 7.96 million (141% of design), strongly indicates their interest in implementing the programme activities and the relevance of those activities to their needs.

78. Component 1. Extension of the formal seed sector: Physical Targets and Output.

79. Component 1 utilized 98.93 % of allocated fund and supported 25 829 households (57% female, 13.5% Dalit and 23% Janajati) against a target of 22 500; supported 482 producer groups and cooperatives against a target of 360.
80. Capacity of 17 126 farmers on quality seed production was enhanced through organization of 661 FFS demonstrations and 10 629 persons received seed production and marketing training from various training events. NARC completed 241 Participatory Variety Selection (PVS) demonstrations at local level against its target of 270. Some 7 942 mt (7 407.5 mt. of cereal and 534.5 mt. of vegetable) of raw TL seed were produced against the target of 3 750 mt - more than double.). The total result of this TL seed production is estimated to be sufficient to sow some 237 949 ha. of food crops (27 198 ha. Paddy, 162 156 ha. Maize, 13 041 ha. Wheat, and 35 554 ha. Vegetables) against the target of 100 000 ha of land, again achieving more than double the target and contributing to Nepal's production of staple cereals..
81. These sub projects contributed to productive infrastructure such as rehabilitation and development of small irrigation structures, seed storage, and farm machinery etc.. Additional irrigation facility was provided to 1 447.6 ha of land through 286 micro-irrigation schemes benefiting 8 549 households increasing resilience. Local level seed storage facility with capacity of 677 mt. (cumulative) was developed constructing 31 storage houses. The grants also enabled the purchase of a range of machinery to increase field level productivity such as power tillers, threshers, corn shellers etc.
82. Three Private Seed Companies (PSCs) were encouraged for foundation seed production through competitive grants to support their investment in seed processing equipment. Through programme support, PSCs invested in construction of climate controlled storage facilities, seed processing equipment, transportation, generators and seed testing laboratory facilities. The investment increased profitability of PSCs by reducing seed distribution and contract arrangement costs and production losses, resulting in gradually expanding annual production capacity up to 1 100 MT over 4 years. The investment has expanded market access for a large number of small seed growing farmers in a typical contract farming arrangement. They were further supported through ensuring access to breeder seed in collaboration with NARC and partnership with seed producers' group and cooperatives. The Programme support was also resulted in four seed storage facilities with a total capacity of 2 290 mt. linked to seed producers' groups and cooperatives and facilitated functional buyback agreement.
83. A Private vegetable seed company was also upgraded and expanded to meet domestic demand for vegetable seeds. Through programme support, the company invested in construction of climate controlled storage facilities, seed treating, processing, and packing equipment. As a result of such improvements, the company's annual operation increased from 75 MT up to 115 MT of improved vegetable seeds. The vegetable seed company produced 115 MT of vegetable seed of carrot, cauliflower, capsicum, chilli, onion, pea, radish, and tomato seeds. The total investment cost was NPR 30.0 million (USD 375 000), structured with beneficiary's contribution of NPR 15.0 million (USD 187 500), and the Programme contribution of the same amount through Competitive Grant Scheme.
84. An additional benefit has been the advent of non-project supported three (3) PSCs entering in the Programme area to engage with seed purchasing and production. This in effect is a positive 'crowding in' of additional private investment and is a clear indicator of the profitability of these activities and hence their sustainability.
85. The programme identified a shortfall in supply of foundation seed to support expansion of the private sector seed programme and in its review of the seed policy and with the support MoALD and introduced an innovation to allow NARC concentrate on the production of Breeder seed while licensing selected PSCs to engage in bulking up breeder seed to foundation seed, to feed into certified and TL seed. This improved the efficiency of the entire system.
86. The programme also contributed to the seed policy changes enabling the licensing of private seed inspectors. By programme completion some 90 such inspectors were licensed facilitating the inspection of 3 065 MT of TL seed crops.
87. **Component 2. Smallholder livestock development: Physical Targets and Output.**
88. Component 2 utilized only 76.18% of planned budget but supported 25 450 households (100% of its target) through 260 grant sub-projects

(target: 180) including small grant subprojects delivered through DLSOs prior to the changes following the adoption of the Federal governance structures. This was achieved through dairy clusters located close to population centers and access roads and through improved goat meat production for more distant locations. Improved links to market outlets combined with improved bred genetics and training in animal husbandry techniques were utilised to enhance productivity.

89. **A. Improving dairy productivity**

90. Dairy productivity intervention concentrated on 17 clusters located along road corridors with good access to markets and local towns. There were 4 789 milking cattle and 92 producers' groups and cooperatives in these clusters. The programme organized 62 forage campaigns to increase awareness on forage crops and fodder trees and support feed and nutrition of the dairy cattle as being one of the main determinators of production. Forty forage resource centers and 35 fodder nurseries were established^[8]. 861 cattle sheds were improved and dairy equipment such as feeder, drinkers, grinder cum mixing machines, and water tank etc. were also provided through the grant schemes. More than 116 039 doses of vaccines (FMD, HS and BQ) and 85 202 doses of anthelmintic were administered to dairy animals in these clusters. 78 animal health camps were organized for delivering animal health services in various pockets of the programme districts and 41 935 animals were treated. Fifty Veterinary Para Professionals were trained and financial support provided to 34 Professionals to establish business premises in the dairy clusters.
91. Improving dairy productivity was addressed, in addition to the nutrition and husbandry improvements above, through a process of breed improvement using both AI where 10 000 (52.6% of target) doses of Jersey semen, 1 800 (100% of target against 1000) doses of sexed semen, and 3 000 (37.5%) doses of Murrah semen were imported, and natural breeding through improved bull distribution. A total of 14 707 dairy animals received AI services, of which 7 441 (51%) were conceived and 6 573 (88%) gave birth to 3 340 female and 3 233 male calves. The conception rate of AI in cattle and buffalo was 52.9 % and 48.0%, respectively. Natural breeding services were enhanced distributing 99 Murrah buffalo bulls to dairy famers' group and cooperatives. These bulls served 15 682 buffaloes, of which 9 723 (62%) conceived and 8 857 (91%) gave birth to 4 671 female and 4 186 male calves.
92. Commercial milk production was promoted through the delivery of the 78 dairy matching grant subprojects both for production and dairy processing to enhance local entrepreneurship in the dairy clusters focusing on road corridors. There are 92 dairy farmer groups and cooperatives, organized 3 250 households with 4 789 milking cattle. The programme supported 18 chilling vats, 997 milk cans, 67 deep freezers, and 12 milk analyzers, other milk processing equipment^[9], transportation vehicle under grant matching grant sub-projects. Buyback agreements were signed and functional between milk producers' and local dairy entrepreneurs managing milk collection centers and processing plant for 4 812 litres milk per day.
93. Dairy farmers, entrepreneurs and government staff were trained on improved animal husbandry, livestock feed, fodder and forage, and market management. To ensure basic veterinary services in dairy clusters, 50 Village Animal Health Workers trained. Training was provided to 47 persons on dairy entrepreneurship including Milk Chilling Vat Operation, 67 persons on livestock product diversification and commercialization, 100 persons on artificial insemination and 80 technicians / entrepreneurs on livestock marketing management.
94. In summary for participating beneficiaries their gross income increased from NPR 8 751 per member to NPR 129 894, generating a FIRR form their investments in improved production of 15.5% with a Benefit:Cost Ratio of 3.08.

95. **B. Improving goat productivity**

96. A total of 75 (65 bucks, 10 doe) Boer goats were imported from Australia for goat productivity improvement. A Boer nucleus herd was developed with 21 pure Boer goats (16 Bucks, 5 Doe) placed at Goat Research Station, Bandipur to maintain nucleus herd to ensure replacement of the pure Boer stock (Bucks and Does) in nucleus and breeder herds after the completion of fertile life of the original introductions to ensure the sustainability of the actions. Fourteen (9 Buck, 5 Doe) imported Boer goats were placed to NLBO Pokhara, community groups and NARC outreach stations.
97. Two community managed Boer goat breeder herds were pioneered by the Programme as a significant innovation in empowering communities to undertake breeder activities with technical support from the programme and the national research system. Nineteen pure Boer buck were provided to the community managed Boer breeder herd in Diverna, Arghakhachi of which 3 died resulting in 16 active 100% breeding bucks. Strong support was provided after these deaths to further advise the operations of this breeder herd and improve nutrition, housing and management. The second breeder herd in Gwadi, Gulmi received 14 pure Boer bucks .
98. The breeding scheme was further extended to 12 multiplier herds (2 in each Programme districts) and supported with locally produced 329 Boer cross bucks of 50 % blood level from Breeder Herds. Both Boer breeding and Multiplier herds are supported with extension services such as training, herd and nutrition management, and veterinary services.
99. Boer semen of 10 000 doses (against its target of 13 000) was imported to practice AI services and 1 727 does were artificially inseminated using Boer semen. However, only 639 does conceived with 37 % conception rate. The success of the breeder herd and multiplier herd at community level could be combined in future with introduction of semen for Government farms and research institutions where higher technical levels can be maintained. This continuing introduction will be required to maintain genetic diversity in the breeding population and avoid any issues with inbreeding
100. A total 3 068 goat sheds were improved and supported with other productivity improvement equipment such as water tanks, chaff cutter and feeders. A total of 33 fodder nurseries were established to support fodder production and 385 500 sets of perennial forages like Co3, Co4 and Pakchong-1 or Super Napier were distributed in breeder and multiplier herd to increase winter forage production. The fodder trees and perennial grasses are expected to yield 8 771 MT of fodder dry matter sufficient for 48 061 goats for a year. PPR Vaccine and drugs for internal parasites control was given to 193 833 goats and 134 619 goats respectively. A total of 65 animal health camps organized and 25 369 animals were treated.
101. Goat producers' group and cooperatives were capacitated on improved goat production technology through 46 goat FFS and 1 160 farmers were benefitted (Target: 56 Goat FFS; 1 400 direct beneficiaries). The capacity of the farmers, entrepreneurs and professional enhanced though the execution of 169 training events such as AI, meat processing, paravet training, VAWH, livestock marketing etc. organized and a total of 3 900 persons were trained.
102. Entrepreneurship in commercial goat production and marketing promoted through the matching grant subprojects (goat production – 135 butcheries and 39 fresh meat outlets). Buyback agreement was established between goat producers' and meat processors for 8 465 goats (162.9 MT of meat) per year. Eight goat collection centres were constructed to promote live goat trade at local level. Besides, the

Programme has supported 27 slaughter houses and provided 39 weighing machine and 30 Deep freezers through grant sub projects.

103. Heifer supported more than 12 756 households (100% of target) utilising USD2.5 million of its own resources and implemented training on improving goat production and husbandry following their "passing on gift approach (POG)". Heifer's working approach is value based holistic community development (VBHCD) model wherein 512 self-help groups were formed, these SHGs were further organized into 16 cooperatives. These institutions collected and mobilized a sum of NRs. 59.33 million of share capital, reserves and saving funds. Heifer conducted some 16 Goat-FFS reaching 1,160 beneficiaries and 105 FFS facilitators were trained. Out of 36 trained CAVes, 34 are actively working in coordination with newly formed cooperatives. The POG model placed 7 462 female goats along with 597 breeding bucks of good local breed to enhance goat productivity in future. A total of 4 407 goat sheds were constructed or improved. Heifer also addressed feed availability through propagation of different fodder and forage species both on-farm and in the community forests, some 3 746 kg of seeds and 3 090 663 saplings were planted in 515 hectares of land. A total of 10 784 goats were vaccinated and dewormed. Milk and meat market linkages were facilitated through multi-stakeholder platforms that facilitated signing of buyback agreements between producers and private dairies. 58.4% milk producing and 81.84% goat producing households now sell their produce in formal markets against a target of 60% and 25% respectively.

104. The programme collaborated and coordinated with government network. Capacity of the DLSOs, NARC, NLBO has been improved through support on physical infrastructures development and vehicle support which has been instrumental for effective service delivery and mobility.

105. Component 3. Local Entrepreneurship & Institutional Development Component: physical targets and output

106. Component 3 utilized 97.60 % of allocated budget. Training curricula were delivered for a broad range of rural institutions to improve various services at local level. The programme invested for agriculture planning and implementation curricula in building capacity of local government staff and DADC members. Entrepreneurship, agriculture and veterinary protocol curricula were imparted to 119 agrovets and paravets. More than 19 500 persons were trained in aspects relating to business planning, cost-benefit analysis, value chains and gender issues in different courses. Nineteen persons were licensed to deliver retail agrovets services.

107. AEC facilitated access of programme beneficiary households, groups and institutions to non-financial services. Investment windows were set up in each DCCIs for providing business counselling services, facilitating purchase contracts with private sector entities and helping with preparation of grant proposals. MSPs helped in communication of price structure among farmers, municipality representatives, and local elites and generated great interest in engaging in similar buy-back arrangements (BBAs).

108. A. Strengthened Rural Institutions for sustainable services

109. The programme capacitated a broad range of the rural institutions as agro-vets and para-vets; farmer groups and cooperatives through training and other capacity development support. Producers' groups and cooperatives received both institutional development and technical trainings and 24 090 participants capacitated on cost benefit analysis (6 008 participants), GESI (7 289 participants), account and record keeping (2 828 participants) seed and livestock value chain (5 297 participants) and governance (353 rural institutions). The programme developed agriculture planning and implementation training package to build the capacity of VDCs staff and DADC members. Agricultural planning and budgeting training delivered to 182 VDC (against its target of 156). Training curriculum on cost benefit analysis, development management, and social inclusion and social mobilization organized for programme staff, DADOs and DLSOs staff and 556 persons trained to rollout the farmers' level training curriculum.

110. 72 Agro-vets in the programme districts were trained on agriculture and veterinary protocols (against its target of 25), 71 received training on entrepreneurship and business development; 19 received training on Retail Agrovets license.

111. B. Access to non-financial services

112. AEC worked as implementing partner to facilitate access to non-financial services for beneficiary households, groups and institutions. Six Investment windows (100% of target) set up at DCCI are well functioning to facilitate seed and livestock business and products marketing. The window provided services on counseling to develop business plan; market linkages and market information services; organization of MSPs at local level; facilitating BBAs, agribusiness promotional activities and trade fair; and policy advocacy.

113. MSP was working to resolving business issues, facilitating BBAs and product price negotiation platform with the participation of the producers', traders and other stakeholders. The cumulative BBA reached to 4 659. Mt. (cereal: 4 435 and vegetable: 224); 4 812 lit. of milk per day, and 8 465 live goats per year. A cumulative volume of 2 761 mt. of TL seed (cereals 2 471.55 and vegetable 289.68) have been traded to formal market as of December, 2019.

114. MSPs have helped in communication of price structure among farmers, municipality representatives, local elites and generated great interest in engaging in similar BBAs. There has been increase in the number of companies and their agents to buy seeds from KUBK-ISFP districts.

115. C. Increasing outreach of microfinance institutions

116. Programme engaged SKBBL and NACCFL jointly as an implementing partner with the aim to increase outreach of access to finance adopting cooperative approach. NACCFL engaged in forming Small Farmers Agriculture Cooperative Limited (SFACL), mentoring, and enhancing the capacity of the SFACL to function independently. The role of SKBBL is to recognize them as their partner and extending wholesale loan for retail lending to the shareholders of the partner SFACLs from the resources provided to them as a line of credit of USD 8.0 million.

117. Access to financial services considerably improved through the network of 75 SFACLs organizing 40 622 (90% of target) rural households. All 75 SFACLs were women-led cooperatives with 38 533 (95.14%) women members (target 50%). These SFACLs offer saving and credit services and are mobilizing NPR. 1 825.02 millions resources including NPR 475.87 million of members' savings and remaining borrowed capital from SKBBL^[10]. All (100%) SFACLs members participated in the savings scheme and loan was extended to 21 330 (target 33,000) members to invest on income generating activities. SFACLs' lending on agriculture sector was 94.78% and remaining 5.22% was on off-farm activities. Out of total lending, dairy sector constituted more than 27.3 %, for goat 26.11 %, for seed and fresh vegetable production 37.67 %. Lending operations started only after the MTR and exhibits an increasing trend in covering the members of the SFACLs.

118. Component 4. Programme coordination and management

119. The quality of Programme management is considered to be moderately satisfactory (4).

120. Programme coordination: The programme built strong partnership with its implementing partners with MoUs revised as required. There was a Project Steering Committee headed by the Secretary, MoALD to review quarterly the project progress and provide necessary approvals. The meeting of the Programme Steering Committee was organized timely and as per the need and provided clear direction, resolving any policy issues that arose during Programme implementation. This has been instrumental to effectively collaborated with public institutions and local bodies[11]. The Programme developed good grant operating guidelines and implementation manuals and several knowledge products.
121. Programme Management: The programme established the PMO in Butwal to support the six programme Districts and set up technical units to support the three programme implementation components. However the programme had difficulty in retaining senior technical staff particularly in the Livestock Component and this necessarily impacted on programme delivery. Three Programme Managers deployed for a period of seven (7) years. The improved quality of Programme management was a key factor in the success of the Programme post MTR. The physical and financial progress for the implementation of annual work plan and budgets was moderate and no year exceeding 80% of the progress against the AWPB except in FY 2012/2013. The programme lacked efficient human resource management system. It utilized 72.2 % expert and technical services against the target as of December 2019 due to delay in initiation of the recruitment process by the PMO at the early stage of the Programme Implementation, lengthy recruitment process, and frequent turnover of the field staff because of low motivation and further opportunities. Despite, the programme managed to settle the grant subprojects with high level of the beneficiaries' financial contribution. Though 27 subprojects were cancelled, the target of the implementation of the grant subprojects were fully met.
122. Financing and Expenditure: The total expenditure was 97% including beneficiary's contribution and cost of other financial institutions. A sum of USD 31.25 (93.84 %, including remaining balance in designated account until the reporting period) of the IFAD fund was utilized followed by USD 7.96 million of beneficiary's contribution. Heifer consumed 100% of its financial target. Furthermore, only 72% of the government as a counterpart fund is utilized. Programme was quite successful to fetch high level of beneficiary's contribution owing to strong local ownership and appreciation of the Programme. Overall Expenditure in three out of four components namely local entrepreneurship and institutional development, seed and programme coordination and management components was 100% of the allocated budget while expenditure on livestock component was 80% of allocated budget.
123. Adaptive design and management: The Programme integrated adaptive design and management for programme management. It accommodated and made minor changes as per the needs on the ground without losing its orientation to achieve the overall Programme goals and objectives. It demonstrated good balance between prescriptive and participatory approaches. The steering committee and PMO provided both adequate guidance on the principles for implementation, as well as flexibility in creating necessary adjustments based on the local context. The realized excess financing has been adjusted and reallocation of the funds made as per the need.

D.2. Rural Poverty impact

124. Rural poverty impact is rated as moderately satisfactory (4)

125. Programme Outcomes

126. Outcome 1. At least 100 000 ha are sown with TL seeds of cereals and vegetables.

127. As against the target of 100 000 ha of land to be sown with TL seeds of cereal and vegetable, 237 949 ha of land (238%) has been sown by cereals and vegetables. This has been due to high motivation of farmers and their recognition of the importance of using high quality seed as a basic input. The programme beneficiaries have gradually recognized the need to switch to TL seeds as evidenced by notable change in seed replacement rate among the farmer. The Seed Vision 2013 estimates the SRR rate in Nepal in 2011 as 11%, 9% and 11% respectively for Paddy, Maize and Wheat. The design report estimates that SRR in the hills of Nepal (programme area is all hills) in major cereals ranges 1.5 – 3 %. The 2018 supervision mission confirmed that SRR in KUBK-ISFP districts in 2017 recorded at 19% in Paddy, 24% in Maize and 20% in Wheat. In vegetable, this rate was 50%, 60% and 96% in Radish, Bean and Onion. A follow up study in 2019 indicates that the SRR in the above crops reached 21.05%, 25.07% and 25.8% for Paddy, Wheat and Maize respectively. Table 4: Outcomes: Indicators, Targets and Achievements

S.N.	Outcome	Indicators	Unit	Targets	Achievements	% of Achievements
1	Increased production of TL seeds and marketed	At least 100,000 ha are shown with TL seeds of cereals and vegetables	Ha	100 000	237 949	238
2	Improved HH incomes through sustainable, market-driven agricultural productivity improvement	At least 60% of dairy HHs and 25% of goat HHs selling produce to market				
		Dairy HHs	%	60	88	147
		Goat HHs	%	25	59	236

3	Improved HH incomes through rural financial interventions	At least 65 SFACLs with satisfactory financial governance, regular savings by 95% members, cumulative repayment of loan more than 95%, annual general body meeting held and regular election processes used				
		SFACLs formed	No	65	75	115

128. Target groups had acknowledged the importance of TL seeds production and continued policy support of the Government and role of private sector. There exist evidence that production of TL seeds and proportion of TL seed marketed has increased.

129. Outcome 2. At least 60% of dairy HH and 25% of goat HH selling produce to markets.

130. Annual Outcome Survey of the Programme 2019 demonstrated that 88% of the dairy HHs and 59% of the goat HHs are selling milk and live goat respectively to the market. This is 147% of the target in case of dairy HHs and 236% in case of goat HHs. Their exist evidence that HH income has improved through sustainable, market driven agricultural productivity improvement.

131. Outcome 3. At least 65 SFCALs with satisfactory financial governance, regular savings by 95% of members, cumulative repayment of loans more than 95%, annual general body meeting held and regular election processes used.

132. The programme supported the formation of 75 SFACLs (115% progress against the target). SKBBL and NACCFL have provided the technical backstopping support to 75 SFACLs and their capacity has been improved. These cooperatives conduct Annual General Meeting (AGM) every year on time, 100% shareholders / members of these SFACLs participate in regular savings scheme. About 40% of them have borrowed from SFACLs and their cumulative repayment rate is over 99%. The board of directors are appointed in the AGM for the tenure of 3-4 years and they are selected either by consensus or election.

i) Household income and assets

133. Household income and assets is rated as satisfactory (5)

134. Household income of seed growing households has increased with annual average income from cereal, i.e. rice, wheat, maize; and vegetable seeds reaching NPR. 27 333, NPR. 12 103, NPR.17 476 and NPR. 35 000 respectively; whereas for dairy and goat farmers it reaches NPR. 144 000 and NPR 277 000. The programme endline survey shows average score of beneficiary households assets ownership at 4.66 which is 16% higher than the non-beneficiaries households. The financial analysis indicates a incremental household income increase with programme (compared to without programme) of NPR 134 205 where value of labour is accounted as income (Table 13) in programme year 13 or 14.

ii) Human and social capital

135. Human and social capital is rated as moderately satisfactory (4)

136. KUBK-ISFP invested in development of human capital on several levels, building technical capacity of farmers themselves, by supporting institutions at local level though the SFACLs, at District level through development of Private Seed Inspectors (90) and building capacity of DADO's and DLSO's in FFS curriculum development and delivery. The programme, for the first time in the country, trained 105 FFS facilitators from among the lead farmers besides the government technical staff. Comparison of effectiveness of these Farmer Facilitators were rated higher than those of government technical staff by the participants. Farmers Facilitators are working as a permanent resource persons for the community. The programme trained 17 126 farmers from 360 seed producer groups though 661 FFS.

137. On dairy productivity, 50 Village Animal Health Workers trained. Training was provided to 47 persons on dairy entrepreneurship including Milk Chilling Vat Operation, 67 persons on livestock product diversification and commercialization, 100 persons on artificial insemination and 80 technicians / entrepreneurs on livestock marketing management.

138. The programme through the DLSO's capacitated Goat producers' group and cooperatives on improved goat production technology through 46 goat FFS benefitting 1 160 farmers). The capacity of the farmers, entrepreneurs and professional were enhanced though the execution of 169 training events such as AI, meat processing, paravet training, VAWH, livestock marketing etc. organized; a total of 3 900 persons were trained. Heifer implemented training on improving goat production and husbandry following their "passing on gift approach" in which 512 self-help groups were formed and organized into 16 cooperatives. Heifer conducted some 16 Goat-FFS reaching 1,160 beneficiaries and 105 FFS facilitators were trained.

139. The programme also built capacity in the communities through formation of 75 SFACLs in which all executive membership received training on leadership, cooperative management as well as ensuring that all 150 full time staff also were trained on bookkeeping and accounting. The SFACL component stressed gender inclusivity with 87% of groups formed strengthened with women in leadership position. Due to women holding such decision-making positions, women's social standing has been increased. The appreciation of Gender issues was enhanced across the programme through Gender, Equity and Social Inclusions (GESI) training. As a result there was overwhelming membership of women (95%) in SFACLs which also contributed to higher participation of marginalized groups (Dalit and Janjati) in membership (44%), in number of borrowers (50%), in loan portfolio (52% of amount borrowed) and in positions on the Board of Directors in the Executive Committee (36%).

140. Several training curricula were delivered for a broad range of rural institutions including Programme staff to improve various services at local level. More than 23 402 persons were trained in aspects relating to business planning, cost-benefit analysis, value chains and gender issues in different courses. Nineteen persons licensed for retailed agrovet services.

141. The program also identified 25 smart women in agriculture with dynamic and will for Super Action in Agriculture and Livestock sector, who possess the capacity to inspire and support followers of their Innovative works.

iii) Food security

142. Food security is rated as moderately satisfactory (4)

143. KUBK-IFSP was designed to improve household incomes through sustainable, market-driven productivity improvements, with the aim to scale-up an agriculture-led growth model for 90 070 households (including disadvantaged families). Though the programme did not, *per se*, directly supported farmers on food security, as it was focussed on income improvements. However it did address two pillars of Food Security in increasing availability of food and increasing access through higher incomes. The third pillar of Food Security – Utilisation – was not tackled in the programme design. Assessment of total seed production and sales (within and outside the district) reveals that out of a total production of 7 942 mt (cereals – 7 407 MT and vegetables – 535 MT), 6 850.08 mt. is traded within the district which includes sales to agro-vets, government agencies and other direct sales whereas only 1 091.92 MT is sold outside the district (mainly to seed companies and/or other municipalities). The TL cereal seeds sold within the districts supports 181 977.75 Ha (calculated using NARC seed rates) of improved production with expected incremental production of cereals amounting to c. 182 078. MT. This increase in basic cereal availability contributed to local and national food security.

144. The substantial increase in production of dairy and meat production and its trading on the market through the BBAs for 4 812 litres milk per day and for 8 465 goats (162.9 MT of meat) per year also contributed substantially to the food availability of the population. This is borne out by the RIMS endline survey reported that 7.3% of beneficiary households reported periods of hunger or food insecurity with the remainder of 92.3% considered food secure.

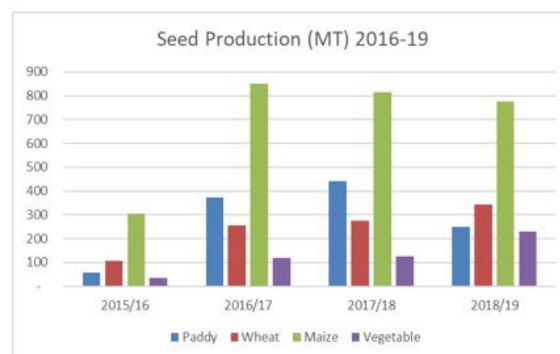
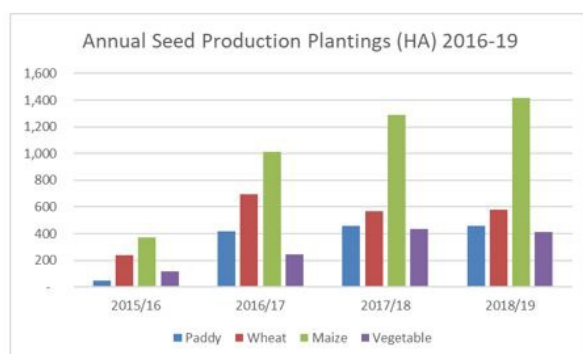
145. The same survey infers 3% and 2% decrease in acute (low weight for height) and chronic (low height for age) malnutrition respectively, among children below five years due to programme intervention. Another indicator measured by the survey among the same children was under weight (weight for age) which decreased by 1%. Attribution for this improvement is likely to the increased availability and access to improved/diversified diet, however for nutritional outcomes to be more clearly attributed it would have been desirable to include specific interventions on behaviour change communication as diet and utilisation of available foods as well as specific monitoring instruments.

iv) Agricultural productivity

146. Agricultural productivity is rated as moderately satisfactory (4).

147. Some 13,475 beneficiaries reported benefits from improved seed production through 360 Producer Groups. Programme investments in irrigation, improved storage, farm machinery, access to market outlets through partnership with PSC's Agrovets and District and Municipalities all contributed to these gains. The increased SRR on crops, as reported above (para 139), contributes to improved crop productivity. The programme was able to engage farmer groups for only two to three seasons supporting their activities through training and physical support and in building sustained links to market. A longer engagement of up to five seasons would have allowed follow up engagement and fine tuning of programme interventions in an iterative manner. In absence of this, the sustainability of these improvements is questionable.

148. The programme data on seed production (see graphs below) illustrates a sustained increase in area planted for maize seed production however the actual quantity of seed produced peaked in 2016/17 before falling off later despite a larger area being sown. A longer term engagement with the communities would have allowed this to be studied and assessed as to the root causes. Paddy production also has an early rapid increase in area sown that then stabilises. Again further time to engage with the producers would have allowed this to be studied in greater detail. Area planted to wheat seed production increased initially but then fell back in the latter years of the programme, while production of seed continued to increase; it would have been advisable to undertake a study on the drivers of farmer decisions not to increase wheat plantings. Area planted to vegetable seed production increased annually.



149. The programme was not designed as an extension programme *per se*, focussing instead on developing links to the private sector, facilitating access to inputs, institution strengthening and policy advocacy. The component on FFS was well received by participants but would have benefitted from further iterations and repetition. As mentioned elsewhere the disbandment of the DADOs under the new federal structures left a gap in provision of this type of support. This is a lacuna that needs to be addressed if producers are to be supported in attaining sustained increase in productivity.

150. The Programme constructed 31 storage facilities trained a total of 17 126 farmers on quality seed production by organising 661 FFS. Besides, 10 629 farmers received seed production and marketing training from various events.

151. A valuable lesson out of this is the need to work for longer periods with farmer groups to fully imbed changes (3 to 5 seasons repetition)

and to include a specific extension component in similar interventions in future where new practices and techniques can be transferred to farmers while also linking to the needs of market outlets. To be truly effective this needs to be undertaken in a iterative back and forwards discussions where farmers and purchasers are engaged in assessing the benefits and/or negatives of new approaches.

152. Livestock productivity was greatly enhanced through the introduction of both improved genetics and improved husbandry (feed, fodder and housing). The Boer goat genetics increased weight gain over the local goat breeds by 18% (25% blood line) and 50% (50% blood line) according to an NARC study. Anecdotal accounts from participating farmers indicate that the actual weight gain in the field was much higher than this. As a consequence there is unsatisfied demand for breeding animals from the Boer breeder and multiplier herds. The community breeder herds distributed breeding bucks to all States of Nepal such is the interest in their enhanced production potential.
153. However to attain these increased growth rates requires increased feed and fodder availability. In this the programme supported distribution of fodder seeds and planting material to increase feed availability. This when combined with improvements to housing funded through small grant sub projects materially increased production of Goat meat to the extent that the programme target of a 25% increase in productivity was exceeded, delivering a 34% increase by programme completion.
154. The programme target of 5 500 households receiving two 2 goats with the improved genetics was exceeded by over 2 000, with 7 527 receiving two animals by programme completion.
155. For dairy productivity, while progress was made it was not as straightforward as for goat. Dairy, perforce, was restricted to road corridors with swift and easy access to market for this perishable commodity. Some 17 dairy clusters were formed, 92 producer groups were linking nearly 5 000 animals by programme completion and producing nearly 26 000 l of milk per day (during the low winter season – will increase substantially during the monsoon period) 17 000 l of which is formally traded and 85% of these groups have established buy back arrangements with private dairies (programme target was 35%) for some 5 800 litres per day.

v) Institutions and policies

156. Institutions and policies are rated as satisfactory (5)
157. The programme collaborated with a wide range of institutions ranging from private agro/para-vets, seed companies, seed producer groups and cooperatives, AEC/DCCI; Heifer International, Sana Kisan Laghubitta Bittiya Santha (SFDP), NACCFL, research institutions like NARC, government's extension services such as DADO, DLISO, SQCC and regional seed testing labs, etc for implementing its activities.
158. The programme capacitated a broad range of the rural institutions as agro-vets and para-vets; farmer groups and cooperatives through training and other capacity development support. Producers' groups and cooperatives received both institutional development and technical d on cost benefit analysis, GESI, account and record keeping, seed and livestock value chain and governance. The programme developed agriculture planning and implementation training package to build the capacity of VDCs staff and DADC members. AEC worked as implementing partner to facilitate access to non-financial services for beneficiary households, groups and institutions. Six Investment windows established by DCCI are well functioning to facilitate seed and livestock business and products marketing. The window provided services on counseling to develop business plan; market linkages and market information services; organization of MSPs at local level; facilitating BBAs, agribusiness promotional activities.
159. Several of the rural institutions created by the programme on seed and livestock component are likely to sustain due to their linkages with the market, increased income and ensured credit from the cooperatives. The 75 SFACLs have successfully mobilised member savings and are linked via NACCFL to SKBBL to support wholesale lending to affiliated SFACLs utilising the USD8 million resources from the programme. The private seed companies with increased handling, processing and storage facilities and linked with the producer groups/cooperatives are profitable and are expected to continue their operations. The crowding in of non-supported companies confirms the attractiveness of the seed business for the private sector.
160. However, the change in governance and administrative structure of the county resulted in disbandment of the District Agricultural Development Office (DADO) and District Livestock Services Office (DLISO), who were primarily responsible for the extension activities of the programme. This has implications for future engagement at the local level, as the new municipal level institutions will need strengthening to become essential partners if the results of the programme are to sustain into the future.
161. **Seed policy interventions.** KUBK-ISFP supported the organisation of the National Seed Summit in Kathmandu on June, 2015 which led to the seed sector policy review resulting in the adoption of the seed certification of Truthfully Labelled seed. This further encouraged the programme beneficiaries to engage in production of this higher value crop compared to food crops. The programme also contributed to the discussion and revision of the national seed policy to allow licensed private sector seed companies engage in foundation seed production thus freeing up the scarce resources of NARC to concentrate on breeder seed production, in turn increasing the efficiency of the chain. By programme completion, these had produced 935 MT Foundation seed against a target of 880 MT. The programme also contributed to the seed policy changes enabling the licensing of private seed inspectors. By programme completion some 90 such inspectors were licensed facilitating the inspection of 3 065 MT of TL seed crops. The programme also triggered the development of Seed Vision 2025.
162. **Livestock Policy interventions.** KUBK-ISFP provided a vehicle for importation of Boer Goat genetics and introduced the practice of community managed breeder herds at district level in support of the national research systems maintenance of pure bred foundation flocks. MoALD realized the need for a Goat Breeding Policy following the success of the programme introductions of the Boer Goat and constituted a working group to draft the policy where IFAD and KUBK are included as members. MoALD is currently finalising the National goat breeding policy. The programme also developed "Boer goat sales and distribution programme operation guideline, 2017" that were endorsed by MoALD and which regulates sale of cross Boer Buck (50 %) at the rate of NRs. 1000/Kg live weight and for the Boer cross Doe (50 %) at the rate of NRs. 600/Kg live weight.

vi) Access to markets

163. Access to markets is rated as moderately satisfactory (4)
164. The programme adopted a strong focus on engagement with the market, utilising private sector actors in seed, goat and dairy value chains. It supported an improved business enabling environment by strengthening a range of rural institutions which are active in the agriculture sector specifically, producers' groups and cooperatives, agrovets/paravets, private entrepreneurs, DCCIs, and local bodies. The public investment providing matching grants and institutional development activities catalyzed private sector investments and linkages to develop

local entrepreneurship. The Programme mobilised NPR 777.04 million of private investments (58.4%) in seed, milk and goat value chain from Programme beneficiaries. The programme encouraged private sector seed companies through a competitive grant process to expand their seed cleaning, grading and quality assurance systems, thus increasing their throughput for seed and increasing their need to source seed from the programme areas. Concurrently the programme supported seed producer groups to engage with these companies and other purchasing bodies such as Paravets, municipalities etc under buy back agreements through the MSP process. This has resulted in crowding in investment from other private sector actors that now see opportunities in profitable seed production and trading with additional companies now operating the programme area.

165. AEC/DCCI effectively delivered non-financial services required for production and marketing incentives through the Investment Windows (IW) established at each DCCI of the Programme districts. The IWs served as a one-stop-business-shop and facilitated product marketing through purchase contracts. Introduction of buyback agreements for both seed and livestock has increased trust and confidence along the supply chain enabling both farmers and seed companies/cooperatives expand at a greater rate than would have been possible without these confidence building measures. Of the total, 93% of seed producers; 90% goat producers' and 85% milk producer groups and cooperatives have entered into purchase agreements with traders. Programme supported seed companies have purchased 1,092 Mt. of seed and sold to the regional market beyond the Programme districts.
166. The Boer Goat breeding herds and multiplier herds were in the fortunate position of selling into an unsatisfied market for these highly productive animals, the programme facilitated access for programme beneficiaries to these units and developed guideline to regulate the pricing structures. This proved highly successful and encouraging both producers and buyers.
167. The dairy clustering approach where dairy production clusters were linked to retail dairy outlets close by, that could handle this perishable commodity, stimulated production through implementation of buy back agreements that guaranteed prices for producers and product for the retail outlets. These retail dairies were supported through the grant and subprojects of the programme to enhance their capacity by supporting purchase of chillers, stainless steel benching, processing machinery for manufacture of condensed milk, sweets etc.
168. The KUBK-ISFP disbursed NRs. 800.00 million as subsidized loan to the SKBBL which lent 100% of funds to the 75 supported SFACs. These institutions organized 40 510 households (90% of target) and offering saving and credit services mobilizing NRs. 1 760.2 million of resources. SFACs' lending on agriculture sector was 94.78% and remaining 5.22% was on off-farm activities. Out of total lending, dairy sector constituted more than 27%, for goat 26%, for seed production 18% and for vegetable farming 20%. The credit supplied by these cooperatives was instrumental in supporting productive investments and in allowing small farmers engage with market opportunities.

D.3. Gender equality and women's empowerment

169. Gender equality and women's empowerment is rated as satisfactory (5)
170. The programme gave high consideration to gender equality and women's empowerment. Table below shows component-wise male and female along with Dalits, Janjati, and other beneficiaries. The programme benefitted almost 91,794 households, assuming only one person of each household is accounted here, 81.91% beneficiaries were female. Looking at the data on social inclusion, the programme supported 16.05% Dalit and 24.16% Janjati households.

171. Table 3: Gender and Ethnicity

HH covered	Dalit			Janajati			Other			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Component -1	1174	1928	3102	2462	3351	5813	6581	10333	16914	10217	15612	25829
Component -2	343	3617	3960	1130	5357	6487	3669	11334	15003	5142	20308	25450
Component -3	332	7348	7680	714	9177	9891	936	22008	22944	1982	38533	40515
Total	1849	12893	14742	4306	17885	22191	11186	43675	54861	17341	74453	91794
Total HH covered %	2.01%	14.05 %	16.06 %	4.69 %	19.48 %	24.17 %	12.19 %	47.58 %	59.77 %	18.89 %	81.11 %	100 %

172. The programme facilitated dynamic and super action oriented women in agriculture and livestock who have capacity to male followers on their innovative works. Twelve such women were awarded by the State (Province) 5 government as the Smart Women in Agriculture. One of such KUBK smart women, Ms. Gopa BM, a seed farmer from Rukum - West participated in Asia Regional Consultation workshop in November 2018 in Bogar, Indonesia organized by the Indigenous People Forum at IFAD. Another Smart Woman participated in a regional workshop in Kathmandu organized by Asia-Pacific Farmer Programme (APFP).

D.4. Adaptation to climate change

173. Adaptation to climate change is rated as moderately satisfactory (4).
174. The programme success in increasing incomes though the culture of seed crops and/or improved goats and cattle reduced out migration of people from the hill areas to plains or major cities. Their cultivation of land which otherwise could have remained barren, the Programme

contributed to positive impacts on climate change.

175. Programme support for small irrigation also contributed in reducing risks of climate change on rain-fed land supporting farmers overcome the more erratic rainfall patterns associated with climate change and building resilience into the production system. In addition the increased incomes from more diversified livelihood options directly contribute to climate change adaptation through increased resilience and financial resources.
176. The development of the increased seed production system allows more rapid multiplication of improved varieties of seeds adapted to a changing production environment. This has benefits not only for the farmers producing the seeds but also for those using the subsequent seed as input to their production systems.
177. The enhanced production of forage and planting of fodder trees combined with stall feeding of animals, contributes directly to replanting of hill slopes and reduces land degradation, increases biomass accumulation resulting in reduction in greenhouse gas emissions.
178. Through saving and credit cooperatives, the farmers can enhance their coping strategy in situation of shocks building their resilience
179. Any infrastructure supported by the programme was small scale in nature, consisting of irrigation channels (no dams were constructed), small scale machinery, and storage facilities to reduce crop loss and wastage. All of these investments contribute to building resilience in the farming community and helping adapt to climate change uncertainties.
180. The investment in improved livestock housing was combined with increased planting of fodder and forage crops combined with a cut and carry system of stall feeding. This further reduces damage to the natural environment that can be caused by unrestricted grazing of larger numbers of animals and will help in the regeneration of hill slope cover in the programme districts and reduction in soil erosion.

D.5. Environment and natural resource management

181. Environment and natural resource management is rated as moderately satisfactory (4).
182. The programme gave due considerations on environmental impacts including land acquisitions while constructing infrastructure such as collection centers and small scale micro irrigation schemes. No large infrastructure investments were undertaken and the programme worked within the local environmental setting, adopting production systems adapted to the hill environment namely improved seed, goat and dairy production.
183. KUBK-ISFP encouraged the adoption of good agricultural practices through farmer education utilising the FFS methodology. This stresses an integrated approach to both crop and livestock production that minimises use of harmful chemicals, adoption of integrated pest management and ensuring proper feeding strategies so that both plants and animals are naturally resilient.
184. Any infrastructure supported by the programme was small scale in nature, consisting of irrigation channels (no dams were constructed), small scale machinery, and storage facilities to reduce crop loss and wastage.
185. The investment in improved livestock production was combined with increased planting of fodder and forage crops combined with a cut and carry system of stall feeding. This reduces damage to the natural environment that can be caused by unrestricted grazing of larger numbers of animals and will help in the regeneration of hill slope cover in the programme districts and reduction in soil erosion. Farmers are efficiently managing fodder, forage and pastureland for both goat and cattle, the enhanced production of dung was used as organic manure in the kitchen gardens or farmlands. Waste disposal facilities were designed in each slaughter houses and dairy processing unit

D.6. Targeting and outreach

186. Targeting and outreach is rated as moderately satisfactory (4)
187. The programme applied a targeting strategy to ensure equitable representation based on remoteness, women participation, Dalit and Janajati participation. The population composition in programme districts comprises women 51%, Dalit 12% and Janjati 27%. In terms of outreach, at completion, the programme exceeded targets for direct beneficiaries reaching 91 794 households (target revised upward by MTR from 75 000 to 90 070), and also reached out beyond the programme districts to substantial numbers of indirect beneficiaries through supply of TL Seed and access to Boer goat genetics. The detailed analysis of targeting geographical locations of producer groups revealed that 18.4% beneficiaries were from the accessible area (≤ 5 km from the highways and/or district headquarters), 27.9% from the mid-accessible area (>6 to ≤ 25 km) and the remainder (53.7%) were from the more remote area (over 25 km). Women, Dalits and Janjatis were also specifically targeted. All SFACs had over 95% women participation thus attaining a total of 81% women beneficiaries against the target of 50%. Dalits and Janjatis, the poorest groups in Nepal, were specifically targeted, achieving 16% (target 12%) and 24% (target 26%) at completion respectively. For goat production, a minimum of 30 percent from indigenous or lower caste families, this reached 40% at programme completion.

D.7. Innovation

188. Innovation is rated as satisfactory (5)
189. The programme introduced several important innovations in both the seed production system and for livestock.
190. For seed production, the programme successfully advocated for NARC to focus on Breeder seed production rather than, as previously, dividing its capacity between Breeder and Foundation seed production. As part of this the Government endorsed a policy shift to support specific Licensed Private Seed Companies engage in Foundation seed production under appropriate supervision and inspection. This removed a major bottleneck in the seed multiplication process with NARC then able to increase the amount and availability of Breeders seed into the system and utilise the private sector for foundation seed, certified seed and Truthfully labelled Seed.
191. A further innovation introduced by the programme was the development of guidelines to support private seed certifiers, this was endorsed and adopted by the Ministry of Agriculture and Livestock Development. At programme completion 90 private seed inspectors had been trained and carried out inspections supporting production of 3 065 metric tons of TL seed.
192. In livestock production the innovation by the programme of introducing exotic Boer Goat genetics proved extremely positive with the

enhanced growth rates well received by farmers and significantly increasing meat availability.

193. The programme introduced a further innovation of establishing two Community level Breeder herds to supply 50% breeding bucks to multiplier herds. This had not been undertaken previously in Nepal and while initial teething troubles resulted in the death of 3 animals, more intensive training and support, particularly on livestock nutrition has now resulted in these performing extremely well. Indeed, breeding animals from these herds have been distributed across 36 Districts of Nepal. This has further led to enactment of Goat Breeding Policy and the MOALD has constituted a task force to present a draft for consideration.

D.8. Scaling up

194. Scaling up is rated as moderately satisfactory (4)
195. Several of the programme activities and innovations lend themselves to wider adoption both in terms of scaling up and scaling out.
196. The introduction of Boer goat genetics is already being scaled up and out. The successful establishment of community breeder herds and multiplier herds has increased availability of these higher productivity animals. Already Provincial and Municipal Governments are allocating resources for expansion. Arghakhachi District only has supplied breeding animals to 36 Districts of Nepal which indicates both the interest and potential for scaling up of this intervention. A number of private entrepreneurs from Chitwan, Nawalparasi, Surkhet, Gorkha and Udayapur districts have established Boer Goat farms based on the KUBK-ISFP's success.
197. The GoN has already developed a policy for expansion of the SFACL model throughout the country on a gradual basis. The Central Government is adding resources to increase the number of such cooperatives through each year's national budget. The government has mobilized Asian Development Bank (ADB)'s financing of USD 50 million loan to support SKBBL.
198. The success of developing dairy clusters linked through buy back agreements to dedicated dairy outlets in nearby population centres, or along transportation corridors, has considerable potential for replication in similar areas across the country. This can be encouraged and supported by municipal Governments in areas with the relevant matching criteria.
199. From GoN perspective there is a strong desire to scale up seed production as sufficient supply of high quality seed as a basic agricultural input underpinning food security of the country is very desirable. However, the technical complexity indicates that further technical assistance would be of benefit in designing a seed production plan for the country, matching opportunity to areas of comparative advantage, and setting policy supports in place to encourage private sector seed companies invest. Municipalities are investing in seed production and supply, but are providing raw seed purchased from one farmer group to another farmer group, without undertaking the necessary cleaning, grading and quality assurance steps. This will not allow generation of full benefits that can accrue from use of high quality seed, but is also likely to impinge on the market operation for private sector seed companies that have to incur the added costs for these steps. Development of small scale seed cleaning and grading at local level would be worth investigation to overcome this constraint.
200. The Multi-Stakeholder Platform (MSP) has emerged as an effective tool to link smallholders to the value chain and is an increasingly accepted tool for market led projects. It has already spread beyond the programme sphere with a self actuating MSP set up in Butwal (the location of the PMU) for a local fish value chain by the Prime Minister's Agriculture Modernization Project. MSPs have helped in communication of price structure among farmers, municipality representatives, local elites and generated great interest in engaging in similar BBAs. There has been crowding in the number of companies and their agents to buy seeds from KUBK districts.

E. Assessment of project efficiency

E.1. Project costs and financing

201. Programme costs and financing is rated as moderately satisfactory (4)
202. The initial estimated cost of the Programme was USD 59.77 million excluding USD 4.53 million of supplementary loan. The mid-term review of March 2016 noted a slow disbursement rate and the programme funding was adjusted accordingly with a reduction of USD 10 million across both loan and grant funding. Hence, the financing plan of the Programme was scaled down Nov 2017 to USD 46.80. Against the revised financing plan, USD 45.6 (97.4%) million was utilized. As of Dec 2019, cumulative disbursement of the IFAD fund (loan grant and supplementary account) was USD 31.3 (93.8%) million including balance of the initial advance as designated account, which will be liquidated before financial closing of the project.
203. Subsequent disbursement greatly improved as shown on rate of delivery under each finance categories. There was significant contribution from the beneficiaries themselves, indicating their strong buy in into the programme and the appropriateness of the programme to their needs.
204. All programme expenditures are pre-financed by the government. The PMO reimbursed the expenditure to the government treasury after receiving replenishment in the designated account. The programme, thus, did not face issue regarding counterpart funding from the government side. The other financier – Heifer International, provided timely financing to all activities and in full scale as designed.

E.2. Quality of project management

205. The quality of Programme management is considered to be **moderately satisfactory (4)**. The quality of Programme management was a key factor in the success of the Programme post-MTR, however prior to then there were significant shortfalls. Three Managers served over the seven years. There were issues in the early years of implementation which lead to a change in programme personnel and also a reduction in IFAD funding of USD 10 million. Though the physical and financial progress for the implementation of annual work plan and budgets was at best moderate with none of the years exceeding 75% of the progress except in FY 2012/2013 with 93.05% of the budget under the APWB spent. Overall average expenditure against AWAP target was 59.5%. Despite this, the programme achieved over 100 % outreach targets, 92% physical targets and 97.4% financial targets. IFAD fund disbursement reached 93.8% including balance of the initial advance as designated account,

206. The programme 'Improved seed for Farmers' is far more complex than the name implies, in addition to developing the seed sector for maize, paddy, wheat and vegetables, it also addresses livestock productivity in dairy and goat meat, local entrepreneurial capacity, savings and loans mobilisation and cooperative formation while building business linkages through value chain work and engaging private business to invest in the seed processing in the programme area. Despite this complexity, the programme managed to achieve a high disbursement rate at the end of its tenure, and ensured that the supplementary loan to promote SFACLs access to finance was fully utilised.
207. The programme was designed and effective during the time while Nepal was undergoing a difficult political transition. Once this transition was officially completed in 2015, the subsequent administrative adjustment created several difficulties on the ground, such as disbanding of implementing (government) partners at the district level, establishment of subnational governments at State (Province) and Municipal level. Programme management successfully managed all these transitions to the devolved structures while delivering against targets within the programme timeline.
208. While the programme had good achievements in terms of gender and social inclusion in beneficiary participation it did not exhibit the same degree of inclusivity in senior posts within the programme administration which were heavily male dominated. This is an area that needs to be looked at for future such programmes so that a diversity of views is encouraged.
209. The Programme did develop good grant operating guidelines and implementation manuals and several knowledge products. The grant subprojects were successfully settled with high level of the beneficiaries' financial contribution. Despite, 27 subprojects being cancelled, the target of the implementation of the grant subprojects exceed targets.
210. The meeting of the Programme Steering Committee has organized timely and provided clear direction, resolving any policy issues needed for the Programme implementation. The financial reports (unaudited and audited) and other periodic progress reports were submitted as per the IFAD guidelines.
211. Human resource management, particularly in the early years of implementation, was a cause for concern, but was addressed by the MTR and the Government took timely and appropriate remedial measures. KUBK-ISFP planned to utilize 13 251 person months (government deputed: 1 224, contracted: 12 027) of experts and technical service for implementation of the Programme activities. The programme utilized only 8 401 person months (69.5%) of expert and technical services as of December, 2019. This was due to: (i) delay in recruitment by the PMO at the early stage of the Programme Implementation, (ii) lengthy recruitment process of the government of Nepal, and (iii) frequent turnover of the field staff because of low motivation and further opportunities.

i) Procurement

212. On the basis of the documents reviewed by the completion mission, KUBK procurement was mostly satisfactory over the years. Procurement system set up by the project largely followed IFAD's Guidelines and GON norms with adequate procurement capacity in place, given the long-term experience of staff. Procurement processes and procedures, as well as documentation filing systems were generally assessed as satisfactory. The project implemented almost all supervision recommendations related to procurement, over the years.
213. The programme recruited a dedicated procurement manager from initial start-up who continued to serve up to completion of the programme. This manager was supported by a dedicated consultant who provided timely support as needed. This contributed to a satisfactory procurement outcome throughout the programme life. The procurement manager also provided technical support to the various Province (State) Level ministries under State 5 when the structure was just put into place. His support was regarded instrumental in building the procurement capacity of these ministries and were well received.
214. The programme followed GoN procurement rules, consistent with IFAD Procurement Guidelines while SKBBL (SFDB), NACCFL and AEC of FNCCI followed their own procurement guidelines as per their MoU with the programme. A Procurement Committee responsible for procurement of goods and services as per approved procurement plan was established. The procurement process and contract management were found satisfactory. VAT of some of the items has not been recorded in the stock register. Physical verification of the fixed assets at PMU was conducted each year. Register of Contracts were shared with IFAD however some delays were recorded in some occasions.
215. Procurement Plans were prepared for each year and approved by IFAD. The programme successfully adopted the IFAD online procurement system – NOTUS from the beginning of 2019 and continued until the end of the programme. No procurement was declared as mis-procurement throughout the programme life.

ii) M&E and KM

216. The monitoring and evaluation system followed by the Programme was found to be very effective. During the implementation period, the programme developed various monitoring tools conducive to each technical component to capture the sub-project activities and outputs and outcome level data. The M&E system has also maintained the database of the outcomes level data, such as production and sales volume including sales value. *The table below shows that the category of the documents and materials produced by the programme.*
217. *Table 9: List of documents produced by the programme*

Category of document	Summary of materials produced by the Programmes
Video	Five video documentaries (KUBK with Rural People, KUBK in Agro Fair, Farm Economics, GESI and impacts of KUBK program)
Manual and guidelines and policy	Seed sector policy review, GESI strategy, GESI manual, seed technology manual, Farmers' Field School (FFS) Operating Guidelines on Quality Seed Production, Dairy FFS manual, MIS manual, Farmers Diary
Study reports	Study and analysis of goat value chain in Nepal, Dairy value chain in Nepal, Cereal seed value chain study, Vegetable seed value chain study, Study report on SRR, Study on community managed Boer Breeder herd, Study on Nutritional Management Programme in Buffalo, Cattle and Goat
Impact study and survey	RIMS survey 2017, updated baseline information including RIMS, survey, RIMS survey report 2019, Impact Study of Farmers Field School (FFS) Programme, Annual Outcome survey 2019, Study on Immediate Results Survey from Completed Sub-Project, Effectiveness of Institutional Development Project [KUBK-ISFP],
Booklets	KUBK-ISFP brochure (Nepali/ English), updated on Jan 2017, Breeder herd record book, cereal seed production booklet, vegetable production, crop and livestock insurance, KUBK MIS brochure,
Newsletter and success stories	Trimester Newsletter (Kissankalagi Unnat Biu-Bijjan Sandesh) (1st & 2nd issues), success stories

218. Under the M&E system, Management Information system (MIS) was integrated using tablet to collect sub-project level data in which staff were trained and it is operational.. Farmers' diary has also been introduced for farm level data, which was highly appreciated by the farmers consulted during the PCR mission. Regular monitoring from the PMO and PIU and joint monitoring with DADO and DLSO was practiced. This joint monitoring was highly appreciated by stakeholders. RIMS and AOS, impact survey, and end line survey were conducted by non-programme (independent) entities and the findings were shared with the stakeholders.

219. The programme made improvements to the targeting process during implementation as the Programme Implementation Unit (PIUs) and Investment Windows in each district helped identifying target beneficiaries. The PCR mission noted the implementation modality adopted by the KUBK-ISFP and criteria used for selection of the grant subprojects was valid and transparent.

220. Several success stories were captured and field level data on outputs and outcomes were shared with wider stakeholders, several knowledge products were developed and published for sharing experiences with the donor, government line agencies, and other stakeholders which were effective to raise visibility of the programme. A culture of the sharing programme learning through annual monitoring and sharing workshop has been practiced by all IFAD funded initiatives in Nepal. The KUBK-ISFP has also actively participated in this forum and also organized such events. The PCR mission concludes that monitoring and knowledge management was successful and effective.

E.3. Quality of financial management

221. According to programme supervision reports, audits and IFAD's systems, the quality of KUBK financial management has been satisfactory over the years. Programme budgeting, accounting, internal controls, reporting and auditing were assessed as being of acceptable quality.

222. **Programme Budgeting and Accounting.** The programme follows the GoN's budgetary and accounting system. The budget was released largely on time. The District Treasury and Controller Office (DTCO) introduced E-payment from 15 May 2018. Under E-payment, the DTCO makes payments to the bank accounts of the payees on receipt of payment order from the PMU. Accounting software is being used to maintain books of accounts based on government's system of cash basis accounting and generates statement of expenditures and other financial reports required by the government. Excel based system is being used to record expenditures based on category and component and generate statement of expenditures for preparation of the financial monitoring report (FMR) and WAs. The internal control system is generally satisfactory but actual expenditures incurred by the beneficiaries are not monitored by the finance department but the details are taken from M&E. Accounting and financial management system of the programme was in compliance with standard accounting practices of the GON and IFAD. Prior to the Mid-term review, the programme experienced notable disbursement lags due to more time required for staff / consultant mobilization. The programme used initial advance as designated account and it was used efficiently to solve the disbursement conditions.

223. **Staff qualifications and selection.** The programme design envisaged two full time staff to fully support the programme Finance Unit, one Government staff and then full time consultant from IFAD. During implementation these were increased to three accounts officers from

Government side and two separate full time finance consultants with a gap of one year where the position was left vacant. During this period the Finance Unit was supported by the IFAD external consultant on as needed basis. To ensure adherence to IFAD processes and procedures all staff in the Finance unit were recruited through a competitive process and were then supported with appropriate training, both within country and through attendance at specific IFAD courses overseas. In addition staff were supported through interaction with the various supervision missions of the programme. The staff possessed necessary qualification and quality of staff for overall financial management was highly satisfactory.

224. **Disbursement.** The programme has utilized 93.8% of revised IFAD loan of USD 14.4 million and 100% of the supplementary loan of USD 4.5 million whereas it has used 83.5% of revised IFAD grant of USD 14.4 million including the balance in designated account. The remaining fund as designated account is being used for the programme closing activities. The achievement in respect of use of Heifer International was 100% of the original allocation of 2.5 million. The government contribution in terms of revised allocation was 71.8% of USD 5.4 million whereas the contribution by beneficiaries was 142.1% of the revised allocation of 5.6 million (Table 5).

225. Table 5: Disbursement by Financier

Financers	Original allocation (USD Million)	Revised Allocation (USD Million)	Actual Disbursement (USD Million)	Delivery (%)
Government	7.3	5.4	3.9	71.8
IFAD Loan	19.5	14.4	14.4	100.0
IFAD Grant	19.5	14.4	12.3	83.5
Supplementary loan	-	4.5	4.5	100.0
Heifer International	2.5	2.5	2.5	100.7
Beneficiaries	11.0	5.6	8.0	142.1
Total	59.8	46.8	45.6	97.4

226. Disbursement by component is rated satisfactory (Score=5). The cumulative expenditure up to completion date is NPR 4,564.4 million against appraisal estimate of NPR 4,745.0 million (96.19%). The expenditure in respect of extension of the formal seed sector and Programme coordination and management has exceeded the allocation and the achievement is 102.41% and 101.28% of the allocation respectively whereas the achievement in respect of Smallholder livestock component is 84.3%. Disbursement under local entrepreneurship and institutional component was 99.14% (NPR 1437.6 million against revised appraised target of NPR 1,450.0 million (Table 6).

227. Table 6: Component Expenditures by Financiers (N'R '000)

Component	IFAD Loan	IFAD Grant	Heifer	GoN	Beneficiaries	Supplementary Loan	Total	Appraisal	% of Achievement
Extension of the formal seed sector	371,067.81	387,616.12		114,692.85	457,954.98		1,331,331.76	1,300,000.00	102.41
Smallholder livestock development	254,543.52	255,409.77	260,884.80	81,621.18	264,494.62		1,116,953.89	1,325,000.00	84.30
Local Entrepreneurship & Institutional Development	517,179.48	250,591.01		67,436.25	114,152.00	488,197.29	1,437,556.03	1,450,000.00	99.14
Programme coordination and management	251,591.67	275,719.32		151,234.64	-		678,545.63	670,000.00	101.28

Total	1,394,382.48	1,169,336.22	260,884.80	414,984.92	836,601.60	488,197.29	4,564,387.31	4,745,000.00	96.19
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228. It should be noted that this was achieved through a combination of reduced financing (USD 10 million) and increased programme delivery post adoption of the MTR recommendations. The MTR highlighted slow disbursement rate as an issue, citing late start of the Programme, over-estimation of unit costs at design, exchange rate gains, inability to spend capacity building funds due to the Government of Nepal's restriction on the use of loan funds for this purpose, inability to recruit service provider (Heifer International) due to GON procurement rules and suspension of the livestock component at the outset of the programme as major contributory factors. Limited staff capacity, mobility and low level of operational support were also noted as contributory factors. This led to a partial cancellation of USD 10 million by amendment to the Financing Agreement on 21 November 2017.

229. **Fund flow.** Programme did not experienced serious bottlenecks/ problems in funds flow. The programme account was maintained in Central Bank as an foreign currently account operated by Financial Controller's General Office. The programme prepares annual work plan and budget approved by Ministry of Finance and duly integrated in Line Ministry Budget Information System (LMBIS). MOF authorize MOAD for budget release and MOAD provide budget release authority to Programme Manager of KUBK. The programme manages disbursement using fund released by District Financial Controller's General Office in their account in private bank. The programme budget has been used under reimbursement process, wherein it prepares the Withdrawal Application of the expenses to submit it to IFAD for reimbursement and the same amount will be withdrawn from Programme in Central Bank. There was no significant issue as far as flow of funds in the programme is concerned.

230. **Withdrawal applications (WAs).** As on 31 December 2019, total disbursement of IFAD loan and grant is SDR 20,414,134.21 equivalent to USD 25,099,094.40. Information showing details on status of disbursement and fund balance is provided in following Table 7.

231. Table 7: Status of disbursement and fund balance

Description	Exchange Rate		Amount		
	NPR/USD	USD/SDR	NPR	USD	SDR
Disbursement Up to WA No 22	111.19	1.2255	2,710,674,168.55	24,377,693.07	19,892,438.14
Expenses incurred to be disbursed:	113.74		82,051,089.36	721,401.33	521,696.07
WA No. 24 to be submitted for January to June 2020	113.81	1.3828	8,700,000.00	76,443.19	55,281.45
WA No. 23 submitted before for December 2019	113.73	1.3828	73,351,089.36	644,958.14	466,414.62
Total Expenditures till December 31, 2019	111.27		2,792,725,257.91	25,099,094.40	20,414,134.21
Allocated fund	95.04	1.5209	3,164,669,200.00	33,297,720.00	21,894,000.00
Balance of original allocation			371,943,942.09	8,198,625.60	1,479,865.79
Balance at exchange rate of December 31, 2019	113.81	1.3828	2,950,761,934.28	31,047,050.57	1,479,865.79
Exchange Gain/(Loss)			213,907,265.72	2,250,669.43	0

232. **Coherence between AWPB and implementation.** This is rated moderately unsatisfactory (Score=3). Overall, the achievement against approved AWPB in the second year of the programme was less than 45% while in rest of the years it was more than 50%. The achievement fluctuated throughout the programme period. The programme has incurred expenditure of 58.8% during FY 2019-20 and an

average of all programme years is also 59.5% during the programme period. (Table 8).

233. Table 8: Summary of Expenses against AWPB (in NPR '000)

Fiscal year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
AWPB	21,000	339,272	471,212	842,120	1,391,108	1,122,817	638,784	136,100	4,962,413
Expenditures	19,541	144,788	255,422	569,497	696,304	794,837	392,425	80,055	2,952,869
% of achievement	93.05	42.68	54.21	67.63	50.05	70.79	61.43	58.82	59.50

234. **Programme assets handover plan.** The programme maintain the inventory register and drawn up the programme asset disposal plan prior to programme completion, presented the same in 17th and final Programme Steering Committee meeting of 16th September which agreed to the allocation of assets as follows

- Four wheeler vehicles will be handed over after programme completion in coordination and instruction of MoALD.
- Assets such as motorcycle, AC, camera, furniture, etc to be handed over with priority to Prime Minister Agriculture Modernization Programme (PMAMP), Super Zone, and local level agriculture and veterinary sections of State No 5 and Karnali State with records submitted to MoALD.
- Assets such as motorcycles, computers, furniture, etc bought by collaborating agencies such as Sana Kisan Bikas Laghubitta Bittya Sanstha Limited (SKBBL) and Nepal Agricultural Cooperatives Central Federation Limited (NACCFL) shall be handed over to them with records submitted to PMO and MoALD.

235. At the closure of the programme assets were transferred as above which was expected to be used as outlined.

236. **Accounting software.** Accounting software only implemented after midterm review. These factors contributed to delays in submitting interim financial reports, however as note below under audit matters no major discrepancy arose. After the installation of accounting software, it met the IFAD's reporting requirement and programme's needs. Use of accounting software improved efficiency on overall programme management.

237. **Auditors' performance.** The Office of the Auditor General (OAG) undertook KUBK's Audit. The Programme's Financial Statement (PFS) was prepared in accordance with IFAD Guidelines. Response of the audit remarks were made and settled timely. The Heifer International, AEC, SFDB and NACCFL submitted audit reports annually as per the MoU made between KUBK-ISFP and respective Partners. Audit of all the years was done and submitted to IFAD on time. IFAD's office of the Auditor General undertook periodic audits of the programme finances, all audit reports were unqualified and did not raise any particular concerns. In the final year audit, OAG raised some concern on outsourcing of the services to SKBBL, SFACL and AEC, and this was yet to be settled.

238. **Ineligible expenditure.** There were no ineligible expenditures identified during the programme. All the amount claimed in the withdrawal applications were reimbursed/replenished on time and there were no notable ineligible expenditure.

239. **Filing of programme records.** Programme financial records will be retained by the lead Implementing Agency Ministry of Agriculture and Livestock Development, will be transferred from the programme site and retained for the requisite period at central level in MOALD for the next 10 years.

240. **Programme financial procedures manual.** The programme's financial operation is guided and governed by programme financial procedures manual. The manual is clear, user friendly and was regularly used during project period.

241. **Closing activities.** Closing activities by and large were well planned and executed. Some items still need attentions specifically:

242. (a) Liquidation of the amount balance under designated account to cover expenditure up to official closing of the programme in June 2020.

243. (b) Final audit for last fiscal year already conducted and programme has to request OAG for audit of current fiscal year, which can only be completed between July and September 2020.

244. Submission of final WAs and final Audit report, handover of assets, filing of programme records etc.. has been properly planned for and timely executed.

245. **Programme Operation.** The programme operated continuously throughout its life, however, the Livestock component was suspended in the initial period due to disagreement among the partners relating to Heifer International (Nepal)'s involvement with the programme. The IFAD Country Office put some considerable effort into resolving this impasse, eventually resolving the matter with Heifer providing its own funds as a co-financing partner to support their work in two programme districts.

246. **Financial Governance.** IFAD's policy on anti-corruption, reporting mechanisms, confidentiality and use of the hot line were adopted by the programme and disseminated to all partners, participating institutions, organisations and private sector entities.

E.4. Project internal rate of return

247. Approach for ex-post EFA: The primary objective of the economic and financial analysis (EFA) is to validate the technical and financial viability of programme activities that were provided to the targeted beneficiaries, examine the impact of these interventions on family labour and household incomes and assess the overall economic contribution of the programme to the state economy.

248. Cost-benefit analysis method was used for carrying out the economic and financial analysis of the KUBK-ISFP at Completion. All incremental investment costs and incremental benefits were adjusted to December 2019 prices applying Nepal's GDP deflator. Incremental benefits were estimated based on actual physical outputs and likely chances of building up of incremental benefits during the remainder of the programme life period and considering production foregone. Prices were collected for all inputs and output commodities from the markets and adjusted them to farm-gate prices using standard conversion factor. Data compiled by the respective field units with the support of the PMO was used as basic sources of reference. Using all available data, both primary and secondary, the production models for each value chain were developed; from these, production models were aggregated to respective subproject models and finally the programme model with the help of FARMOD. More details are provided in Appendix-4.

249. Project performance indicators: Cost-benefit analysis yielded an overall IRR of 20.4% of the programme with an NPV at a 10% discount rate of USD 17.74 million and a BCR of 1.68. A positive NPV under the current Opportunity Cost of Capital of 10%^[12] indicated that the programme investments have been robust and sound. The switching value analysis indicated that the programme investments are worthy of sustaining a 41% decline in overall benefits or 69% increases in costs but are highly sensitive to simultaneous increases in costs and decline in benefits. If benefits delayed by two years (in effect, if the programme's future production activities take longer to become fully developed or established in particular the interventions started in preceding three years) then the IRR declines to 12% with a NPV of USD 4.34 million. Details presented in Appendix-10 are summarised in Table 10 below:

Table 10: Programme Performance Indicators

Indicator	scenario				
	Base Case	Cost Increases by		Benefits down by	
		10%	20%	10%	20%
IRR (%)	20	18	17	18	16
NPV (million USD)	17.74	13.91	11.53	12.28	8.28
BCR	1.68	1.52	1.39	1.46	1.31

250. Above programme performance indicators estimated at PCR were compared with those of the indicators estimated at Programme Design and these are presented in Table 11 below:

Table 11: Comparison of Programme Performance Indicators

Programme performance indicators	Ex-ante Appraisal a/	Ex-post at PCR
IRR %	23%	20%
NPV on discounted cash flow (NPR million)	1,600	1,987
BCR of discounted cash flow	1.5	1.7
a/ Although no systematic EFA was carried out at Design, its performance indicators were far more robust than the ex-post indicators at PCR.		

251. Major interventions under KUBK-ISFP and number of participating households, household incomes by value chain are given in Table 12 below

252. Table 12: Commodities, Number of participating HHs and HHs incomes

Commodities	# of operating households	Adoption rate (%)	Actual number of HHs	Incremental Gross Income (NPR)	Incremental input cost (NPR)	Incremental Labour (NPR)	NPV at 10% (NPR)
Vegetable seed production	3,515	60	2,109	202,000	50,600	36,300	67,949.2
Cereal seed production	16,754	30	5,026	166,000	41,000	38,000	(8,074.7)
Cereals / vegetable seed production	5,560	40	2,224	256,000	66,000	34,000	27,123.4
Dairy cattle / buffalo	5,154	65	3,350	170,000	6,000	29,000	34,186.2
Goat c/	20,246	75	15,185	123,000	4,000	18,000	31,926.5

Small scale dairy enterprise	17	75	13	1,050,000	66,000	14,000	410,729.2
Meat / Bucheries	28	90	25	565,000	54,000	14,000	442,276.7
Agrovet / paravet	10	80	9	290,000	54,000	14,000	96,559.7
Seed enterprise	4	100	4	19,500,000	6,000,000	492,000	2,162,385.4
SFCLs supported micro-enterprises	40,622	40	16,350	26,000	1,000	4,000	15,787.0
Total, average	91,910	45	44,295	108,374	13,172	17,647	23,624
a/ One Ropani = 500 m ² and area as reported during 2019/20; b/ average area operated by a household, and area under other crops not included; c/ Number of goats (including buck, does, kids) maintained by a households;							

253. **Assessment:** It is inferred from the household models that all interventions are financially viable with the sole exception of cereal seed production which has a negative NPV.

254. It is deduced from the Switching Value Analysis (SVA) that in the order of priority goat, followed by dairy and vegetable seed VC must be supported as these are financially viable. As households manage their household expenditures by pooling incomes from other sources such as remittance, livestock, wages, services, other subsidiary occupations etc and **if household labour is excluded from the production costs, then all value chain models are financially viable and sustainable.** For other value chains, significant support in the form of financial assistance and inputs etc will be necessary.

255. Household incomes from KUBK-ISFP interventions: The immediate benefits from the programme are increased productivity-through the introduction of better management and improved farming practices of the value chain commodities. This response is expressed as increased household incomes and these are shown in Table 13 below. **Table 13: Household Incomes at full development stage**

	Without programme	With programme c/	Incremental
All households income (NPR/hh) a/	18,500	123,305	104,805
All households income (NPR/hh) b/	58,750	192,955	134,205
Household labour (person-days/hh)	115	199	84
a/ value of labour excluded; b/ value of labour accounted as income; c/ likely achievement in programme year 13 or 14			

F. Partners' performance

F.1. IFAD's performance (Quality of supervision and implementation support)

IFAD's performance (Quality of supervision and implementation support)

256. IFADs support to the programme is rated as moderately satisfactory (4). IFAD's support to the Programme implementation through its Country Office (CO), visiting missions, trainings, and communication with IFAD Headquarters was timely, relevant and of a high quality. However, there were, on occasions, delays in providing consent or approval of the AWPB and other procurement documents. Programme design is open to criticism as noted by the MTR, highlighting over-estimation of unit costs, and failure to ensure that the planned capacity building and partnership with FAO and Heifer International were not fully elucidated in the design to obtain full Government commitment.

257. The IFAD Country Office, Nepal personnel and Retainer Consultants were in constant contact with Programme management. They paid

close attention to implementation status and attended important KUBK-ISFP workshops and gatherings. IFAD also assisted to prepare and finalize the annual AWPB and procurement plan, and to revise financing plans through reallocation of resources between expenditure categories..

258. This close support was particularly relevant in the early years of programme implementation as several serious issues placed the programme at risk of entering problem programme status. Specifically the suspension of livestock component for the first year relating to difficulties the GoN had in utilising the services of Heifer International (Nepal), this impasse was resolved through the facilitation of the CO in finding an acceptable solution whereby Heifer provided its won funds as a parallel co-financing partner.
259. IFAD fielded 11 supervision and implementation support missions. The input from the MTR was particularly relevant in successfully reorienting the programme, and the resulting reduction in IFAD funding was borne out by the status now, at programme closure, where high disbursement rates have been achieved.
260. IFAD provided comprehensive training for Programme staff on Procurement and Financial Management, Monitoring and Evaluation and Experience Capitalization IFAD advisory support, both from headquarters and the local country office, on financial management and procurement in addition to programme management were provided in a timely and effective manner and were essential in avoiding implementation bottlenecks.

F.2. Government's performance

261. Government's performance is rated as moderately unsatisfactory (3) .
262. Adequate counterpart funds were provided on time and to the quantum needed for effective programme implementation. This was important as GoN operated on an up front funding basis seeking reimbursement from IFAD funds after the fact.
263. However, difficulties in the early years of programme implantation lead to delays and significant underutilisation of resources. In particular late start of the programme, slow disbursement rate due to Government's restriction on use of loan funds for capacity building and engagement of FAO and Heifer International. The latter significantly delayed the commencement of the livestock component. Limited staff capacity, mobility and low levels of operational support in the early stages of programme implementation were also an issue. This was resolved following the MTR and the reduction in the funding envelope from IFAD. However, it does presage issues that should be addressed in any future formulations where the involvement of external partners need to be fully agreed at formulation, and the need to initiate programme activities with alacrity once agreements are signed.
264. Government however in general was responsive to IFAD's recommendations and in proactively addressing implementation issues. A positive feature of the Programme was the active participation of the Government in the Programme design (with the above caveats) and their active participation during Programme implementation.
265. Government remained committed to the programme throughout its life, actively participating in formulation, mid-term review and in programme completion review missions. However, the government could have managed the administrative transition associated with the new Constitution of Nepal 2015 in a more streamlined manner. In particular the disbandment the DADO and DLSO, created a vacuum towards the end of the programme period. Significant effort is needed to recreate and capacitate these functions under the new devolved structures.

F.3. Other partners' performance (including co-financiers)

266. Direct implementation by Heifer International (Nepal) of the **"goat productivity improvement sub-component"** with USD 2.5 million co-financing of Heifer resources was satisfactory. Heifer outreached to more than 12,000 households with high level of social inclusion. It successfully implemented all the activities as per the AWPB of respective fiscal year and achieved financial and physical progress. All financial logs were maintained and audit report submitted timely. Heifer utilized 100% of its resources allocated..
267. NACCFL and SKBBL executed the **"increasing access and outreach of financial service subcomponent"** in the Programme districts. NACCFL successfully mobilised and supported 75 SFACLs and outreached more than 40 000 households. Management of the all SFACLs handed over to the community and most of the SFACLs were affiliated to the SKBBL for wholesale financing and further capacity development.
268. Both NARC and Seed Quality Control Centre engaged fully with the programme on development of the seed sector while NARC also engaged with genetics management of Boer goat. Both agencies contributed substantially to the seed policy review, NARC delivered 539% and 280% of targets for cereal and vegetable foundation seed respectively. Two Government farms retained Boer 100% blood stock and undertook semen maintenance for the programme. This ensures ongoing access to these improved genetic strains that can be further scaled up and replicated.
269. The DADO and DLSO at field level contributed in the early part of the programme to farmer engagement, training and implementation of the FFS programme. However, these have been dismantled under new constitution. This had implications for programme delivery particularly in relation to FFS implementation over the final two years of programme operations.

G. Assessment of sustainability

270. Post Programme sustainability of the KUBK-ISFP is considered to be moderately satisfactory (4) based on the likelihood that benefits generated by the Programme will continue after KUBK-ISFP completion based on the strong results, financial and economic incentives created, engagement with the private sector and the high level of beneficiary ownership combined with the ongoing commitment of the government.
271. The KUBK-ISFP has already handed over the physical infrastructures to the concerned authority for use and maintenance. Other assets such as vehicles, electronic goods, furniture etc. are earmarked for handover to the relevant DCCIs for the continuation of the services, Goat Breeder and multiplier herds, dairy cluster etc. will be assigned to the communities in consultation with local bodies.

272. **Institutional Sustainability** Producers' groups and cooperatives- the KUBK-ISFP has capacitated 360 seed producers' groups, 92 Dairy producer groups and 512 self help groups, 75 SFACLs and 16 other cooperatives for their governance and social cohesion. Social sustainability of these is likely as the groups and cooperatives deliver tangible benefits to the members from the grant projects, and also in collecting savings, accessing loans and increasing negotiation positions with buyers through the MSPs and Investment Windows,-.
273. The agrovets/paravets and butchers, private seed companies, agribusinesses linked to dairy and goat producers as private sector entities motivated by profit, are likely to sustain after the closure of the programme.
274. The management of the SFACLs is only handed over to the community after maturity and are linked with a national level bank for wholesale credit for a period of 13 years, thus ensuring there ongoing viability. The USD 8.00 million fund provided by KUBK-ISFP to this partner bank has been ring-fenced which ensures ongoing access to wholesale credit for these cooperatives..
275. The SFACLs should continue to grow and prosper as they meet a perceived need in the communities for savings and loan mobilisation. Their continued access to finance from the Banking sector will be a requirement if they are to continue expanding into the future. The scope of activities undertaken by these savings and loans organisations could be widened in future to provide additional benefits to their membership though bulk purchase arrangements for inputs, and at a further stage of development engaging in market linkage activities.
276. **Social Sustainability:** The programme adopted a clear inclusion policy addressing GESI criteria and ensuring high women, Dalit and Janjati participation. The support to local institutions particularly the SFACLs will help to promote further social inclusion in future and promote the sustainability of the engagement of these disadvantaged sectors of society. The focus of the project on developing economic activities that are suited to the more remote locations and that deliver economic returns to small farmers and entrepreneurs also contributes to ongoing sustainable social change and addresses a key desired outcome for the Government (cf. paragraphs 45 and 46). The managerial and financial capacity of the rural institutions participating with the KUBK-ISFP was both collectively and individually upgraded with Programme support through many outreach programs. The Programme also enhanced social capital and ensured that communities were aware of the potential additional benefits of working collectively rather than as individuals to achieve scale and improved market access through buyback agreements. The capacity of poor households to generate incomes was also developed and their organizations and communities strengthened.
277. **Technical Sustainability:** The programme adopted the FFS methodology to impart detailed technical knowledge to the beneficiaries and as such the knowledge will remain in the communities. The technical sustainability of goat meat and milk production is predicated on their engagement with a profitable market outlet and this is clearly the case. For seed production the technical viability of vegetable seed and maize seed production is sustainable, however for paddy and wheat it is unlikely that production will continue in its current form.
278. An area of concern is the provision of advice and extension support to small farmers under the revised structures of Government. The Provincial Ministries of Land Management, Agriculture and Cooperatives need considerable strengthening and capacity development to take on this role and this is an area that the Government should give some consideration to.
279. **Economic sustainability:** Given the increasing returns to beneficiaries, private sector entities involved in the value chains supported by the project and SFACLs is strong indicator of future sustainability and indeed expansion in particular activities. Farmers are convinced of the positive benefit cost analysis of TL seed production of Vegetables and Maize as are the PSCs involved; there is clear evidence of further crowding in of companies to the sector following the successes of Programme supported businesses. Boer goat introductions are spreading rapidly, the innovations in milk marketing are also likely to continue beyond the Programme period as the milk buyers are diversifying their product lines into more profitable items. The recent changes in the Federal policy increasing import tariffs on milk and milk products, and enforcement of health certificate for imported goats are likely to further support the sustainability of the livestock value chain.
280. **Environmental sustainability:** The production technologies promoted through the KUBK-ISFP was not highly intensive nor dependent on high levels of external inputs, e.g. the livestock production systems linked to local fodder and forage production, use of small scale irrigation infrastructure, use of good agricultural practices for seed production all minimise any negative effects on the local environment.

H. Lessons learned and knowledge generated

281. The programme approach of supporting the production of TL seed was appropriate to both increase returns to farming in the programme area, and also address food security by improving the quality of seed inputs to producers generally. This programme provided the largest single investment in the country in support of the seed sector and its strategic investments with the private sector seed companies significantly enhanced their capacity for future expansion of quality seed production. In this the kick starting of investment in seed processing through the competitive grant programme was effective in demonstrating the returns to the private sector that can accrue from seed production, processing and distribution as demonstrated by the crowding in of further investment particularly in vegetable seed. This was enhanced by the policy adjustments to licence PSCs to undertake foundation seed production and for Private Seed Inspectors to be trained up and licensed to undertake field inspections in support of an expanded programme of seed production. The promotion of production groups and cooperatives to bulk up supply was also an enabling factor of this sector. The lesson coming out of this is the need to adopt an integrated systems approach to improving the seed sector through support to private sector, empowering producers and streamlining the regulatory processes.
282. The continued support by the Government through facilitation of licensing companies to engage in foundation seed production and their support through development of a local cadre of field level seed inspectors will further support this into the future. As quality seed is a prerequisite input to improve food crop productivity it is an essential contribution to improving food security.
283. There are however concerns as to which farmers will engage in this development of seed production. There are signs of smaller farmers reducing their seed production volume, particularly of bulk cereal seeds. A longer engagement of the programme with these farmers to fully embed the technical skills needed for increase and more profitable seed crop culture would have been beneficial.
284. The sustainability of some interventions, particularly in support to farmers in improving and sustaining seed yield increases would have benefited from several more seasons of support. A valuable lessons out of this is the need to work for longer periods with farmer groups to fully imbed changes (3 to 5 seasons repetition) and to include a specific extension component in similar interventions in future, where new practices and techniques can be transferred to farmers while also linking to the needs of market outlets. To be truly effective this needs to be undertaken in a iterative back and forwards manner where farmers and purchasers are engaged in assessing the benefits and/or

negatives of new approaches.

285. The programme approach to increasing goat meat production, that supported introduction of exotic germplasm of higher productivity potential, was particularly suited to increasing production in more remote locations. The development of community managed breeder herds (also supplying germplasm to other Districts in Nepal outside of the programme area), combined with improved feeding strategies and training in husbandry, proved highly relevant to the needs of small holders in the programme area.
286. Interventions in forming clusters of dairy producers, linked to outlets in market towns and with access to improved communication infrastructure, also was highly relevant for those in the geographic catchment where this perishable commodity could be effectively marketed. Diversification into less perishable processed products look likely to expand this range. There are instances where these new openings are providing opportunities for entrepreneurial youth to return to the village to take up profitable dairying as an occupation.
287. During the course of programme implementation, significant changes in the political system of Nepal were implemented. A new constitution was adopted in 2015 which changed the governance of the nation to a federal system from a unitary system. Nepal now has seven States, each with its own legislature and Chief Minister, with each state having several local government units comprising rural and urban municipalities from reorganizing the pre-existing districts. These modifications in the political and administrative structure of the country while impacting on the local delivery mechanism with the disbandment of the District Agriculture Development and District Livestock Services (DADO/DLSO) Offices who were primarily responsible for the extension activities of the programme, did not create major disruptions to overall ISFP-KUBK implementation as the programme was firmly embedded in the Ministry of Agriculture and Livestock Development (MOALD) of the federal government. The loss of DADOs and DLSOs though has implications for future engagement at the local level and these district institutions will need strengthening to become essential partners if the results achieved are to sustain in the future.

I. Conclusions and recommendations

288. The ISFP-KUBK programme has contributed substantially to the Goal of "Promoting inclusive, competitive and sustainable agricultural growth within the target area". As borne out by the financial analysis – IRR 20%, BCR 1.7 and NPV of USD17.74 million. As such in overall terms the programme can be rated moderately satisfactory.
289. This was made up from significant achievements in crop and livestock productivity. Crops' productivity increased by 17.3% against a target of 15%, likewise for Livestock productivity increased by 47.7% against a target of 10%. The number of direct beneficiary households also exceeded target by nearly 2%.
290. Expansion of seed production, meat, milk production combined with (and resulting from) increases in farmer access to investment funds and markets, all contributed to economic growth.
291. The programme contributed to the seed policy changes enabling the licensing of private seed inspectors. By programme completion some 90 such inspectors were licensed facilitating the inspection of 3 065 MT of TL seed crops. A further policy change enabling licencing of PSCs to undertake foundation seed multiplication released NARC to concentrate on breeder seed production thus freeing up resources to concentrate on the foundation blocks of seed production also contributed substantially to growth in the sector.
292. The seed component exhibited signs of crowding in investment in the contracting of seed production in the programme area, thus the private sector companies will drive further development in partnership with interested farmers. The continued support by the Government through facilitation of licensing companies to engage in foundation seed production and their support though development of a local cadre of field level seed inspectors will further support this into the future. As quality seed is a perquisite input to improve food crop productivity it is an essential contribution to improving food security.
293. There are however concerns as to which farmers will engage in this development of seed production. There are signs of smaller farmers reducing their seed production volume, particularly of bulk cereal seeds. A longer engagement of the programme with these farmers to fully embed the technical skills needed for increase and more profitable seed crop culture would have been beneficial. This additional time of programme support would also have allowed more time to foster partnerships between producer cooperatives and private sector buyers to build an ongoing mutually beneficial partnership. In essence more cycles of engagement were needed to fully embed change. The programme came to completion before these relationships were mature and developed. This is an aspect that Government needs to look into and perhaps with the point noted above about developing the capacity of State MoLMACs down to municipal level, to support this into the future..
294. The need to address basic food security through increasing yields of basic cereals remains, and the programme approach of developing high quality seed as a basic input to the farming system needs to be more widely adopted.
295. In terms of livestock production the programme has had several significant achievements, most notably increasing value of production by 47% against the target of 10%. The innovations in livestock policy regarding establishment of community managed Goat Breeder Herds and Goat Multiplier Herds aligned with the programme introduction of exotic Boer Goat genetics was a major contributor to productivity enhancement.
296. Increasing goat meat production for more remote and less advantage communities and sectors of society also remains valid and worthy of further expansion beyond the programme area.
297. Interventions in forming clusters of dairy producers linked to outlets in market towns and with access to improved communication infrastructure also was highly relevant for those in the geographic catchment where this perishable commodity could be effectively marketed. Diversification into less perishable processed products look likely to expand this range. There are instances where these new openings are providing opportunities for entrepreneurial youth to return to the village to take up profitable dairying as an occupation.
298. The approach to development of dairy also remains appropriate though confined to locations close to significant market opportunities.
299. The LEID component added considerable complexity to the programme in terms of establishing and supporting farmer groups, their empowerment, linking to financial institutions and operation as savings and loans associations for their members. However the LEID activities were essential to support the programme in the technical production of seed, goat meat and milk and played a very important role

in enabling the programme expand and extend its activities to large numbers of beneficiaries, linking the production groups and cooperatives to the market system and ensuring the required capital lending through Small Farmer Agricultural Cooperatives Limited (SFACLs).

300. With 42 Multi Stakeholder Platforms (MSP) operational to promote market linkages instead of the target of 5, women's participation at 95% in Small Farmer Agricultural Cooperatives Limited and membership of over 38,000 compared to the target of 22,500 and 100% of savings achieved the LEID component found widespread acceptability amongst beneficiaries. The coalescence of producers into groups, and the use of MSPs for price negotiation and agreement all contributed to increased commercial engagement of the beneficiaries. The high level of women's participation helped both empowerment and addressed the increased feminisation of the agriculture sector. Aspects of capacity development however need further attention with further training in operation of cooperatives and in developing the nascent organisations to undertake a wider remit of services to their membership.
301. There were difficulties early in the programme implementation that significantly affected programme delivery and were raised at the time of the MTR. Government took action to address some of those issues and there was an increase in tempo of operations with replacement of leadership in the PMU.
302. Over estimation of costs in the design stage needs to be more accurately reflected in future design of similar programmes so that a more realistic budget estimation can be developed. Some consideration needs to be given to adopting a more flexible approach to utilisation of loan funds for capacity development of individuals, institutions and beneficiaries as the positive return on investment in these areas, as indicated by the Financial Analysis, fully justifies this approach. This would support the Government in achieving its overall aim of fostering economic development and supporting Food Security for the population. In particular utilisation of the services of organisations like FAO that was envisaged in programme design to assist in policy development, strategic technical assistance and independent review would be desirable. Likewise the results achieved by Heifer International (Nepal) fully justified the original concept of expanding their input to other programme districts. This is an area that would benefit from policy review for design of future programmes. If the status quo is maintained then this should be clearly signalled at design stage so that programme budgets are not over estimated.
303. The Government does need to give attention to building programme management capacity in its staff in and across-the-board enhancement of skills and abilities so that they can draw upon a cadre of trained officers who are capable to rapidly initiate programme activities immediately after programme inception. The Government acted decisively after the MTR raised issues, but it is a lesson for the future that choice and selection of programme implementation staff is critical to programme success. However, the demobilization of the DADOs/DLSOs who were primarily responsible for the extension activities of the programme did impact particularly on the implementation of farmer training, FFS implementation and wider extension delivery. This gives rise to concerns in the provision of advice and extension support to small farmers under the revised structures of Government. In practice these responsibilities were largely taken over by State Ministries of Land Management, Agriculture and Cooperatives (MoLMACs) which were not adequately prepared for these new responsibilities and needed, and continue to need, capacity development to handle the increased load. Issues of staffing and institutional capacity are constraints. This is an area requiring consideration by Government for future development of the sector in view of the Agricultural Sector Development Strategy and in line with the ongoing Federalization process.
304. The partial cancellation of funding post MTR could have perhaps instead been utilised to extend the programme time line to allow capacity development of the newer State level institutions and engage for further cycles of production with the programme beneficiaries to embed changes. A more nuanced review of the programme at the time, rather than focussing on the closure of the programme on time, would have looked at the three variables of project management i.e. Budget resources, Delivery and Time. By focussing solely on time and matching resources accordingly, an opportunity may have been missed to look at both quantitative and qualitative aspects of delivery.

305. Recommendations

306. Seed sub-sector

- - o Municipal and State Level government should be mobilized to maintain broker linkages that addresses the maturity level amongst the production groups and the private seed companies which needs continued support at least for 2-3 additional cropping season.
 - o The Programme was instrumental in enhancing the capacity of the private seed companies by supporting in physical infrastructures such as seed cleaning, grading, quality testing, packaging etc. Their enhanced capacity should be fully utilized in future for seed sector development through an agreed plan with the seed companies.
 - Vegetables and maize seeds are performing well in the hills, however there is need to devise a different extension mechanism for paddy and wheat seed production in the hills of Nepal. Government should look into the factors affecting farmers decision making on these issues and revise the approach accordingly
 - additional Private Seed Inspectors should be trained and licensed for quality assurance and linked with the Municipal governments to ensure quality of seeds produced for sale.
 - o The provision of quality TL seed is a foundation stone for food security, directly addressing the pillar of staple crop availability. The Government is advised to give some considerable thought to further engaging in developing this important sector taking on board the positive examples and lessons learned from the KUBK programme.

307. Livestock sub-sector

1.
 1. NARC should continue research on the appropriate blood level of Boer genetics in a famer managed goat-rearing system
 2. MOALD should enact a Goat Breeding Policy once NARC provides final recommendation on the blood level of the Boer genetics.
 3. the Community Goat Breeding Herd approach should be expanded in other parts of the country with adequate technical backstopping for quality assurance from the national research system.
 4. A cluster approach for dairy development focussing young entrepreneurs to engage into clean agriculture should be implemented.
 5. As seed production, increased production of meat, milk and milk products is an essential component of food security which combined with the training on utilisation and the role protein adequacy plays in addressing child stunting, it can contribute to improved nutrition for the population. Replication of this programme's successes and lessons learned for other similar areas in the country should be undertaken.

308. Cooperative development

1.
 1.
 1. There have been significant level of investment from the Programme promoted SFACLs in agriculture sector. It

has also ensured access to finance services to the remote rural areas of Nepal. Continued promotion of this model by expansion to other parts of the country should be considered.

309. ISFP-KUBK similar approaches should have a specific extension and behaviour change component included in its methodology rather than relying on introducing farmers to market opportunities which, while necessary, are seldom sufficient in and of themselves to ensure engagement of the most disadvantaged.
310. The Government should look to build capacity within State MoLMAC to take up the roles of District Agriculture Development Officers (DADO) and District Livestock Development Officers (DLSO) and provide extension support to the farming community.
311. The Government should build capacity within State MoLMAC to continue support to the programme created and supported SFACs to ensure their continued development, but also to look to expand this model to other suitable communities in the country.
312. Where nutrition output targets are included and desired by the development partners, then there should be a dedicated component included in programme implementation to specifically address the nutrition messaging and behaviour change communication.

Footnotes

[1] Gulmi, Arghakhanchi, Salyan, Pyuthan, Rolpa, Rukum (East) and Rukum (West). Initially, Rukum was one district, but was split into east and west following the restructuring of the country with the new constitution adopted in 2015.

[2] six districts Arghakhanchi, Gulmi, Pyuthan, Rolpa, Rukum (East), Rukum (West) and Salyan

[3] A new name for Small Farmer Development Bank (SFDB).

[4] Discount rate is based on Nepal's interest rate on debenture.

[5] Mr. David Doolan, Team Leader, Programme Management and Institutions Specialist; Mr. Dilli Raj Joshi, M&E and KM Specialist; Dr. Nara Hari Dhakal, Economic and Financial Analysis Specialist; and Mr. Bashu Aryal, CPO, IFAD.

[6] Themes discussed in the stakeholders' workshop and list of persons participated are given in Appendices 9 and 8 respectively

[7] Gulmi, Arghakhanchi, Salyan, Pyuthan, Rolpa, Rukum (East) and Rukum (West). Initially, Rukum was one district, but was split into east and west following the restructuring of the country with the new constitution adopted in 2015.

[8] About 486 500 sets of Napier Cultivars and berseem planted in 14.59 ha. and 20 ha. of land, respectively. A total of 187 000 fodder saplings and 30 tons of teosinte seed distributed. A total of 10,768 MT of fodder dry matter produced which was sufficient for 4 538 dairy animals per year. Azolla was demonstrated in 17 dairy clusters.

[9] These includes khuwa making machine, cream separators, Ice cream machine, pasteurizers, and chhurpi making machine.

[10] SKBBL received subsidized loan of NPR. 800 million (approx. USD 8.0 millions) from the programme to provide wholesale loans to its affiliated SFACs and it has lent 100 % of subsidized loan received.

[11] Government institutions related to seed, milk and goat value chains, namely National Seed Board (NSB), Seed Quality Control Center (SQCC), Regional Seed Testing Laboratories (RSTLs), District Agricultural Development Offices (DADOs) and District Livestock Service Offices (DLSOs), National Livestock Breeding Centre (NLBC), NARC experimental stations were successfully collaborated for effective and efficient delivery of the Programme activities. The KUBK-ISFP financing extended to improve the physical and human resources capacity of these institutions. Additionally, collaboration with the member institutions of District Agriculture Development Committee (DADC) and District Development Committee (DDC) had made for the smooth implementation of the Programme activities and monitoring field based Programme activities until 2016/17[4]. Onward, 2016/2017, such services were facilitated by the District Coordination Committee (DCC).

[12] Discount rate is based on India's long-term bond rate

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 1: Project logical framework

Mission Dates: 12 - 26 January 2020
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Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram)

Logical Framework

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
Outreach	1.b Estimated corresponding total number of households members							GRIPS			
	Household members			750 000	588 970	1 013 805	135.2				
	1.a Corresponding number of households reached							RIMS	Annual		
	Women-headed households										
	Non-women-headed households										
	Households			150 000	117 894	202 761	135.2				
	1 Persons receiving services promoted or supported by the project										
	Females				517 041	517 041					
	Males				496 764	496 764					
	Total number of persons receiving services				1 013 805	1 013 805					
Project Goal Increased, competitive, sustainable and inclusive rural growth	Value of agricultural and livestock productions increase by 15% and 10% respectively							MTR and PCR Surveys RIMS		PMO	Political stability and security; Major shocks or crises which could weaken programme effects do not occur
	% of increase of agricultural production			15	17.32	17.32	115.5				
	% of increase of livestock production			10	47.74	47.74	477.4				
	At least 90,000 families increase household food security							MTR and PCR Surveys RIMS		PMO	
	Households		55 600	90 000	85 093	85 093	94.5				

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
	At least 20% HHs show improvement of more than 10% in household assets ownership index							MTR and PCR Surveys RIMS		PMO	
	Households			20	22	22	110				
	Reduction of at least 20% in prevalence of child malnutrition							MTR and PCR Surveys RIMS		PMO	
	% reduction child malnutrition			20	5.69	18.1	90.5				
Development Objective Improved household incomes through sustainable, market-driven agricultural productivity improvements	Productivity increases in goat, crops and milk							National and district statistics, Annual Outcome surveys period surveys RIMS		PMO & M&E Unit	Price volatilities do not reduce profitability; Households respond to opportunities for improved livelihoods and access to market and credit
	% of productivity goat			25	2.46	34.46	137.8				
	% of productivity crops			15	14.21	14.21	94.7				
	% of productivity milk			50	40.2	40.2	80.4				
	At least 75% of supported production groups regularly collecting money for O&M of infrastructure, machinery and equipment							National and district statistics, Annual Outcome surveys period surveys RIMS		PMO & M&E Unit	
	% of supported production groups			70	74	74	105.7				
	Private purchase contracts established with at least 50% of supported seeds and 35% of dairy production groups							National and district statistics, Annual Outcome surveys period surveys RIMS		PMO & M&E Unit	
	% seeds		70	50		95	190				
	% milk		25	35	5	85	242.9				

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
Outcome Increased Production of TL seeds and marketed	At least 100,000 ha are sown with TL seeds of cereals and vegetables							Periodic reports; trimester and annual reports		PMO M&E unit	Target groups acknowledge the importance of TL seeds production and continued policy support of the Government and role of private sector
	Hectares of land		36 040	100 000	100 882	237 949	237.9				
Output NARC & private seed producers produce required foundation seeds	Production of foundation seeds of cereals and vegetables seeds										Beneficiaries respond to market opportunities and improve the quality of production
	Ton of cereals		4.15	171	303.5	920.69	538.4				
	Ton of vegetables		5.13	5	1.3	14.21	284.2				
Output Quality control is ensured by SQCC	Quality of at least 80% of FS & TL seeds ensured										Routine checks on quality of TL seeds
	% quality ensured		90	80	91.6	91.6	114.5				
Output Participation by HH and companies in seed production	At least 9,000 farmers in 360 groups participate in seed production and 5 seeds companies establish buy-back arrangements										Continued policy support and availability of seeds and positive market signals
	No. of farmers			9 000							
	Households		10 936			13 475					
	Agricultural/Livestock production group formed/strengthened							RIMS	Annual		
	No. of groups			720		369	51.2				
	People in agricultural/livestock production groups							RIMS	Annual		
	Males					5 701					
	Females					7 774					
	1.1.4 Persons trained in production practices and/or technologies							RIMS	Annual	PMU	
	Men trained in crop			7 500	411	9 151	122				
	Women trained in crop			7 500	990	18 606	248.1				

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
	Total persons trained in crop				1 401	27 757		RIMS	Annual	PMU	
	2.1.6 Market, processing or storage facilities constructed or rehabilitated										
	Total number of facilities				0	8					
	Market facilities constructed/rehabilitated				0	5					
	Processing facilities constructed/rehabilitated				0	3					
Outcome Improved household incomes through sustainable, market-driven agricultural productivity improvement	At least 60% of dairy hh and 25% of goat hh selling produce to markets							Periodic reports; trimester and annual reports		PMO M&E unit	Target groups acknowledge the importance of TL seeds production and continued policy support of the Government and role of private sector
	% dairy HH			60	29.6	88	146.7				
	% goat HH			25	-22.84	59	236				
Output Breed improvement	At least 80% of participating HH have improved animals through breed improvement										Continued support from the government
	Households			80	47.55	81.8	102.3				
Output Forage production by dairy groups	At least 60% of dairy HH produce forage										Continued support from the government
	Households			60	0	83	138.3				
Output Stall feeding of animals	At least 50% of dairy and goat groups adopt stall-feeding										Producers response to stall-feeding and market opportunities
	% of groups			50		67.09	134.2				
Output Vaccination against zoonotic diseases	At least 80% dairy animal and goats covered by routine vaccinations										Producers respond to market signals and adopt sustainable practices
	% of animals			80	22.85	102.5	128.1				
	No. of dairy		49 000		53 264	116 039					
	No. of goats		80 000		58 043	208 833					

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
	Agricultural/Livestock production group formed/strengthened							RIMS	Annual		
	No. of groups					868					
	People in agricultural/livestock production groups							RIMS	Annual		
	Males				531	5 729					
	Females				407	21 931					
	Households receiving animals from distribution/restocking							RIMS	Annual		
	Households				422	8 463					
	People accessing facilitated advisory services							RIMS	Annual		
	Males					2 236					
	Females					3 965					
	Staff of service providers trained							RIMS	Annual		
	Males					1 400					
	Females					347					
	People trained in community management topics							RIMS	Annual	PMU	
	Men trained in other					8 696					
	Women trained in other					30 045					
	Persons trained in other					38 741					
	1.1.4 Persons trained in production practices and/or technologies							RIMS	Annual	PMU	
	Men trained in livestock			7 200	1 032	6 875	95.5				
	Women trained in livestock			4 800	1 546	22 347	465.6				
	Total persons trained in livestock				2 578	29 222					

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
Outcome Improved household incomes through rural finance interventions	At least 65 SFCALs with satisfactory financial governance, regular savings by 95% of members, cumulative repayment of loans more than 95%, annual general body meeting held and regular election processes used							Periodic reports; trimester and annual reports		PMO M&E unit	Institutional framework and financial incentives make it possible for SFCALs to access capital from financing institutions
	No. of SFCALs		30	65	9	75	115.4				
Output Local institutions	At least 80% of participating local institutions received training on good governance										Local institutions respond to project's initiatives
	% participating local institutions			80	58.3	58.3	72.9				
	No. of VDCs		182			182					
Output Increasing outreach of micro-finance	At least 30 SFCALs covered										Beneficiaries respond to project initiatives
	No. of SFCALs		75	30		75	250				
	Households		14 213			40 515					
	People in savings and credit groups formed/strengthened							RIMS	Annual		
	Males				1 012	2 089					
	Females				7 761	38 533					
	Savings/credit groups formed/strengthened							RIMS	Annual		
	No. of savings and credit groups				345	5 499					
	Value of gross loan portfolio (USD'000)							RIMS	Annual		
	USD'000 value of gross loan portfolio				8 032.08	16 035.73					
	Value of voluntary savings mobilized (in USD'000)							RIMS	Annual		
	USD' 000 currency value				1 468.07	2 919.32					
	2.1.2 Persons trained in income-generating activities or business management							RIMS	Annual	PMU	

Results Hierarchy	Indicators							Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Annual Result (2019)	Cumulative Result (2019)	Cumulative Result % (2019)	Source	Frequency	Responsibility	
	Persons trained in IGAs or BM (total)				0	10 457					
	1.1.7 Persons in rural areas trained in financial literacy and/or use of financial products and services							RIMS	Annual	PMU	
	Females				0	12 797					
	Males				0	1 877					
	Persons in rural areas trained in FL and/or use of FProd and Services (total)				0	14 674					
	2.1.1 Rural enterprises accessing business development services							RIMS	Annual	PMU	
	Rural enterprises				0	3 332					
	1.1.5 Persons in rural areas accessing financial services							RIMS	Annual	PMU	
	Women in rural areas accessing financial services - savings				11 936	38 533					
	Men in rural areas accessing financial services - savings				1 199	2 089					
	Men in rural areas accessing financial services - credit				634	834					
	Women in rural areas accessing financial services - credit				12 375	20 496					
	Total persons accessing financial services - savings				13 135	40 622					
	Total persons accessing financial services - credit				13 009	21 330					

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 2: Summary of amendments to the financing agreement

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
DSF Grant ID 1000004341

Asia and the Pacific Division
Programme Management Department

This document will be publicly disclosed unless there is written dissent on its disclosure by the Borrower at the time of this document submission to IFAD or no later than the project closing date.

Appendix 2: Summary of amendments to the financing agreement

Year	Major changes effected
2014	A restated Financing Agreement (FA) was signed by the government (12 May 2014) which topped up a supplementary loan of SDR 3.27 (approx. USD 5.00) million to the initial IFAD financing.
2017	<p>A partial cancellation was signed on 21 November with effect of:</p> <p>Reduced loan to SDR 9.29 million and DSF grant to SDR 9.33 million, amendments in Schedule 1 and 2 from SDR 12.85 million each;</p> <p>Line of credit introduced through a separate category in the allocation table and provided ground for signing a service level agreement (SLA) between Ministry of Finance (MOF) and Sana Kisan Laghubitta Bittiya Sanstha Limited (formerly Small Farmer Development Bank).</p> <p>Increased the total direct beneficiary outreach target to 90 000 from 75 000 households</p>

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 3: Actual project costs

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
DSF Grant ID 1000004341

Asia and the Pacific Division
Programme Management Department

This document will be publicly disclosed unless there is written dissent on its disclosure by the Borrower at the time of this document submission to IFAD or no later than the project closing date.

Appendix 3: Actual project costs

Actual expenses by financiers (thousand USD)

Financers	Total	% of total
Government of Nepal	3,874.58	8.6
IFAD Loan	14,204.24	31.5
IFAD Grant	12,026.56	26.7
Supplementary	4,528.00	10.0
Heifers	2,516.46	5.6
Beneficiaries contribution	7,958.67	17.6
	45,108.51	100.0

Actual cost by component (thousand USD)

Programme Component	Total	% of total
Support to Expansion of Formal Seed Sector	12,330.02	27.3
Smallholder Livestock Commercialization	11,725.52	26.0
Local Institutional and Entrepreneurship Development	14,115.28	31.3
Programme Coordination and Management	6,937.69	15.4
Total	45,108.51	100.0

Actual cost by category (thousand USD)

Programme cost categories	Total	% of total
Grants & Subsidies	16,666.73	35.4
Consultancies	2,045.37	4.3
Training I	4,985.65	10.6
Training II	217.83	0.5
Goods, Services & Inputs	10,203.52	21.7

Credit Guarantee Funds	2,618.70	5.6
Operating Costs	5,842.71	12.4
Credit Guarantee Funds-Supplementary Loan	4,528.00	9.6
Total	47,108.51	100.0

Expenses by Category

Category code	Category description	Category further description	Allocated	Disbursed	Disbursed %	Available balance
	Grants					
074964	Designated account		-	106,996.46	-	(106,996.46)
122061	Funds	Grants and subsidies	1,880,000.00	1,884,271.38	100.23	(4,271.38)
122062	Technical Assistance	Consultancies	902,000.00	381,863.25	42.34	520,136.75
122063	Studies, surveys, training and workshop	Training I	779,000.00	1,086,761.33	139.51	(307,761.33)
122064	Goods and services (including vehicles)	Goods, services and inputs	3,845,000.00	2,959,902.88	76.98	885,097.12
122065	Operating costs		1,526,000.00	1,332,500.30	87.32	193,499.70
200019	Training	Training II	400,000.00	249,211.46	62.30	150,788.54
	Total		9,332,000.00	8,001,507.06	85.74	1,330,492.94
	Loans					
074964	Designated account		-	135,941.48	-	(135,941.48)

Category code	Category description	Category further description	Allocated	Disbursed	Disbursed %	Available balance
122061	Funds	Grants and subsidies	1,880,000.00	1,778,157.17	94.58	101,842.83
122062	Technical Assistance	Consultancies	402,000.00	381,863.28	94.99	20,136.72
122063	Studies, surveys, training and workshop	Training I	1,179,000.00	1,640,606.94	139.15	(461,606.94)
122064	Goods and services (including vehicles)	Goods, services and inputs	2,135,000.00	2,002,759.60	93.81	132,240.40
122065	Operating costs		1,526,000.00	1,378,748.17	90.35	147,251.83
200019	Training	Training II	2,170,000.00	1,973,630.20	90.95	196,369.80
	Total		9,292,000.00	9,291,706.84	100.00	293.16
	Grants + Loans					
074964	Designated account		-	242,937.94	-	(242,937.94)
122061	Funds	Grants and subsidies	3,760,000.00	3,662,428.55	97.41	97,571.45
122062	Technical Assistance	Consultancies	1,304,000.00	763,726.53	58.57	540,273.47

Category code	Category description	Category further description	Allocated	Disbursed	Disbursed %	Available balance
122063	Studies, surveys, training and workshop	Training I	1,958,000.00	2,727,368.27	139.29	(769,368.27)
122064	Goods and services (including vehicles)	Goods, services and inputs	5,980,000.00	4,962,662.48	82.99	1,017,337.52
122065	Operating costs		3,052,000.00	2,711,248.47	88.84	340,751.53
200019	Training	Training II	2,570,000.00	2,222,841.66	86.49	347,158.34
	Total		18,624,000.00	17,293,213.90	92.85	1,330,786.10

Project Expenditure by Component and Year

S.N.	Component	Unit	2069/70	2070/71	2071/72	2072/73	2073/74	2074/75	2075/76	2076/77	Total
Grant											
1	Support to Expansion of Formal Seed Sector	USD	7,264.76	258,923.43	324,626.36	626,081.25	1,022,373.59	1,007,371.41	260,177.46	24,791.74	3,531,610.00
2	Smallholder Livestock Commercialization	USD	2,684.14	12,979.97	219,223.82	761,095.06	766,742.22	1,000,151.95	228,676.12	44,506.72	3,036,060.00
3	Local Institutional and Entrepreneurship Development	USD	-	170,863.41	338,757.12	450,897.12	360,136.57	618,035.31	553,920.14	96,540.33	2,589,150.00
4	Programme Coordination and Management	USD	77,332.74	271,360.51	146,449.89	361,344.13	741,212.49	576,452.62	418,318.21	277,269.42	2,869,740.00
	Total	USD	87,281.64	714,127.32	1,029,057.19	2,199,417.56	2,890,464.87	3,202,011.29	1,461,091.93	443,108.21	12,026,560.00
Loan											
1	Support to Expansion of Formal Seed Sector	USD	7,264.76	258,923.43	324,626.36	626,081.25	1,022,373.39	867,674.27	256,178.41	19,228.12	3,382,350.00
2	Smallholder Livestock Commercialization	USD	2,684.14	12,979.97	219,223.82	761,095.06	951,873.96	744,845.46	162,112.16	27,795.43	2,882,610.00
3	Local Institutional and Entrepreneurship Development	USD	-	170,863.41	338,757.12	450,897.12	360,136.57	5,565,167.05	2,884,095.53	36,683.20	9,806,600.00
4	Programme Coordination and Management	USD	77,332.74	271,360.51	146,449.89	361,344.13	741,212.49	413,152.69	649,827.55	-	2,660,680.00
	Total	USD	87,281.64	714,127.32	1,029,057.19	2,199,417.56	3,075,596.41	7,590,839.47	3,952,213.66	83,706.75	18,732,240.00
Government											
1	Support to Expansion of Formal Seed Sector	USD	1,028.54	65,388.13	92,520.01	156,775.64	283,087.42	362,242.32	109,666.28	7,900.50	1,078,608.83
2	Smallholder Livestock	USD	109.06	3,716.91	62,479.80	147,331.09	128,823.21	326,140.02	78,798.79	12,841.84	760,240.73

S.N.	Component	Unit	2069/70	2070/71	2071/72	2072/73	2073/74	2074/75	2075/76	2076/77	Total
Commercialization											
3	Local Institutional and Entrepreneurship Development	USD	-	29,965.66	61,582.81	98,244.46	71,867.64	171,180.31	171,952.32	23,662.30	628,455.51
4	Programme Coordination and Management	USD	24,864.30	90,264.09	41,738.89	137,410.20	260,579.12	356,950.95	359,557.19	135,909.72	1,407,274.46
	Total	USD	26,001.90	189,334.79	258,321.51	539,761.39	744,357.40	1,216,513.60	719,974.58	180,314.36	3,874,579.52
Heifers											
1	Support to Expansion of Formal Seed Sector	USD	-	-	-	-	-	-	-	-	-
2	Smallholder Livestock Commercialization	USD	-	-	435,932.63	874,785.49	586,244.68	392,531.61	226,969.29	-	2,516,463.71
3	Local Institutional and Entrepreneurship Development	USD	-	-	-	-	-	-	-	-	-
4	Programme Coordination and Management	USD	-	-	-	-	-	-	-	-	-
	Total	USD	-	-	435,932.63	874,785.49	586,244.68	392,531.61	226,969.29	-	2,516,463.71
Beneficiaries											
1	Support to Expansion of Formal Seed Sector	USD	-	-	86,740.76	255,104.79	614,854.91	2,388,238.40	990,519.35	1,994.28	4,337,452.49
2	Smallholder Livestock Commercialization	USD	-	-	4,161.83	109,417.90	1,049,737.74	1,058,978.23	307,857.90		2,530,153.61
3	Local Institutional and Entrepreneurship Development	USD	-	-	-	552,924.58	538,148.94		-		1,091,073.52
4	Programme Coordination and Management	USD	-	-	-	-	-		-		-

S.N.	Component	Unit	2069/70	2070/71	2071/72	2072/73	2073/74	2074/75	2075/76	2076/77	Total
	Total	USD	-	-	90,902.60	917,447.27	2,202,741.59	3,447,216.62	1,298,377.26	1,994.28	7,958,679.62
	Total										
1	Support to Expansion of Formal Seed Sector	USD	15,558.06	583,234.99	828,513.50	1,664,042.92	2,942,689.31	4,625,526.40	1,616,541.50	53,914.63	12,330,021.32
2	Smallholder Livestock Commercialization	USD	5,477.34	29,676.85	941,021.89	2,653,724.61	3,483,421.82	3,522,647.27	1,004,414.27	85,144.00	11,725,528.05
3	Local Institutional and Entrepreneurship Development	USD	-	371,692.48	739,097.05	1,552,963.28	1,330,289.72	6,354,382.67	3,609,967.99	156,885.83	14,115,279.03
4	Programme Coordination and Management	USD	179,529.78	632,985.11	334,638.66	860,098.46	1,743,004.10	1,346,556.26	1,427,702.95	413,179.13	6,937,694.46
	Total	USD	200,565.18	1,617,589.43	2,843,271.11	6,730,829.27	9,499,404.95	15,849,112.60	7,658,626.72	709,123.60	45,108,522.85

Project Expenditure by Category and Year

S.N.	Component	Unit	2069/70	2070/71	2071/72	2072/73	2073/74	2074/75	2075/76	2076/77	Total
Grant											
1	Grants & Subsidies	USD	4,205.25	111,670.36	151,400.19	400,793.86	908,751.06	1,088,960.91	165,958.11	946.12	2,832,685.86
2	Consultancies	USD	-	157,689.30	296,630.65	113,128.06	28,856.97	10,414.00	-	-	606,718.98
3	Training I	USD	8,554.31	76,550.82	189,497.84	653,341.60	275,300.91	178,954.40	168,865.32	46,353.07	1,597,418.28
4	Training II	USD	-	-	-	-	-	205,589.18	10,241.20	2,002.00	217,832.38
5	Goods, Services & Inputs	USD	39,740.74	252,082.49	274,372.51	665,046.21	1,148,123.12	1,281,134.12	734,437.34	119,692.86	4,514,629.39
6	Credit Guarantee Funds	USD	-	-	-	-	-	-	-	-	-
7	Operating Costs	USD	34,781.34	116,134.35	117,155.99	367,107.83	529,432.80	436,958.69	381,590.36	274,114.15	2,257,275.52
	Total	USD	87,281.64	714,127.32	1,029,057.18	2,199,417.56	2,890,464.87	3,202,011.29	1,461,092.32	443,108.21	12,026,560.40
Loan											
1	Grants & Subsidies	USD	4,205.25	111,670.36	151,400.19	400,793.86	908,500.27	1,207,431.64	158,288.81	946.12	2,943,236.50
2	Consultancies	USD	-	157,689.30	296,630.65	113,128.06	28,849.02	11,546.97	-	-	607,844.00
3	Training I	USD	8,554.31	76,550.82	189,497.84	653,341.60	795,063.17	558,706.82	241,592.52	66,218.68	2,589,525.75
4	Training II	USD	-	-	-	-	-	-	-	-	-
5	Goods, Services & Inputs	USD	39,740.74	252,082.49	274,372.51	665,046.21	813,897.27	782,575.54	569,677.29	16,541.96	3,413,934.00
6	Credit Guarantee Funds	USD	-	-	-	-	-	-	2,618,698.81	-	2,618,698.81
7	Operating Costs	USD	34,781.34	116,134.35	117,155.99	367,107.83	529,286.69	502,578.51	363,956.22	-	2,031,000.94
	Total	USD	87,281.64	714,127.32	1,029,057.18	2,199,417.56	3,075,596.41	3,062,839.47	3,952,213.65	83,706.75	14,204,240.00

S.N.	Component	Unit	2069/70	2070/71	2071/72	2072/73	2073/74	2074/75	2075/76	2076/77	Total
Government											
1	Grants & Subsidies	USD	118.43	24,419.22	28,006.12	80,792.01	183,331.75	404,188.03	69,682.01	418.06	790,955.63
2	Consultancies	USD	-	31,141.08	51,279.67	22,780.48	5,940.11	1,947.00	-	-	113,088.34
3	Training I	USD	749.54	13,648.20	30,324.12	130,253.93	108,377.18	130,708.13	71,542.73	19,994.27	505,598.10
4	Training II	USD	-	-	-	-	-	-	-	-	-
5	Goods, Services & Inputs	USD	13,615.79	66,926.00	81,861.86	185,173.04	272,307.52	317,106.13	192,094.97	24,197.15	1,153,282.46
6	Credit Guarantee Funds	USD	-	-	-	-	-	-	-	-	-
7	Operating Costs	USD	11,518.15	53,200.35	66,849.74	120,761.93	174,400.82	362,564.31	386,654.86	135,704.88	1,311,655.05
	Total	USD	26,001.91	189,334.85	258,321.51	539,761.39	744,357.40	1,216,513.60	719,974.58	180,314.36	3,874,579.59
Heifers											
1	Grants & Subsidies	USD	-	-	55,337.17	85,850.05	-	-	-	-	141,187.22
2	Consultancies	USD	-	-	23,350.41	-	74,863.89	392,531.61	226,969.29	-	717,715.21
3	Training I	USD	-	-	28,597.54	146,638.58	117,874.20	-	-	-	293,110.32
4	Training II	USD	-	-	-	-	-	-	-	-	-
5	Goods, Services & Inputs	USD	-	-	328,647.52	399,518.84	393,506.59	-	-	-	1,121,672.95
6	Credit Guarantee Funds	USD	-	-	-	-	-	-	-	-	-
7	Operating Costs	USD	-	-	-	242,778.03	-	-	-	-	242,778.03
	Total	USD	-	-	435,932.63	874,785.50	586,244.68	392,531.61	226,969.29	-	2,516,463.72
Beneficiaries											
1	Grants & Subsidies	USD	-	-	90,902.60	917,447.27	2,202,741.59	3,447,216.62	1,298,377.26	1,994.28	7,958,679.62

S.N.	Component	Unit	2069/70	2070/71	2071/72	2072/73	2073/74	2074/75	2075/76	2076/77	Total
2	Consultancies	USD	-	-	-	-	-	-	-	-	-
3	Training I	USD	-	-	-	-	-	-	-	-	-
4	Training II	USD	-	-	-	-	-	-	-	-	-
5	Goods, Services & Inputs	USD	-	-	-	-	-	-	-	-	-
6	Credit Guarantee Funds	USD	-	-	-	-	-	-	-	-	-
7	Operating Costs	USD	-	-	-	-	-	-	-	-	-
	Total	USD	-	-	90,902.60	917,447.27	2,202,741.59	3,447,216.62	1,298,377.26	1,994.28	7,958,679.62
	Total										
1	Grants & Subsidies	USD	8,528.93	247,759.93	477,046.27	1,885,677.06	4,203,324.67	6,147,797.20	1,692,306.18	4,304.58	14,666,744.82
2	Consultancies	USD	-	346,519.69	667,891.37	249,036.60	138,509.99	416,439.58	226,969.29	-	2,045,366.53
3	Training I	USD	17,858.16	166,749.83	437,917.34	1,583,575.72	1,296,615.46	868,369.35	482,000.57	132,566.02	4,985,652.45
4	Training II	USD	-	-	-	-	-	205,589.18	10,241.20	2,002.00	217,832.38
5	Goods, Services & Inputs	USD	93,097.27	571,090.98	959,254.39	1,914,784.30	2,627,834.51	2,380,815.78	1,496,209.60	160,431.97	10,203,518.81
6	Credit Guarantee Funds	USD	-	-	-	-	-	-	2,618,698.81	-	2,618,698.81
7	Operating Costs	USD	81,080.84	285,469.05	301,161.73	1,097,755.61	1,233,120.31	1,302,101.51	1,132,201.44	409,819.03	5,842,709.53
1A	Credit Guarantee Funds-Supplementary Loan	USD	-	-	-	-	-	4,528,000.00		-	4,528,000.00
	Total	USD	200,565.20	1,617,589.49	2,843,271.10	6,730,829.29	9,499,404.95	15,849,112.60	7,658,627.10	709,123.60	45,108,523.33

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 4: Project internal rate of return (detailed analysis)

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
DSF Grant ID 1000004341

Asia and the Pacific Division
Programme Management Department

This document will be publicly disclosed unless there is written dissent on its disclosure by the Borrower at the time of this document submission to IFAD or no later than the project closing date.

Appendix 4: Project internal rate of return (detailed analysis)

INTRODUCTION

The Kisankalagi Unnat Biou-Bijan Karyakram (KUBK) / Improved Seed for Farmers Programme (ISFP) aimed at achieving sustainable productivity improvements in hilly areas of Nepal through the expansion of production of improved seeds, improving productivity of goats and milk, and creating demand for seeds and livestock products. To this end, the Programme supported various activities under three technical components namely (i) Support to Expansion of Formal Seed Sector, (ii) smallholder agricultural commercialization and (iii) local institutional and entrepreneurial development.

The first component targeted the expansion of improved seed production in the Programme districts that would meet agro-ecological requirements of the Hills zone as well as a variety of preferences of farmers by supporting seed producing farm groups, private seed companies and relevant public seed agencies working in the seed supply chain. Activities under second component included increased dairy and goat productivity through improved animal nutrition and management, improved genetics and market linkage. Finally, the third component focused on strengthening the demand for improved seeds and livestock by expanding access to financial and non-financial services.

The programme is expected to generate substantial net incremental benefits that would derive from: (i) improved income for seed producing farm groups and private seed companies (PSCs); (ii) improved productivity of cereal and vegetable crops on about 100,000 hectares of agricultural land located both within and outside the Programme districts; and (iii) improved dairy and goat productivity and marketing while creating foundation for sustainable access to financial services to beneficiary households.

Further, the programme interventions generated a number of non-quantifiable benefits that could not be estimated in this analysis. These benefits would include: capacity-building; extension; value chain competitiveness; increased market information; increased number of market outlets; improved quality of meat and milk products; reduced production losses for, and improved entrepreneurial skills of, meat and milk entrepreneurs; and improved outreach of financial service providers in the program districts through 75 new Small Farmers Agricultural Cooperatives Limited (SFACL) developed under the programme and 9 existing SFACLs promoted by and linked to Small Farmer Development Bank (Sana Kisan Laghu Bittiya Bitta Sanstha) Ltd¹. The Programme also contributed to environmental protection and conservation of water and land resources through agricultural intensification based on improved seed use, introduction of water saving techniques, and crop varieties, and improved management of forest resources.

An analysis was undertaken to assess the financial impact of the Programme on its beneficiaries supported for seed production, smallholder livestock (cattle/buffalo and goat) and loan clients of SFACLs receiving loans credit guarantee fund – supplementary loan to programme beneficiaries as well as economic impact of the Programme on the whole society. Returns to Programme investments through seed production, commercial livestock promotion and access to finance were estimated through seed producing farmer groups, private seed companies (PSCs), cattle/livestock growers, goat, programmes supported agro-enterprises (small scale dairy, meat/butcherries, agro/para vet and SFCLs assisted income generating activities / micro-enterprises. The analysis examined benefits to seed producing households contributing different cropping areas for seed production, livestock and income generating activities/microenterprises. Benefits from adopting improved seeds on the Programme and non-programme areas were estimated separately by using production models for representative crops. Benefits to dairy and goat producers are estimated using cattle/buffalo milk and goat meat production models for traditional and commercially oriented buffalo and goat productions. Benefits from improved access to financial services were embedded into all abovementioned models on programme supported farmers in seed, milk and meat value chain while considering the incremental income generated by smallholders' shareholders of the SFACLs, representative credit financed enterprise model were prepared and analyzed to assess the incremental benefits of such support.

¹ Sana Kisan Laghu Bittiya Bitta Sanstha is a wholesale microfinance service providers' for the SFACLs.

A. FINANCIAL ANALYSIS

A1. Methodology

The financial analysis examines the viability of the Programme on the basis of detailed analysis of illustrative models developed for seed producing farm groups and cooperatives, PSCs, areas adopting improved seeds, farmers adopting improved buffalos and goats, and SFACs shareholders receiving incremental loan services to start income generating activities / microenterprises. Field level data for computing production budgets was collected by programme team, field survey and from secondary sources and represents seeds, crops, cattle/buffalo, goat production specificities and income generating activities / micro-enterprises in the Hills zone. Data on productivity, prices, technology and marketing were obtained from both primary and secondary sources including data from the Ministry of Agriculture and Livestock Development, and monitoring and evaluation data of various ongoing projects and programmes.²

Incremental benefits are estimated by comparison of benefits without programme (WoP) and with programme (WP) scenarios for illustrative models. The overall programme impact is calculated by aggregating benefits to all models. The programme benefits are assessed for a period of 25 years taking 2019 as a base year and using opportunity cost of capital at 10 percent³.

Financial prices of locally traded outputs and inputs are converted into economic prices by deducting direct agricultural subsidies and taxes. Economic prices for imported agricultural inputs and outputs are calculated at their border parity prices. Financial cost of unskilled labour is converted into economic one using a shadow wage rate conversion factor (SWRCF) of 0.75⁴.

Sensitivity analysis was conducted to test the robustness of economic and financial returns of Programme investments for various risks variables including: (i) a 10 and 20 percent increase in the Programme costs, and (ii) a 10 and 20 percent decline in projected benefits as done during the programme appraisal.

Key Assumptions

The analysis uses varieties of cereal and vegetable seeds that are currently grown by local seed producers mainly on a supply driven basis. The programme was designed to produce the cereal seeds of wheat *Gautam*, maize *Arun*, and rice *Fine*; and vegetable seed production models based on varieties as cauliflower *Kathmandu*, carrot *New Kuroda*, radish *Pyuthane*, pea *Sikkime*, tomato *NCL*, capsicum *CW*, chilli *Jwala*, and onion *Red Creole*. Varieties of seeds produced under the Programme support differ by very approach of programme implementation based on participatory variety selection approach that considered farmers' preferences, and agro-climatic requirements of the Hills zone.

Findings of the study on Seed Replacement Rates (SRR)⁵ are used to integrate the SRR on the commodity promoted under the programme (Table below) against of designed assumption of 25% for self-pollinated crops and 33% percent for cross-pollinated crops.

There exist evidence that the programme has contributed to some quality improvements in improved seeds, crops, milk and goat meat beyond the programme area and output prices are conservatively assumed to remain constant during the estimated period.

² IFAD financed the High Value Agriculture Project (HVAP), the USAID-financed Nepal Economic Agriculture and Trade project (NEAT); World Bank financed the Project for Food and Nutritional Security Enhancement Project, Livestock Sector Innovation Project, etc.

³ It has been adopted from the economic analysis prepared for recent projects World Bank, AsDB, and other donors

⁴ Recent projects of the AsDB and World Bank use SWRCF in the ranges of 0.53 (AsDB Community Livestock Development Project) and 0.95 (AsDB Raising Incomes of Small and Medium Farmers Project). The current analysis adopts SWRCF at 0.75 (IFAD Rural Employment and Remittance Project and Value Addition for Inclusive Transformation of Agriculture).

⁵ Report on "Seed Replacement Rate (SRR) Study on Cereal and Vegetable in KUBK-ISFP Districts, 2019

The Programme does not intend introducing labour intensive agricultural practices. The newly introduced technology in agriculture and animal milk lead to marginal increase in demand for labour. On the other hand, there could be increase in labour use for improved goat production due to extensive focus of the programme from free grazing to stall feeding. The analysis adopts a constant daily labour cost of NRs 350.0 for the entire assessment period.

Table 1: Seed Replacement Rate in the Programme District

Crop	KUBK Grantee	KUBK Non-Grantee	Total
Paddy	24.7	18.3	21.1
Maize	29.9	23.1	25.8
Wheat	30.0	22.1	25.1
Bean	69.2	57.5	65.0
Pea	57.7	52.7	55.9
Radish	58.5	51.8	54.7
Total	32.2	23.3	27.3

Exchange rate used in the analysis is NRs 112.0 per USD 1.0.

The financial base cost of the Programme in July 2019 prices is estimated at NRs 4,812.6 million. Costs of the Programme components are distributed in the following shares: the Support to Extension of Formal Seed Sector (27.34%), the Smallholder Livestock Commercialization (26.13%), Local Institutional and Entrepreneurial Development (31.49%), and the Programme Coordination and Management (15.04%). The economic cost of the Programme is estimated by removing price contingencies and all taxes and duties from the financial cost.

Detailed assumptions for the demonstrated models are presented under the relevant sections below.

Results

The results of the financial analysis are described in the following order. Firstly, the analysis will describe assumptions and financial results for the seed producing farm groups, the individual seed producing households and enterprise models as well as likely benefits from adoption of improved cattle/buffalo and goat management and genetics that demonstrate likely activities and benefits from Programme fund allocated for a matching grant scheme (MGS) and micro-grant. Secondly, it will present crop production models that would separately illustrate benefits from adoption of improved seeds on agricultural lands located in the Programme districts and beyond on non-Programme districts⁶. Thirdly, the analysis will demonstrate the incremental income of the credit financed income generating activities / micro-enterprise supported under guarantee fund or supplementary loan fund provided by the Programme to SFDB to on-lend to partner SFACLs developed by NACCF. Finally, the analysis will demonstrate the financial and economic impacts for the overall Programme.

Seed Production Models: Seed Producing Groups

At design, the analysis estimated benefits to seed producing farm groups using four models that represent their business orientations and types of produced seeds (cereal/vegetable)⁷. All models

⁶ The surplus of improved seeds produced in the Programme was distributed to other districts in the Hills zone and it has been assumed that the same trend will continue during the assessment period.

⁷ The cereal seed producing group 1 model represents seed producing groups that intend producing seeds for PSCs only through contract farming arrangements. The cereal seed producing group 2 model demonstrates seed producing groups intending to produce bulk of the seed volume for PSCs and keeping certain amount of output for direct marketing under the own label of the group. The cereal seed producing group 3 model illustrates seed producing groups and/or cooperatives that would maintain direct control over the whole seed output, and likely to become a private seed company. The vegetable seed producing group model demonstrates seed producing groups that would produce vegetable seeds for PSCs through contract

represent typical seed producing groups each consisting of individual small farms contributing around 0.60 ha of land for the cereal seed production and 0.20 ha for the vegetable seed production. During implementation, only two models of seed production (i) seed production model 2 and (ii) the vegetable seed producing group model were implemented.

To be consistent to design consideration, the analysis was done to assess benefits to individual households dedicating different sizes of lands for seed production. Estimated benefits are those that derive solely from the seed production activities excluding benefits from the incremental productions of other crops such as vegetable and cereal crops.

During appraisal, three PSC seed production models⁸ were analyzed and benefits to PSCs are represented by one cereal seed producing PSCs of large sizes and one vegetable seed producing PSC of medium size. Against the appraisal target of total coverage of around three large and four medium size cereal PSCs and four vegetable PSCs, during implementation the programme covered three large cereal PSCs and one vegetable PSC. These seed production related models were based on existing seed production activities of National Agricultural Research Centre of Nepal (NARC) and private seed companies. Details of financial and technical parameters of seed producing group models are described below.

Cereal seed production

The programme supported seed producing groups that are producing cereals for food before the programme and switched to cereal seeds production to increase income by investing in irrigation infrastructure and equipment⁹. The groups consist of producing bulk of seed volume for PSCs under contract farming arrangements and keeping certain amount of output for direct marketing under the own label of the group. They are producing seeds of required quality through use of required amount and quality of inputs and adoption of adequate farm management practices.

The seed producing groups comprises of advanced commercial-oriented members presently cultivating cereals (wheat, maize and paddy) for food consumption with the use of required quantity of inputs and good farm practices. Due to poor availability of irrigation water, their land is utilized at only 100 percent.

As done in appraisal, the model assumes that investments would enable the seed producing groups to produce improved seeds of about 2.1 MT of maize, 3.8 MT of paddy and 2.6 MT of wheat annually. These would correspond to seed yields of 2,000 kg/ha for maize, 3,500 kg/ha for paddy and 2,200 kg/ha for wheat. The model further assumes that improved irrigation water availability combined with better farm management techniques would allow group to increase cropping intensity by 70 percent. The incremental areas are assumed to be allocated for food crops and vegetable productions including tomato (29%), pea (14%), carrot (14%), capsicum (14%) and paddy (14%). Yields of incremental crops are expected to be similar to yields currently received by a typical farmer in the Hills zone.

The investment cost in irrigation infrastructure was NRs 500 000 (USD 6,250) including group's contribution of NRs 100 000 (USD 1 250) and matching grant of NRs 400 000 (USD 5 000). The investment in equipment is estimated at NRs 352 000 (USD 4 400) on 50:50 group's contribution and the Programme's matching grant.

The results provided in Table 1 suggest that the investment increases net margins from about NRs 5 000 to NRs 200 000 per group, and yields net incremental benefits with a FNPV of NRs 17 000 per ha and a FIRR of 19.0%. The benefit to cost ratio is estimated at 1.21.

farming arrangements. The estimated number of beneficiaries under each model was: ... 280 groups under model 1, 80 group each in model 2 and 3 and total number of vegetable seed producing groups is expected to be 320.

⁸ These models are (i) large private cereal seed company model, (ii) medium private cereal seed company model and (iii) private vegetable seed company model.

⁹ The package of equipment includes various agricultural and/or seed processing equipment. This of course depends on the specific needs of the groups.

Table 2: Financial Results of Seed Production Groups

Indicators	Unit	Cereals Seed Production Group			Vegetable Seed Production Group		
		WOP	WP	Incremental	WOP	WP	Incremental
Net margin	Rs/group	5,000	200,000	195,000	304,000	590,000	286,000
Net margin	Rs/ha	1,000	8,000	7,000	13,000	22,000	9,000
FNPV	Rs/group		523,000			579,000	
FNPV	Rs/ha		19,500			21,000	
NPV	Rs/ha		18.5			19.13	
B/C ratio	Ratio		1.25			1.27	

Vegetable Seed Production Model:

This model means that the farmers' groups currently producing vegetables for consumption and switching to production of vegetable seeds to increase income by investing in irrigation infrastructure and equipment. The group is expected to produce seeds for the PSCs through contract farming arrangements. In addition, the group is expected to be committed to production of seeds of required quality through the use of required amount and quality of inputs and adoption of adequate farm management practices.

At appraisal, the model assumes that group currently produces cauliflower (30%), pea (25%), radish, carrot (10%), tomato (10%), capsicum (5%), and onion (5%) for food consumption, and the investments would enable the group to shift to production of improved seeds of currently grown crops by keeping the same allocation of lands under each crop. Yields of seeds was estimated at 400 kg/ha for cauliflower, 1,500 kg/ha for pea, 800 kg/ha for radish, 600 kg/ha for carrot, 130 kg/ha for tomato, 160 kg/ha for capsicum, 500 kg/ha for onion, and 200 kg/ha for chilli. The group was estimated to produce annually improved seeds of about 600 MT of cauliflower, 300 MT of carrot, 600 MT of radish, 1 875 MT of pea, 65 MT of tomato, 40 MT of capsicum, and 125 MT of onion. The total annual output of vegetable seed is estimated at 3 605 MT. During implementation, there was remarkable change on cropping pattern on vegetable farming. Five types of vegetable seed namely radish, broad-leaved mustard, pea, bean (four season), and onion were only grown and their proportion of cultivation has been 20% each of radish, broad-leaved mustard, pea, bean (four season), and onion.

Average investment cost in irrigation infrastructure was NRs 700 000 (USD 6 250) including the group's contribution of NRs 140 000 (USD 1 250) and matching grant of NRs 560 000/- (USD 5 000). The investment in agricultural and/or seed processing equipment was NRs 492 800 (USD 4 400) on 50:50 group's contribution and the Programme's matching grant condition.

As the results presented in Table 1 suggest the investment increases net margins from approximately NRs 304 000 to NRs 590 000 per group, and yields net incremental benefits with a FNPV of NRs 20 000 per ha and a FIRR of 19.13%. The benefit to cost ratio expected to be 1.27.

Seed Production Model: Households

The analysis examines the benefits to seed producing individual households as well as the impacts on households' incomes deriving from different sizes of the landholding area dedicated to seed production. In **the base case scenario**, each household member of cereal seed producing group crop 0.60 ha, while a member of vegetable producing group crop 0.20 ha. **Scenario 1** estimates benefits for households cropping 0.40 ha in case of cereal seed production and 0.10 ha in case of vegetable seed production. **Scenario 2** assumes that a cropping area of the cereal seed producing households would be only 0.20 ha, and a cropping area of the vegetable seed households remain at 0.10 ha. The exercise estimates only those benefits that are attributable solely to seed production activities and excludes benefits deriving from the incremental production of vegetable and cereal crops.

Financial results presented in Table 3 suggest that there will be financial incentives to engage in seed production activities for all households regardless of size of land contributed for seed production. The lowest incremental benefits are expected for households with cropping areas of 0.60 ha for cereal and highest for mix of cereal and vegetable seed production group in 0.3 ha. For vegetable seed

producing groups, it was in-between. The incremental gross margins on different categories are expected to be in the ranges of NRs 14,500 (for cereal seed production model) and NRs 18,700 for group producing mix of cereal and vegetable seed producing households.

Table 3: Financial Results for Individual Seed Producing Households

Particulars	Gross Income NRs. /ha ¹⁰			Estimated number of households
	WoP	WP	Incremental	
Cereal seed production model (0.6 ha.)	1,800	16,300	14,500	3,515
Vegetable seed production (0.2 ha)	28,900	46,700	17,800	16,754
Both cereal and vegetable seed producing HHs (0.3 ha)	24,800	43,500	18,700	5,560
Total number of HHs (unit)				25,829
Average adoption rate				36.2%

Agricultural Production with Improved Seeds

The Programme produced around 7 407.5 MT of seed comprising of 1 788 MT of TL paddy; 1 565 MT of TL wheat, 4 054 MT of TL Maize and 535 MT of TL vegetable against design target of 760 MT of TL paddy; 830 MT of TL maize; 1 660 MT of TL wheat; and 500 MT of a range of TL vegetable seeds. These were sufficient for sowing of some 29 800 ha of paddy; 101 000 ha of maize; 13 000 ha of wheat and 53 500 ha of vegetables. The TL seed production met the demand of the Programme districts and part of it was distributed to other non-Programme districts in the Hills zone. Benefits to the Programme and non-Programme areas are estimated separately as discussed hereunder.

Farm Community in the Programme Area

The Programme districts have around 204 000 ha of agricultural land operated by around 240 000 farmers, and is presently used for production of maize (101 000 ha), wheat (55 000 ha), paddy (41 000 ha), and vegetables (7 000 ha). The Programme produced improved seeds has been used for entire maize and vegetable areas and some 50 000 ha of paddy and 41 000 ha of wheat areas in the Programme districts.

The Programme provided financial support to farmers to rehabilitate irrigation and other rural infrastructure and to purchase seeds. The infrastructure funds of the programme were as used solely for rehabilitation of irrigation infrastructure as poor and/or lack of access to irrigation water is the key constraint faced by many Hill farmers. Estimated cost of investment was NRs 22 950/ha (USD 200), and would be provided under a 50:50 beneficiaries' contribution, and matching grant basis.

At appraisal, average SRR was very low averaging 1.5 to 3 percent for all major crops. Combined with the low use of quality inputs, poor (or lack of) access to irrigation water and poor farm management practices, crop productivity in the Hills zone was much below its potential. The crop yields was 1 200 kg/ha for wheat, 1 800 kg/ha for maize, 2 400 kg/ha for monsoon paddy, 8 000 kg/ha for carrot, 13 500 kg/ha for radish, 2 700 kg/ha for pea, 10 000 kg/ha for tomato, 12 000 kg/ha for cauliflower, 7 000 kg/ha for capsicum, and 11 000 kg/ha for onion.

The programme support on adoption of improved seeds, improved availability of irrigation water, increased use of composts combined with better farm management practices increased productivity for all crops by 20 percent. The crops promoted for seed production include paddy, wheat, maize, bean, pea and radish. The analysis estimated that about 80 percent of area sown with improved seeds benefitted from increased yields, and it does not assume crop diversification and intensification.

The result in Table 4 reveals that programme supported investments generated incremental net margins per ha of crop in the ranges of NRs 11 000 (maize) and NRs 78 000 (onion). The average incremental net margin for all crops is estimated at NRs 13 000 per ha. Investments expected to generate incremental returns with a FNPV of NRs 28 000 per ha, and a FIRR of 17.5%. The benefit to cost ratio is estimated at 1.18.

¹⁰

Gross margins from production activities only (e.g. excluding fixed costs and contribution to investments)

Table 4: Financial Results for Farm Community in the Programme Areas

Crops	Gross Margin, NRs/ha		
	WOP	WP	Incremental
Maize	3,000.0	14,000.0	11,000.0
Paddy	0.0	37,000.0	37,000.0
Wheat	17,000.0	41,000.0	24,000.0
Capsicum	39,000.0	96,000.0	57,000.0
Carrot	31,500.0	34,900.0	34,000.0
Cauliflower	18,300.0	23,900.0	5,600.0
Onion	51,200.0	59,000.0	7,800.0
Pea	17,000.0	38,000.0	21,000.0
Radish	59,000.0	74,000.0	15,000.0
Tomato	17,200.0	23,200.0	6,000.0
Gross Margin, '000 NRs	475,300.0	649,400.0	174,100.0
Gross Margin, NRs/ha	24,000.0	32,000.0	8,000.0
FNPV, '000 NRs			552,700.0
FNPV, NRs/ha			2,800.0
FIRR, %			17.5
B/C ratio			1.18

Farm Community in the Non-Programme Areas

Contrary to year 4, the programme generated surplus seeds for the non-programme areas in the Hills zone from 5th year onwards. PCR mission estimated that that by the year 6 there were 57 000 ha of vegetable, 19 000 ha of maize and 14 500 ha of wheat and 5 000 ha of paddy areas was sown with the use of the improved seeds. Total numbers of farmers operating the above 96 000 ha are estimated at 25 000.

The WoP yields of all major crops in the non-programme areas are low and are similar to yields in the Programme area. The analysis assumes that the non-programme farmers will adopt improved seeds but will not be committed to invest in irrigation infrastructure, increased use of inputs and improved farm management. The incremental yields attributable solely to the use of the improved seeds are projected at 10-15 percent. The analysis assumes that only 80 percent of total areas sown with the improved seeds would achieve projected yield increases.

As the results in Table 5 show, the expected incremental net margin per ha would range from NRs 2 000 for wheat to NRs 47 000 for tomato. Average incremental net margin per ha is estimated at NRs 14 000. The adoption of the improved seeds would generate incremental returns with a FNPV of around NRs 12 000 per ha and a FIRR of 15.6%. The benefit to cost ratio is estimated at 1.17.

Table 5: Financial Results for Farm Community in the Non-Programme Areas

Crops	Gross Margin, NRs/ha		
	WOP	WP	Incremental
Maize	2,100.0	9,600.0	7,500.0
Paddy	-	15,000.0	15,000.0
Wheat	17,000.0	19,000.0	2,000.0
Capsicum	39,000.0	61,000.0	22,000.0
Carrot	31,300.0	33,600.0	2,300.0

Crops	Gross Margin, NRs/ha		
	WOP	WP	Incremental
Cauliflower	18,300.0	19,500.0	1,200.0
Onion	51,200.0	54,900.0	3,700.0
Pea	17,000.0	31,000.0	14,000.0
Radish	59,00.0	65,000.0	6,000.0
Tomato	17,200.0	21,900.0	4,700.0
Gross Margin, '000 NRs	968,700.0	994,000.0	25,300.0
Gross Margin, NRs/ha	10,200.0	20,400.0	10,200.0
FNPV, '000 NRs			109,400.0
FNPV, NRs/ha			12,000.0
FIRR, %			15.60
B/C ratio			1.17

Improved Livestock Production

Cattle / Buffalo milk production and goat meat production were supported in the programme to support the commercialization of livestock production system.

Cattle / Buffalo Milk Production

The programme facilitated the dairy farmer to replace two traditional buffalos / cattle with two crossbreed buffalos / cattle investing in a barn improvement and production of forage plantation to improve livestock nutrition. Under this support, with the adequate animal nutrition and management, the farmer received milk yield of 3 500 liter annually per improved / cross bred cattle / buffalo. The annual milk yield per traditional buffalo / cattle was 650 liter /head. Both traditional and Murrah buffalos are estimated to have a calve mortality rate of 5 percent and adult cattle mortality rate of 2 percent. The calving interval was 14 months for improved cattle / buffalo while 16 months for the traditional buffalos / cattle. Herd size is expected to be maintained at four milking buffalos / cattle, and calves are sold before they reach one year old. Milking buffalos are replaced after a fifth lactation. Prices for traditional and improved calves are expected to be NRs 15 000/head and NRs 17 000/head, respectively. Time to be spent by the farmers for both traditional and improved cattle / buffalo productions was almost identical.

The investment in the improved cattle and buffalo was NRs 40 000 (USD 500) per head at design which increased to NRs. 80 000 (USD 695). The farmer is expected to make additional investment in shed improvement at NRs 115 000 (USD 1 000) and forage materials NRs 23 000 (USD 200). The Programme is made available around 2 000 female cattle/buffalo crossbreed calves over the Programme implementation period. About 65% dairy farmers adopting cross-breed cattle / buffalo are likely to achieve full benefits.

Financial results presented in Table 6 demonstrate that at full maturity, the investment would generate an incremental gross margin of NRs 99 700, a FNPV of NRs 435 800 per farmer and a FIRR of 69.3%. The benefit to cost ratio was 3.08.

Table 6: Financial Results for Improved Dairy Production

Indicator	WOP	WP	Incremental
Gross income per member (NRs) ¹¹	8,751	129,894	121,143
FIRR (%)			15.5%
FINV (Rs.)			41,918
BCR			3.08

¹¹ Average for the Programme period

Goat Production Model

The programme supported farmers to replace two goats of local Khari cross-breed with two goats of Boer cross breed, improving goat pen, producing forage crops to improve goats nutrition, and adopting better animal nutrition and management practices. The local Khari goats are hardy and fertile but give maximum weight of 17-20 kg at one year old and a 25 kg at mature age. On the other hand, Boer goats can reach up to 35 kg at one year and about 55 kg at adult age. With the adequate animal nutrition and management, the farmer obtained a live weight of 35 kg at one year for the cross-breed goat. The goats of both breeds are gave 1.75 kids per birth from improved breed goats allocated by the Programme and have 3 births per 2 years. Mortality rates for kids and mature female goats of the Khari breed was estimated to be 12 percent and 2 percent respectively. Mortality rates for the improved goats were 2 percent for kids and 8 percent for mature females. The model conservatively assumes that both traditional and improved commercially oriented herds have five goats per farmer. The farmer is expected to retain 5 does and market the rest. Live weight prices for animals of both breeds are expected to be NRs 500/kg. There was no incremental labour as increased labour on allocated forest areas matches with increased productivity of these areas.

The cost of the Boer cross-breed goats was expected to be NRs 17 250 (USD 150). The investments in the goat pen improvement and forage plantation is estimated at NRs 57 500 (USD 500).

The Programme established two breeder herds and 5 multiplier herds and distributed around 2 000 Boer bucks to benefit about 20 247 goat farmers (including about 12 000 farmers supported by Heifer). The analysis conservatively assumes that only 75 percent of goat farmers adopting the Boer goat will achieve full benefits.

Financial results presented in Table 7 demonstrate that the investment would increase the average gross margin for the farmer from NRs 18 456 to NRs 114 510 (before farm labour) and generate incremental returns with a FNPV of NRs 21 027 and a FIRR of 14.4%. The benefit to cost ratio is estimated at 2.55.

Table 7: Financial Results for Improved Goat Production

Indicator	WOP	WP	Incremental
Gross income per member (NRs) ¹²	18,456	114,510	96,054
FIRR (%)			14.4%
FINV (Rs.)			21,027
BCR			2.55

Local institutional and entrepreneurial development

There are 75 SFACLs formed by NAFCCCL has brought 40 622 households under their ambit, and all these SFCLs were linked to SFDB and availed SFDB loans. Increased membership, share capital, savings and loans are reported. The savings and loans growth of more than 80% is a healthy sign of member interest in their cooperative. There is average membership of 542. SFDB had provided loans to SFACLs, the loan outstanding as of December 2019 stood at NPR 606.4 Millions, reflecting an increase of more than double over the last year. The SLA between the government and SFDB was signed for release credit line of \$ 8.0 million. All these SFACLs formed under in the programme were linked to SFDB.

Capacity of the SFACLs developed by NAFCCCL and SFDB is mixed and found to be the function of their maturity. Their transaction is not automated and manual system adopted on book keeping and accounting is subject to errors. Loan management system is not scientific and for the sake of operational simplicity, loan terms of most loans are fixed at 1-2 years. Both SFDB and SFACL should

¹² Ibid

provide some capacity building support and initiate concrete action to make these cooperatives eligible for borrowing from SFDB.

Of the total active savings clients of 40 622, 40% numbering 16 350 are the active loan clients. These active loan clients are managing micro-enterprises comprising of agriculture (39.8%), livestock (54.7%) and non-farm activities (5.6%). While over 90% of these enterprises were expansion and strengthening of the existing enterprise, the remaining 10% were new enterprise. Table 8 summarizes the results of the credit financed microenterprises.

Table 8: Financial Results for Credit Financed Micro-enterprises

Indicators	Agriculture	Livestock	Non-farm enterprises
Number of enterprises	6,500	8,937	914
Gross incremental income per member (NRs)	33,570	43,650	36,540
FIRR (%)	20.6%	27.8%	22.9%
FNPV (Rs.)	12,164	27,298	29,443
BCR	2.46	3.68	3.24

The programme impact to promote value chain enterprise has been evident on promoting (i) seed enterprises, and (ii) other enterprises comprising of dairy processing enterprises, butcheries / improved slaughter small scale house, and para-vet/agro-vet.

Seed Enterprises:

Two types of seed enterprises (i) three large private cereal seed companies and (ii) one vegetable seed companies were supported.

Large Private Cereal Seed Company

This refers to existing PSC that has upgraded and expanded its production to meet seed demands from the Hill farmers. On an average they produce 1 100 MT of improved cereal seeds. Their capacity to expand business was enhanced through programme support on facility expansion and enhanced management and marketing skills. Through programme support, PSC invested in the construction of conditioned storage facilities, seed processing equipment, transport means, generators and set up laboratory facilities. The investment increased profitability of PSCs by reducing seed distribution and contract arrangement costs and production losses, and gradually expanding annual production capacity up to 1,000 MT over 4 years. The investment has expanded market access for a large number of small seed growing farmers in a typical contract farming arrangement.

At appraisal, the output of the PSC was 500 MT (200 MT of improved and 50 MT of foundation wheat seeds, 100 MT of improved and 25 MT of foundation paddy seeds and 100 MT of improved and 25 MT of foundation maize seeds) of wheat, paddy and maize seeds. The investments support from the programme enabled the company to expand their operation to 1 100 MT (500 MT of improved and 100 MT of foundation wheat seeds, 200 MT of improved and 50 MT of foundation paddy seeds, 200 MT of improved and 50 MT of foundation maize seeds) of these seed. The investments are reduced current operational and administrative costs per kg from its current level at NRs 5.1 to NRs 3.8. All seed outputs are being sold at wholesale prices. The total investment cost was NRs 32.0 million (USD 400 000), structured with beneficiary's contribution of NRs 16.0 million (USD 200 000), and the Programme contribution of the same amount through Competitive Grant Scheme (CGS).

Financial results presented in Table 9 suggest that the investment would generate an incremental net return of FIRR of 13.2% and a FNPV of NRs 6.5 million at the programme's full development in the year 20. The benefit to cost ratio is estimated at 1.13.

Table 9: Financial Results of the PSCs

Indicators	Unit	Cereal PSC (large)			Vegetable PSC		
		WOP	WP	Incremental	WOP	WP	Incremental
Net margin	Rs. '000	6,800	15,000	8,200	17,700	24,900	7,200
FNPV	Rs. '000		6,500			8,800	
FIRR	%		13.2			17.3	
B/C ratio	Ratio		1.13			1.19	
PSCs	No	3			1		

Private Vegetable Seed Company

Private vegetable seed company upgraded and expanded its production to meet domestic demand for vegetable seeds. Through programme support, the company invested in construction of conditioned storage facilities, seed treating, processing, and packing equipment. As a result of such improvements, the company's annual operation would increase from current 75 MT up to 115 MT of improved vegetable seeds.

The seed company produced 115 MT of vegetable seed comprising of carrot, cauliflower, capsicum, chilli, onion, pea, radish, and tomato seeds from 75 MT of different types of vegetables. The company kept same assortment of seeds but expanded the production of each variety by around 65 percent. The total investment cost was NRs 30.0 million (USD 375 000), structured with beneficiary's contribution of NRs 15.0 million (USD 187 500), and the Programme contribution of the same amount through CGS.

The investment, as the results in Table 9 revealed a FNPV of NRs 8.8 million and a FIRR of 17.3%. The benefit to cost ratio was 1.19.

Other enterprises

The programme support promotion of 17 small scale dairy processing enterprises, 28 butcheries / improved slaughter small scale house, and 10 para-vet/agro-vet. Table 10 summarizes the financial results of other enterprises.

Table 10: Financial Results of the Other Enterprises

Indicators	Small Scale dairy processing	Butcheries / Slaughter houses / Meat	Para-vet / Agro-vet
Number of enterprises	17	28	10
FIRR (%)	17.0%	21.5%	18.9%
FINV (Rs.)	697,632	628,880	129,168
BCR	1.11	1.19	1.10

Overall Programme

The Programme investments generate incremental financial returns with a FNPV of USD 4.2 million and a FIRR of 12.9%. The benefit to cost ratio would be 1.11.

Table 11: Financial Result for the Programme

Indicators	Results
IRR (%)	12.9%
FNPV, mln USD	4,287
B/C ratio	1.11

ECONOMIC ANALYSIS

Methodology and Assumptions

The illustrative models described under the financial analysis section were used as a basis for the calculation of the overall benefit streams after conversion of financial prices into economic prices.

Conversion of the financial values into economic ones was done by deducting taxes, duties and subsidies. All costs are expressed in July 2019 constant prices.

Results

The Programme as a whole, yields an economic net present benefit (ENPV) of USD 17.74 million and an economic internal rate of return (EIRR) is estimated at 20.4%. The benefit to cost ratio is 1.68.

Table 12: Economic Results for the Programme

Indicators	Results
IRR (%)	20.4
ENPV, mln USD	17.74
B/C ratio	1.68

Economic returns were examined for the same sensitivity variables. The results presented in Table 13 suggest that the EIRR and NPV are moderately sensitive to changes in programme benefits and programme cost both.

Table 13: Results of Sensitivity Analysis

Sensitivity scenario	Δ%	Link with the risk matrix	IRR	NPV (USD M)
Base scenario			20%	17.74
Programme benefits	-10%	Combination of risks affecting output prices, yields and adoption rates	18%	12.28
Programme benefits	-20%		16%	8.28
Programme costs	10%	Combination of risk associated to inflation of programme related materials	18%	13.91
Programme costs	20%		17%	11.53
Programme benefits delayed by one year			14%	7.70
Programme benefits delayed by two year			12%	4.34

Above programme performance indicators estimated at PCR were compared with those of the indicators estimated at Programme Design and these are presented in Table 14 below:

Table 14: Comparison of Programme Performance Indicators

Programme performance indicators	Ex-ante Appraisal a/	Ex-post at PCR
IRR %	23%	20%
NPV on discounted cash flow (NPR million)	1,600	1,7740
BCR of discounted cash flow	1.5	1.7
a/ Although no systematic EFA was carried out at Design, its performance indicators were far more robust than the ex-post indicators at PCR.		

Major interventions under KUBK and number of participating households, household incomes by value chain are given in Table 15 below:

Table 15: Commodities, Number of participating HHs and HHs incomes

Commodities	# of operating households	Adoption rate (%)	Actual number of HHs	Incremental Gross Income (NPR)	Incremental input cost (NPR)	Incremental Labour (NPR)	NPV at 10% (NPR)
Vegetable seed production	3,515	60	2,109	202,000	50,600	36,300	67,949.2
Cereal seed production	16,754	30	5,026	166,000	41,000	38,000	(8,074.7)
Cereals / vegetable seed production	5,560	40	2,224	256,000	66,000	34,000	27,123.4
Dairy cattle / buffalo	5,154	65	3,350	170,000	6,000	29,000	34,186.2
Goat c/	20,246	70	15,185	123,000	4,000	18,000	31,926.5
Small scale dairy enterprise	17	75	13	1,050,000	66,000	14,000	410,729.2
Meat / Butheries	28	90	25	565,000	54,000	14,000	442,276.7
Agrovet / paravet	10	80	9	290,000	54,000	14,000	96,559.7
Seed enterprise	4	100	4	19,500,000	6,000,000	492,000	2,162,385.4
SFCLs supported micro-enterprises	40,622	40	16,350	26,000	1,000	4,000	15,787.0
Total, average	91,910	45	44,295	108,374	13,172	17,647	23,624
a/ One Ropani = 500 m ² and area as reported during 2019/20; b/ average area operated by a household, and area under other crops not included; c/ Number of goats (including buck, does, kids) maintained by a households;							

Assessment: It is inferred from the household models that barring cereal seed production is not financially viable. It is deduced from the Switching Value Analysis (SVA) that in the order of priority goat, followed by dairy and vegetable seed VC must be supported as these are financially viable. As households manage their household expenditures by pooling incomes from other sources such as remittance, livestock, wages, services, other subsidiary occupations etc and **if household labour is excluded from the production costs, then all value chain models are financially viable and sustainable.** For other value chains, significant support in the form of financial assistance and inputs etc will be necessary.

Household incomes from KUBK interventions: The immediate benefits from the programme are increased productivity-through the introduction of better management and improved farming practices of the value chain commodities. This response is expressed as increased household incomes and these are shown in Table 16 below.

Table 16: Household Incomes at full development stage

	Without programme	With programme c/	Incremental
All households income (NPR/hh) a/	18,500	123,305	104,805
All households income (NPR/hh) b/	58,750	192,955	134,205
Household labour (person-days/hh)	115	199	84
a/ value of labour excluded; b/ value of labour accounted as income; c/ likely achievement in programme year 13 or 14			

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 5: Environmental social and climate impact assessment (detailed analysis)

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
DSF Grant ID 1000004341

Asia and the Pacific Division
Programme Management Department

This document will be publicly disclosed unless there is written dissent on its disclosure by the Borrower at the time of this document submission to IFAD or no later than the project closing date.

Appendix 5: Environmental social and climate impact assessment (detailed analysis)

This Programme was classified as Category B at the time of loan approval. The strategy adopted for

Implementation and impact of activities undertaken do not necessitate its re-classification. KUBK was designed in a participatory manner, taking into account the concerns of all stakeholders and it has been implemented in compliance with IFAD and GON policies, standards and safeguards including SECAP. It is consistent with IFAD's Strategic Framework calling for promoting the sustainable use of natural resources, building resilience to climate change, HVAP has been implemented emphasising on the ownership by rural women and men themselves in order to achieve sustainability

Component 1: Support to the Extension of the Formal Seed Sector:

Crop improvement combined with affordable and adequate seed supply is essential for food security and nutrition and improved livelihoods in mountain (middle hill) agriculture system. The availability of, and access to, quality seeds of a diverse range of adapted crop varieties is essential for achieving food and livelihood security and for eradicating hunger, especially in mountain regions where marginal lands and low productivity are very common. Strengthening both formal and informal seed systems is therefore an integral part of the sustainable use of plant genetic resources for food and agriculture in mountain farming system. Farmers' access to quality seed is commonly limited in the mountain regions of Nepal, and informal seed systems remain the main source of seed for local and, in some cases, improved varieties.

The component one of the programs focused in increasing the productivity by using the labeled and verified seed. This Programme produced positive economic impact to the vegetable and cereals growers. The farmers got access to TL and quality seeds which directly increase productivity and save the crops from different diseases and pest attack. This had increased the adaptive capacity of the farmers by using of the labeled and trusted seed. The expansion of seed sectors also helps the farmers to increase their confidence to use the quality seed and encourage them to use replicate in the areas. This directly contributed to increase farmer's resilience in seed sector. The social impact of this could be the sharing and changing the knowledge between the users of labeled trustfully seed for growing vegetation and cereal crop.

Component 2: Smallholder Livestock Development

Livestock is a significant contributor to GHG emissions, however, it is also a large contributor to agricultural GDP and many livelihoods depend on livestock in the middle hills of Nepal. Moreover, different livestock production systems have their specific environmental effects and not all systems contribute to the same problems or to the same extent. In trying to address climate change is crucial to link technologies and policies to specific livestock production systems. Farmers in marginal areas rely largely on highly variable natural resources and have few safety nets. Climate change is likely to affect livestock farmers and the ecosystems on which they depend; in some places reducing the productivity of rain-fed crops and forages, reducing availability of water and increasing severity and distribution of human, animal and crop diseases. Households will be forced to adapt to changing circumstances by introducing new production technologies, embracing sustainable natural resource

management practices and, in some cases, changing the way they make a living. The Programme encouraged farmers for keeping improved varieties of breeds that contribute to reduce soil degradation and increase production.

Ever increasing demand for animal-based products and on the other hand the impact on climate change on livestock production, particularly in developing regions, and the negative contribution of livestock to a changing climate. The livestock sector has to become more sustainable while adapting to climate change and at the same time meeting the demands of the growing population for animal-based products.

The value chain approaches and diversification of the products, market linkages and capacity development of the farmers through the FFS brought positive contribution to increase resilience of the small farmers in the mountain (mid hill) region where keeping few goats and cattle are common practices. This brought changes as by keeping the improved varieties of the livestock, farmers get more benefits with similar or even lower cost. Market linkages and value addition provided additional income to the farmers. Getting benefits from multiple ways creates the avenue for income generations such as dairy production at the local level and also increase income level of the households. Selling livestock (goats) or milk to cope with the stress can be considered as another major contribution of the programme.

From the environmental perspective, the programme encourages the farmers to reduce in using chemical fertilizers and use of organic manure in kitchen gardens and farms which not only contributed in saving money but also saved environmental degradation. In addition to this the livestock rearing farmers in the mid hills of Nepal are planting fodder trees in the terraces for feeding their livestock and that will indirectly contribute to increase biomass and reduce soil erosion. Another environmental benefits that the programme has contributed to reduce pressure on soil. Most of the farmers who kept improved livestock followed stall-feeding which ultimately reduces soil erosion.

Component 3: Entrepreneurship and institutional development

The value micro finance holds for climate change adaptation can be attributed to its outreach to vulnerable populations through a combination of direct and indirect financial support and long-term nature of its services that help families build assets and coping mechanisms over time, especially through savings and increasingly through micro-insurance-products and sharing of knowledge and information to influence behaviours. It was also observed that through the provision of credit and other financial services microfinance helps the poor develop alternate livelihood opportunities, build assets and spread risks. These actions would also - in most cases - automatically reduce vulnerability to climate risk even if there is no explicit consideration of such risks.

Although typically more costly than commercial loans, micro-finance can support entrepreneurial undertakings by those unable to get bank loans, help diversify local economies, and empower women in particular, which in turn contributes to adaptive capacity in a local context. The saving credits group formation at the community level increases access of local people to services more easily than the larger MFI and banks. That encourages the farmers for taking small amount of loan and open their small shop/ tea shop, tailoring center etc. to diversify their livelihoods.

There were some evidences that the women make up a large section of informal businesses and microfinance often involves self-employment in the informal sector in the Nepalese mid hills such as pickle making, carpet weaving, hems weaving, etc. Moreover, it has been noted that women, are more likely to engage in microfinance programmes and participate regularly in related training sessions and capacity building. It was also noted that that the targeting loan to women also fosters their empowerment for initiating their entrepreneurship.

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 6: Dates of supervision mission and follow-up missions

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
DSF Grant ID 1000004341

Asia and the Pacific Division
Programme Management Department

This document will be publicly disclosed unless there is written dissent on its disclosure by the Borrower at the time of this document submission to IFAD or no later than the project closing date.

Mission	Dates
Supervision Mission 1	02 June 2013 - 16 June 2013
Supervision Mission 2	14 April 2014 - 28 April 2014
Impl. Sup/Follow Up Mission 1	03 August 2014 - 05 August 2014
Impl. Sup/Follow Up Mission 2	10 December 2014 - 19 December 2014
Supervision Mission 3	17 March 2015 - 02 April 2015
Impl. Sup/Follow Up Mission 3	02 June 2015 - 09 June 2015
Impl. Sup/Follow Up Mission 4	31 October 2015 - 05 November 2015
Mid-Term Review 1	29 February 2016 - 22 March 2016
Impl. Sup/Follow Up Mission 5	31 July 2016 - 04 August 2016
Impl. Sup/Follow Up Mission 6	04 November 2016 - 07 November 2016
Supervision Mission 4	12 February 2017 - 25 February 2017
Impl. Sup/Follow Up Mission 7	29 May 2017 - 07 June 2017
Supervision Mission 5	31 March 2018 - 14 April 2018
Supervision Mission 6	20 May 2019 - 03 June 2019

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 7: Terms of Reference of the completions review mission

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
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Asia and the Pacific Division
Programme Management Department

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Appendix 7: Terms of Reference of the completions review mission

COUNTRY OF ASSIGNMENT/LOCATION: NEPAL Improved Seeds for Farmers Programme/Kisankalagi Unnat Biu-Bijan Karyakram (ISFP-KUBK) – Loan: 881, Supplementary Loan: 2000000460, Grant: DSF-8106

MISSION NAME: Project Completion Review

MISSION START AND END DATES: 12 – 26 January 2020

REPORT TO: Tarek Kotb, Country Director, APR/PMD **MISSION**

COMPOSITION:

	Name	Thematic areas
1	Mr. Mr. David Doolan	Mission Leader; Programme Management and Institutions
2	Dr. Nara Hari Dhakal	Economic and Financial Analysis
3	Mr. Dilli Joshi	Monitoring & Evaluation and KM

INTRODUCTION

1. The Programme Completion Review (PCR) for the Improved Seeds for Farmers Programme (ISFP) is undertaken jointly by IFAD and the Ministry of Agriculture and Livestock Development (MOALD), Government of Nepal (GON). Its main purpose is to report on the results achieved through programme interventions for accountability and learning purposes. The process also helps to reflect on performance and elicit lessons learned.

2. The PCR process should be guided by the methodological framework set out in IFAD Project Completion Review Guidelines, while the present TOR describe the detailed objectives, timeline and deliverables of the completion review mission. In-country, the work of the PCR team will be facilitated by Programme Management Office, ISFP.

PROGRAMME BACKGROUND

3. The Improved Seeds for Farmers Programme/Kisankalagi Unnat Biu-Bijan Karyakram (ISFP-KUBK) was approved by the IFAD's Executive Board in September 2012 to be implemented for a period of seven years (2012 – 2019) in six districts¹. The Programme is designed to support two key aspects of agriculture sector hampering productivity: (i) improvement of formal seed (cereals and vegetables), and (ii) improvement of smallholder livestock (goats and dairy) in order to increase income of the poor rural households. This will be achieved by developing partnership between the farmer organisations and the private sector. The loan effectiveness date was 02 December 2012, the completion date is 31 December 2019 and the financing closing date is 30 June 2020.

4. Ministry of Agriculture and Livestock Development (MoALD) is the Lead Project Agency. Agro Enterprise Center (AEC) of the Federation of Nepalese Chambers of Commerce and Industries (FNCCI), Sana Kisan Laghubitta Bittya Sanstha (formerly known as Small Farmer Development Bank – SFDB) and Nepal Agriculture Cooperative Central Federation Limited (NACCFL) are the implementing partners. Heifer International is a co-financier and an implementing partner. The Programme focusses on seeds (cereal and vegetable), livestock development and rural finance.

5. The overall goal of the Programme is "Increased competitive, sustainable and inclusive rural growth" and the Programme's development objective is "Improved rural household incomes through sustainable, market-driven agricultural productivity improvements". The Programme has four components: (i) support to extension of formal seed sector; (ii) smallholder livestock development; (iii) local entrepreneurship and institutional development; and (iv) programme coordination and management. The first three technical components each have three subcomponents: (i-1) ensuring an effective enabling environment; (i-2) improved seed production; (i-3) promoting farmer demand for TL seed; (ii-1) improving dairy productivity; (ii-2) improving goat productivity; (ii-3) strengthening DLSOs; (iii-1) institutional strengthening; (iii-2) access to non-financial services; and (iii-3) increasing outreach of microfinance institutions.

6. The original Programme budget was USD 59.7 million in total, of which IFAD Loan and Grant were of USD 19.5 million (SDR 12.85 million) equivalent each. A Supplementary (IFAD) Loan of USD 5 million (SDR 3.27 million) was topped up for rural finance activities in May 2014. Heifer International has co-financed USD 2.5

¹ Gulmi, Arghakhanchi, Salyan, Pyuthan, Rolpa, Rukum. Initially, Rukum was one district, got split into Rukum East and Rukum West following the restructuring of the country with the new constitution adopted in 2015.

million. A partial cancellation of IFAD financing USD 10.0 million was effected, through signing of the amendment to the Financing Agreement on 21 November 2017, limiting IFAD financing of Loan to SDR 9.29 million and IFAD Grant to SDR 9.33 million to the Programme besides the Supplementary Loan of SDR 3.27 million.

7. A supervision mission for this Programme was fielded from 20 May to 03 June 2019. In addition to regular supervisory functions, the mission also guided the PMO in smooth completion of activities by the completion date.

MISSION OBJECTIVES AND OUTPUTS

8. The main task of the completion mission is to assess and document overall performance (refer to Annex 1 for details) of the Programme following the outline presented in IFAD's Project Completion Review Guidelines (2015). The mission will be focussing on the adequacy of the data and information for the analysis of four pillars, namely, i) relevance, ii) effectiveness, iii) efficiency and iv) sustainability and will validate the Project Completion Report submitted by the MOALD to IFAD. The mission will identify the areas of influences in the policy front in terms of smallholder commercialization perspective. More precisely, the detailed objectives of the completion process are to:

- a. assess the relevance of programme interventions at the time of design and in today's context,
- b. assess the effectiveness of programme implementation, or the extent to which the objectives were met, and to document the immediate results and impacts of programme interventions,
- c. review the programme costs and benefits and the efficiency of the overall implementation process, including IFAD's and partners' performance,
- d. assess the prospects of sustainability of programme benefits beyond programme completion,
- e. generate and document useful lessons from implementation that will help improve IFAD's or Borrower's future programming and designs, and
- f. identify any potential for the replication or up-scaling of best practices.

METHODOLOGY

9. The mission will use a mix of quantitative and qualitative tools in order to form an informed judgement on overall programme performance and results. Primary sources of information will include programme reports and documents (supervision reports, MTR report, progress reports, AWPB, etc.), M&E and MIS data (including RIMS data), any surveys or specific studies undertaken by the programme (including the RIMS impact survey), PMO and service providers' records and the records of the groups supported by the Programme. These sources will be used extensively in order to generate quantitative information on results or estimate efficiency.

10. In addition to primary sources of information, the mission will collect relevant data from secondary sources, such as national and local statistics, other donors' statistics, the civil society, private sector entities (trade associations, universities, etc.). These will be used mainly to bridge information gaps on certain issues or to cross-examine the data generated from other sources.

11. The method of direct observation will also be used by the mission. A sample of programme sites, or locations where activities took place, will be visited in order to collect impressions and feelings, verify that reported interventions took place, confirm that they met expected quality standards and beneficiaries' needs, or to take note of the external context of programme intervention. Selection of programme sites will require careful consideration in order to avoid biases.

12. In order to strengthen the analysis and overcome the weaknesses, intrinsic biases and the problems that may be associated with a single method, the mission will "triangulate" all findings, combining methods and data sources in order to cross-examine initial findings.

DELIVERABLES

13. Towards the end of the field work, a pre-wrap up workshop shall be held with the Programme Management to discuss the findings, conclusions and recommendations based on the working sessions. A final wrap up meeting with the government will be organized on 26 January 2020 in Kathmandu. The wrap up meeting will be organized as a stakeholders' workshop to disseminate the conclusions of the mission.

14. The Mission will be joined by the representatives of relevant government ministries such as Finance,

Agricultural and Livestock Development, National Planning Commission, representatives of sub-national Governments as appropriate. The government team will provide inputs to the mission and will contribute to the mission outputs.

15. At the completion of the mission, the ML will submit a full report in accordance with IFAD's procedures and templates (ORMS). This will include (i) Aide memoire and (ii) a draft management letter. The final PCR report will be submitted to IFAD no later than 15 February 2020.

INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES

Mr. David Doolan, Mission Leader, Programme Management and Institution Specialist

16. The Mission Leader (ML) will be responsible for leading the mission and ensuring that the terms of reference are fully met in a professional, efficient, effective and timely manner. To this end, the ML will coordinate, manage and review the work of the team. The ML will also have responsibility for supervising the outputs of each mission member and for ensuring the overall consistency and quality of all of the mission's written contributions. Specific responsibilities, among others, include:

- (a) Assess the overall performance of the Programme implementation progress and make an evaluation of realized implementation as compared to the expected results and objectives specifically on the quality of Programme Management and efficiency of the implementing agencies/partners;
- (b) Assess implementation progress in relation to annual programme and budgets (AWPB) and status of the activities at the time of completion;
- (c) Review the programme completion/endline surveys and ensure the adequacy of data and information required during the PCR processes focussing on institutional, targeting, and gender and social inclusion perspective; including linkages between quantitative and qualitative data;
- (d) Review the timely completion of activities and PCR processes including the settlement of finances;
- (e) Identify the areas of policy implications emanating from the implementation of programme activities to various levels of governments;
- (f) Highlight key actions or activities noting good practices and issues or challenges and outline their reasons or causes;
- (g) Highlight the key findings / observations on outcomes with clear evidence and make practical recommendations for future designs by GoN and IFAD; and (h) Any other tasks as agreed with the Country Director (CD).

17. The ML will be directly responsible for preparing the aide memoire, the complete project completion report (in the template required by IFAD, in ORMS) and the draft management letter in collaboration with other team members. Total input from the ML will be for 28 days (15 days in-country of which 11 days out to the field). **The entire package will be delivered to IFAD no later than 15 February 2020.**

Dr. Nara Hari Dhakal - Economic and Financial Specialist (EFS)

18. The EFS will assume overall responsibility to ensure that data and information required for assessing the programme's performance on economic and financial analysis, and the overall costs and benefits is prepared. This will be conducted in line with IFAD practices for economic and financial analysis (EFA) and best practices. In particular, the EFS will:

- (a) Examine the adequacy of data and information available required to analyse the performance from economic and financial perspective, including conduct of the ex-post EFA and estimation of the programme's Economic Rate of Return (ERR), showing actual costs by component/sub-component and an updated estimation of projected benefits, reflecting changes made during implementation, actual coverage and any changes in economic prices and market conditions;
- (b) Review data and information, on the NPV/ROR, efficiency on the use of resources along with the sensitivity analysis of performance indicators;
- (c) Review and validate the data and information contained in EFA included in the PCR report submitted by the MOALD; obtain missing data from the PMO, if any, to complete the EFA exercise; finalize the EFA aspects of the PCR report (PCR Appendix 10);
- (d) Prepare/consolidate required tables and information sheets for the assessment of programme's efficiency – cost and financing and partner's performance (from financing angle) focussing on the PCR appendices of actual project cost by financiers (appendix 7).
- (e) Contribute to the relevant sections of the aide memoire; and (f) Any other tasks as agreed with the ML or the CD.

19. Deliverables: The EFS will prepare and agree with the ML on the type of data and information required for the PCR. Information extracted through these documents will be fed into the relevant sections of the PCR Report.

The Specialist will provide inputs for 20 days (all in-country, 11 days out to the field and 5 days homebased) with all contributions as agreed with the ML.

Mr. Dilli Joshi, M&E and KM Specialist

20. The Monitoring & Evaluation (M&E) and Knowledge Management (KM) Specialist works in guidance of the ML closely with the other members of the team and the PMO staff responsible for M&E and KM. Specific responsibilities include:

- (a) Assess the level of adequacy of data and information contained in the M&E and MIS system considering the requirements for the PCR processes; identify gaps and suggest measures to mitigate the gaps to ensure that required data and information is available for PCR preparation;
- (b) Ensure consistency of data and information recorded in the project database with Farmers' Diary maintained by each member of the Production Organization (PO); carry out a few sample test during the field visit to ensure the level of accuracy;
- (c) Review and validate the data and information contained in the PCR report submitted by the government; extract/obtain missing data from the PMO, if any, to adequately supply the required data and information for the PRC exercise;
- (d) Engage with to the relevant staff members in consolidating the data and information required to assess the Programme's effectiveness on i) target and output delivery, ii) outcomes and impact, and iii) targeting and outreach;
- (e) Work closely with the ML in finalizing the PCR report by providing analytical assessment of results on the ground based on available primary and secondary information;
- (f) Prepare appendices for the PCR focussing on i) PCR rating matrix (appendix 3); ii) programme's logical framework (appendix 4) ; iii) actual physical progress table (appendix 8), and iv) RIMS data (appendix 9);
- (g) Summarize the key lessons and innovations from the implementation to fed into the future design of similar projects/programmes by the government and/or IFAD; and (h) Any other tasks as requested by the ML or the CD.

The M&E and KM Specialist will join the mission for 20 days (all days in-country with 11 days out to the field, 5 days home-based) with all contributions as agreed with the ML. The M&E and KM Specialist will remain available for any other tasks as assigned during the mission.

Mr. Bashu Aryal, Country Programme Officer, IFAD

21. The CPO will be responsible for the following:

- (a) Ensure all logistics for the mission including meetings with the federal and sub-national level governments and PMO in Kathmandu and in Butwal;
- (b) Support the mission team and the PMO to finalize the mission's plan and the working sessions with PMO;
- (c) Extend support to each mission members to finalize their contribution within the stipulated timeframe based on the institutional memory on implementation,
- (d) Lead the discussions in the meetings at various levels representing IFAD in absence of the CD,
- (e) Support the ML in preparing the in finalizing the various appendices; and
- (f) Ensure that a final workshop/wrap up meeting with the federal government in Kathmandu is organized.

The CPO will support the mission for the entire period. (all days in-country, 11 days out of Kathmandu).

Mr. Tarek Kotb, Country Director (CD)

20. The CD will have cross-cutting tasks:

- (a) Provide overall oversight and guidance to the mission and ensure compliance of all mission reports as per IFAD formats and requirements, and
- (b) Lead the discussions in the wrap-up meeting representing IFAD.

DOCUMENTATION

The following documentation will be made available to the mission team prior to the mission:

- (i) Programme Design Reports and Mid-Term Review Report
- (ii) Programme Loan Agreement, Amendments to the Loan Agreement and Agreed Minutes of Loan Negotiations
- (iii) All Supervision, Implementation Support Mission's Reports
- (iv) Studies and surveys reports as carried out by the Programme
- (v) Annual RIMS reports and Outcome Survey Reports
- (vi) All Annual Progress Reports
- (vii) LGS Data (the Historic transactions and Status of Funds by Category data)
- (viii) All financial reports including Audit Reports
- (ix) The Government's Project Completion Report
- (x) PCR Guidelines of October 2015
- (xi) IFAD Memo on Operational Procedures for Completion Reporting dated 11 Nov 2015.

MISSION SCHEDULE

Day/Date	Activity	Location
Sun, 12 January	Mission arrival at Kathmandu	Kathmandu
Mon, 13 Jan	Team meeting (morning), Meetings with the government at central level, departure to Butwal (afternoon), meeting with PMO, mission plan finalization	Kathmandu/Butwal
Tue-Thu, 14-16 Jan	Programme presentations, working session with PMO, report writing	Butwal
Fri-Sun, 17-19 Jan	Field visit to the districts, field data validation	Districts
Mon-Thu, 20-23 Jan	Working session with PMO, report writing	Butwal
Fri, 24 Jan	Pre-wrap up meeting with PMO, travel back to Kathmandu (morning), Aide Memoire distribution, report writing	Butwal/Kathmandu
Sat, 25 Jan	Report writing, preparation for wrap up/final workshop	Kathmandu
Sun, 26 Jan	Wrap up meeting/final workshop at central level, mission departure	Kathmandu/destination countries

Attachment 1: Main performance assessment questions

1. The project completion review team will seek to answer each of the following detailed questions, grouped according to the criteria to be used in the assessment. Obviously, the scope of coverage will depend upon the nature of the project and areas of performance assessment covered. So most project completion exercise will cover only a selected set of questions.

Project Performance

Project relevance

2. Broadly speaking, the mission will assess the extent to which project objectives were consistent with the priorities of the rural poor and their perception of their needs and potential; with the priorities and poverty alleviation policies and strategies of the country; and with IFAD's mandate and policies. More precisely, the mission will answer each of the following detailed questions:

- Did the project design focus on, and were its objectives consistent with, the needs and priorities of the rural poor? Was the design process participatory and did it take into account

the needs, potential, livelihoods, asset bases and development opportunities of the rural poor at the time of project design? Are these characteristics, constraints and opportunities still the same today?

- Were the approaches promoted consistent vis-à-vis the socio-politico-economic conditions at the time of project design and vis-à-vis prevailing environmental and climate conditions? Were project objectives, approaches and activities consistent with IFAD's objectives of increasing the assets and incomes of poor rural households, and improving their food security?
- Were project objectives realistic and consistent with national development plans, poverty reduction strategies, agriculture and rural development strategies and other sectoral priorities? In particular, was the project design aligned with *[INSERT NAME OF ANY SPECIFIC POLICY DOCUMENT THAT MAY BE RELEVANT]*? Are these documents still relevant today or were there important changes in the policy context?
- Were the project objectives consistent with IFAD's mandate, its *Strategic Framework* and with IFAD's country strategy as reflected in the COSOP? Were IFAD policy concerns (existing at the time of project's design or developed later during implementation) (as reflected in policies and strategies on targeting, innovation, rural finance, private sector etc.) adequately incorporated into project design?
- Did the Project Design Document include a well-defined, clearly articulated Logframe or Results' Framework? Were all identified activities and outputs consistent, and commensurate, for the attainment of proposed goal and objectives? Were external risks (or assumptions) clearly identified? Were the proposed indicators relevant and adequate to monitor project implementation and results?
- Were the initial implementation arrangements well defined and adequate to ensure a smooth, cost-efficient project implementation? Were there any major changes in these arrangements, and if so, were these changes appropriate and timely?
- Were there major changes in the external project environment (e.g. policies, socio-economic conditions, political changes, crisis, etc.) since the project was designed and implementation started? Were project objectives adjusted to reflect changing circumstances during implementation? Are initial (or revised) project objectives still valid?
- What were the main factors that contributed to a positive, or less positive, assessment of project relevance?

Project effectiveness

3. The mission will assess the extent to which the project's specific objectives were achieved in both quantitative and qualitative terms. This will involve the careful description of the main activities undertaken by the project since its start, as well as a thorough analysis of the results achieved at the output, outcome and impact levels. Variations between initial and actual targets will be highlighted and the external factors that had a bearing on project effectiveness will be explained. More precisely, the mission will answer the following questions:

- Were all activities implemented as planned? If not, what were the reasons? Were all expected outputs achieved in quantitative and qualitative terms? Did they lead to the intended outcomes and were those properly measured and documented? Are there significant discrepancies between original targets and actual achievements, and if so, what are the reasons?
- Did the project achieve its objectives?
- Was project implementation well monitored? Are all results at all levels properly measured, quantified and documented? Is this information reliable?
- Did all results meet expected quality standards? If not, what were the problems?
- Were all results achieved within the original timeframe and budget?
- Did the project provide all expected benefits to all intended target groups? Do results and achievements adequately fulfil the needs of these intended target groups?

- What are the external factors that facilitated, or constrained, output delivery and the achievement of project objective?
- What factors in project design and implementation account the most for the estimated results in terms of effectiveness?

Project efficiency

4. The mission will assess how economically project inputs and resources (funds, expertise, time, etc.) were converted into results. This analysis will involve a review of the following aspects:

Resources' use:

- What were the main expenditure patterns? Were financial and budgetary resources spent as initially anticipated? Were there deviations from original cost estimates and, if so, what were the reasons? Was the budget significantly amended in the course of implementation?
- Were there timely and adequate financing contributions from all project financiers, including in-kind contributions from beneficiaries?
- For the resources spent, was the number (and quality) of outputs optimal? Could the project have produced more with the same resources, or the same results with less money? Could other approaches have produced results more efficiently in terms of costs, time and resources?

Quality of project management:

- How well did the [*PROJECT MANAGEMENT UNIT OR PROJECT COORDINATION UNIT*] coordinate and manage project activities? Were implementation timetables adequately met? Was project management responsive to changes in the environment or the recommendations made during supervision missions of by the Project Steering Committee? Was the [*PCU/PMU*] adequately staffed with motivated staff members? How useful were the various project management tools (AWPB, Procurement Plan, M&E Plan) and the Management Information System (MIS) developed during implementation? Were these tools properly used by project management?
- Were there appropriate arrangements in place for sound financial management, flow of funds, financial record keeping and the timely preparation of financial reports? Were there any issues?
- How efficient was the project M&E or MIS systems in providing reliable, timely information on output delivery, outcomes and impact? Was M&E information adequately analysed and used by project management for planning and decision-making purposes?
- Was the Project Steering Committee useful and proactive to help resolve problems and guide project implementation?

Quality of IFAD supervision and implementation support (same guiding questions to be used for a cooperating institution if not supervised by IFAD):

- To what extent did the services and support provided by IFAD ensure a sound project design and an efficient project implementation? Did IFAD mobilize the adequate technical expertise and resources in project design and implementation?
- Did IFAD provide adequate support through direct supervision and/or country presence? Were supervision missions useful and timely? Did IFAD ensure pro-active problem identification, follow-up and resolution?
- How efficient was IFAD in handling loan administration, procurement reviews and AWPB reviews? Were there any delays in funds' transfers?
- Was IFAD proactively engaged in policy dialogue activities at different levels in order to ensure, inter alia, the replication and scaling-up of pro-poor innovations? Was IFAD active in creating effective partnerships?

Cost-benefits analysis:

- For each of the main project investments, what were: (a) the actual costs and value of inputs mobilized (*including capital costs, operation and maintenance costs, labor costs, taxes*); (b) the estimated economic benefits (*including revenues from sales, incomes, value of self-consumed production*); and (c) the estimated social benefits?
- What is the cost ratio of inputs to outputs and is it comparable to local, national or regional benchmarks? What are the loan costs per beneficiary? What are the mission's conclusions with regard to this costs-benefits analysis? What are the main internal or external factors that may have had a negative or positive impact on costs or benefits?
- Where available, how does the actual project internal rate of return (EIRR) compare with the estimated EIRR calculated during project design?

Sustainability

5. The mission will assess the likelihood that the benefits from project intervention will continue after project completion. It will also assess the likelihood that actual and anticipated results will be resilient to risks, including climate-related risks, beyond project life. The adequacy of the post-project strategy, as designed and/or implemented, will also be examined. More precisely, the mission will examine the following questions:

- Was an appropriate post-project strategy developed and implemented since project start-up?
- **Social sustainability (Empowerment):** Do project beneficiaries have the necessary capacities and skills, individually or collectively, to continue the approaches or manage the investments promoted by the project? Are these socially acceptable? Is there sufficient local ownership for these approaches or investments? Was there adequate beneficiary participation during project implementation? Is there interest and willingness, among concerned communities, to continue with promoted approaches or investments after project completion?
- **Economic and financial sustainability:** Do project investments generate sufficient cash flow and income to offset future investment and O&M costs? Are project investments economically and financially viable? If not, what are the constraints?
- **Technical sustainability:** Are the approaches promoted by the project viable from a technical point of view? Are spare parts for acquired or promoted machineries and equipment locally available? Do beneficiaries have the necessary technical capacities to operate and maintain the investments promoted by the project? Do they have access to adequate funds for operation and maintenance?
- **Institutional sustainability:** Are the institutions supported by the project self-sufficient and viable? Have operating capacities been created and/or reinforced in national and local partners? Are the new approaches or practices promoted by the project mainstreamed within normal government operations? Is there a clear indication of government commitment after the loan closing date in terms of follow-up actions, provision of O&M funds, etc.?
- **Environmental sustainability:** Are the approaches and investments promoted by the project environmentally friendly? Are they helping reduce the pressure on the natural resource base? Are they having any negative impact on the environment or the natural resource base? Did promoted techniques and approaches take into account climate change issues? Are they promoting adaptations to climate change? Can recurrent natural hazards endanger prospects of sustainability?
- **Climate change:** Are the agricultural approaches promoted by the project suitable in a context of a rapidly changing climate? How may changes in climatic conditions affect the sustainability of interventions in the long run? Which precursors are critical to achieve long-term impact?

Rural Poverty Impact

6. The impact of project interventions should be presented in quantitative and qualitative terms, using the standard IFAD's impact domain classification. The mission will examine in particular the following questions:

7. **Households' incomes and assets:** Did the project contribute to positive changes in households' assets? Did the composition of incomes change or was there a diversification in means of livelihood.

Did the project improve ownership, or security of access, to land, water or productive resources? Were there positive changes in households' assets, and if so, what were the main changes? Was there an increase in households' financial assets?

8. **Human and social capital and empowerment:** Did the project influence the knowledge and skills of the rural poor? Did the rural communities gain access to better health, education facilities, safe water sources and other social facilities? Did the project enhance social capital and cohesion in the communities? Did rural people's organisations and grassroots institutions change? Did the project affect the capacity of the rural poor to influence decision making and access to institutions (social services, local development actors, national authorities) either on an individual or collective basis? Did the project affect social capital, social cohesion and the self-help capacity of rural communities?

9. **Food security:** Did the project improve food availability, whether self-produced or purchased, to ensure a minimum necessary intake for all households members? Do project beneficiaries have an improved and more regular access to enough or more nutritious food? Is there a reduction in the occurrence, or duration, of lean periods? Did children's nutritional status change (stunting, wasting and underweight status)? To what extent did the rural poor improve their access to input and output markets that could help them enhance their productivity and access to food? To what extent were the rural poor able to overcome market volatility or climate changes to ensure year-round food security?

10. **Agricultural productivity:** Did the project contribute to increase agricultural, livestock and fish productivity, as measured in terms of cropping intensity, yields and land productivity? Are there changes in the levels of local production and crop diversification? Are farmers applying improved or more sustainable farming practices? Did the project ensure that smallholders benefited from increased agricultural production and were enabled to manage market fluctuations and changes in climatic or natural resources conditions?

11. **Institutions and policies:** Are there changes in the capacities of the various grassroots organizations supported during project implementation (such as Rural Producers' Groups, Interest Groups or Users' Associations)? Are there changes in the institutional capacities of the main institutions involved in project implementation? Are there changes in the quality or range of services delivered for the rural poor? Are there changes in local governance or in the behaviours of local institutions? Are there changes in the policy or institutional framework as a result of project-led policy dialogue activities (e.g. changes in the laws, statutes, rules, regulations, procedures, national quality standards or norms)?

Additional Evaluation Criteria

12. **Gender equity and women empowerment:** Did the project generate changes in gender roles or gender relations? Are there changes in women status at the community level (participation in local elections or decision-making processes, representation in rural producers' groups), at the household level (workload, nutrition status, women influence on decision-making) or the community level)? What is the impact of capacity-building activities on individual women or on Women Groups? Are there changes in the institutional or legal framework that were made in favour of women as a result of project policy dialogue activities?

13. **Access to markets:** Are there changes in farmers' physical access to markets (e.g. availability of roads and marketing outlets), in their access to market prices and information or in their bargaining power with traders? Did the project have an impact on the timely access to quality agricultural inputs (fertilizers, vaccines, seeds) and on the capacities of Producers/Marketing Groups?

14. **Innovation.** The mission will assess the extent to which project interventions have introduced and tested innovative approaches to rural poverty reduction. These are any processes, tools or practices that add value or solve a problem in new ways. More precisely, the mission will answer the following questions:

- Was the project designed specifically to test or lead to innovation, for example by piloting new concepts or technologies? Did the project test and introduce innovative ideas in the project target area? What are the characteristics of these innovations? Are these consistent with the IFAD definition of the concept? How did the innovation originate and was it adapted in any particular way during project design? Are these approaches truly innovative with regard to the local or national contexts?

- Were these innovative approaches carefully monitored and documented? Were these innovations discussed with the Government or other actors? Were these innovative approaches successful? Did these innovations address relevant needs of the rural poor and are these viable?
- Were these innovations adopted by the rural poor, local implementation partners, government entities or any other actors?

15. **Potential for Scaling up:** The mission will assess the extent to which some approaches, technologies or innovative features pilot-tested or successfully implemented by the project are likely to be up-scaled. It will also assess the likelihood that some project approaches may be replicated in other geographical areas. More precisely, the mission will examine the following aspects:

- How likely is it that the project - or some of its activities, approaches or innovative technologies - may be replicated in other localities or at the national level by the Government or other donors? Has any component or activity of the project already been replicated beyond the target area or target group?
- How proactive was project management, or other stakeholders, in discussing future up-scaling with the Government or other development partners? What are the prospects or obstacles?

16. **Environment and natural resource management:** Were the approaches to environment preservation and natural resources management appropriate to local circumstances and were they effective in addressing local problems? Are there positive or negative changes in the natural resources base (forests, marine/fisheries resources, pastureland, water resources) that may be attributable to project interventions? Did the project have positive or negative changes – intended or unintended - on the environment? Did it contribute to the protection or rehabilitation of natural and common property resources (land, water, forests and pastures)? Has the degree of environmental vulnerability changed?

17. **Adaptation to climate change:** Were the approaches for climate change adaptation promoted by the project appropriate to local circumstances and were they effective? Did the project manage to empower rural communities to cope with, mitigate or prevent the effects of climate change and natural disasters? Are farming communities more resilient to such disasters and are farming practices better adapted to climate change? Were the coping capacities of vulnerable natural systems restored?

18. **Targeting and outreach:** The mission will assess the extent to which project interventions have reached the intended target groups, that is the specific individuals or organizations for whose benefit specific interventions were initially designed and implemented. The mission will also assess the effectiveness of the project targeting strategy. More precisely, the mission will examine the following aspects:

- Did the project reach out to the expected number of beneficiaries in the manner intended? Did the project provide all anticipated benefits to the specific socio-economic groups identified in the Project Design Document? Were there deviations from initial outreach targets and if so, what were the reasons?
- Was outreach properly monitored in both quantitative (e.g. number of direct and indirect beneficiaries) and qualitative terms (e.g. beneficiaries' socio-economic profile)?
- Did the project implement a sound targeting strategy? Did the project regularly analyze the needs, potentials and priorities of intended target groups and the poverty dynamics in the project target area and developed specific outreach strategies accordingly?
- Were there measures taken to ensure that the poor and vulnerable groups would not be excluded from project implementation and would benefit from it; and that the non-poor would not capture project benefits?
- Did the project implement gender-sensitive implementation approaches? Did the project ensure equal participation of men and women in implementation? Were there specific

measures undertaken in order to promote women participation in project activities? Did the project's M&E system track gender-disaggregated data?

Partners Performance

Performance of implementation partners

19. The mission will assess the performance of IFAD and the government. These are the organizations or entities directly responsible for project implementation, for providing strategic guidance and oversight. More precisely, and in addition to determining if all implementation partners have adequately fulfilled their respective roles and responsibilities, the mission will examine the following points:

- Central Government agencies: Did the Executing Agency and Implementing Agency comply with the covenants of the loan agreement and the provisions of the Project Design Document? Were they proactive in supporting project implementation and identifying solutions to problems? Was the Project Steering Committee fulfilling its role adequately?
- IFAD: The rating measures the overall IFAD's performance while designing the project, supervising project implementation and providing implementation support. It also examines IFAD's performance for loan administration, procurement reviews, administering the project Grant/Loan Agreement or managing the MTR and/or PCR processes. It assesses the extent to which IFAD has mobilized adequate technical expertise and resources to support implementation effectively and if it has ensured pro-active problem identification and resolution.

Lessons learned

20. The mission will present the main lessons learned from project implementation, based on the analysis of what learning from experience may be applicable to a more generic situation. In so doing, the mission will refrain from exposing platitudes, keeping in mind the following definition of a lesson learned: *"knowledge or understandings gained by experience which may be positive, as in a successful experiment, or negative, as in a mishap or failure"*.

21. All lessons learnt presented should be significant in that they have a real or assumed impact on operations; valid in that they are factually and technically correct; and applicable in that they identify a specific design, process, or decision that reduces or eliminates the potential for failures and mishaps, or reinforces a positive result. 22. In order to identify these lessons learned, the mission may examine the following questions:

- What specific knowledge or lessons can we derive from project implementation that may be used in the future in similar, or different, contexts?
- What were the project strengths and its main weaknesses? What were the main opportunities, or threats, in the environment that have facilitated, or constrained, project implementation?
- With the benefits of hindsight, what are the things that should have been done differently? What are the specific dimensions of the project design that one should never repeat again in similar contexts or circumstances?
- What are the specific aspects of project implementation that will be worthwhile replicating in future interventions in the country, or elsewhere, because they were particularly interesting or successful? In the external context, what will be the important conditions required for similar interventions to lead to similar results elsewhere or in the future?

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 8: List of person met and mission's programme

Mission Dates: 12 - 26 January 2020
Document Date: 23/07/2020
Project No. 1100001602
Report No. 5446-NP
Loan ID 1000004340
DSF Grant ID 1000004341

Asia and the Pacific Division
Programme Management Department

This document will be publicly disclosed unless there is written dissent on its disclosure by the Borrower at the time of this document submission to IFAD or no later than the project closing date.

Appendix 8: List of person met and mission's programme

(i) Mission Itinerary

Date	Location	Description
12 January 2020	Kathmandu	Team arrival
13 January	Kathmandu and Butwal	Meeting Secretary Agriculture and Line Ministries, travel to PMU Butwal
14 -15 January	Butwal	Meeting PMO
16 January	Group 1 Argakhachi	Field visit to programme activities Gorusingha, Sandhikharka, Dhababang, Piple Neta
	Group 2 Puythan	
17 January	Group 1 Argakhachi	Field visit to programme activities Diverna, Kimdada and Sandhikarka
	Group 2 Puythan	
18 January	Group 1 Gulmi	Field visit to programme activities Tangas and Reshunga Napa 10
	Group 2	
19 January	Group 1 Gulmi return Butwal	Field visit to programme activities Majhuwa and Khairani
20 January	Butwal	Reviewing with PMO
21 January	Butwal	Reviewing with PMO
22 January	Butwal	Drafting presentation for Wrap up
23 January	Butwal	Wrap up with PMO
24 January	Travel by road to Kathmandu	
25 January	Kathmandu	Preparation for final workshop
26 January	Kathmandu	Final workshop
27 January	Kathmandu	Drafting Aide Memoire
28 January	Mission departure	

(ii) List of persons met

SN	Name	Designation	Related Organization
1	Dr. Yubak Dhoj GC	Secretary	MoALD, Kathmandu
2	Rajendra Bhari	Secretary	MoLMAC, Surkhet
3	Niru Dahal Pandey	Director General	Department of Agriculture, Kathmandu
4	Biju Kumar Shrestha	Joint Secretary	National Planning Commission, Kathmandu
5	Dr. Bansi Sharma	Director General	Department of Livestock Service, Kathmandu
6	Bashu Babu Aryal	Country Programme Officer	IFAD, Nepal

7	Dr. Hari Bahadur KC	Joint Secretary	MoALD, Kathmandu
8	Dr. Pradip Chandra Bhattarai	Senior Livestock Development Officer	MoALD, Kathmandu
9	Krishna Prasad Osti	Project Coordinator	ASHA Project, Kathmandu
10	Rudra Prasad Poudel	CLDO	Department of Livestock Service, Kathmandu
11	Dr. Lok Nath Paudel	Senior Livestock Development Officer	Department of Livestock Service, Kathmandu
12	Dr. Kiran Pandey	Livestock Development Officer	Department of Livestock Service, Kathmandu
13	Dr. Shivaram Koirala	CEO	SKBBL, Kathmandu
14	Shankar Sapkota	Senior Agriculture Economist	MoALD, Kathmandu
15	Baikuntha Adhikari	Joint Secretary	MoALD, Kathmandu
16	Dr. Shreeram Ghimire	Chief	AITC, Kathmandu
17	Dr. Ganga Dutta Acharya	Under Secretary	MoALD, Kathmandu
18	Yam Narayan Devkota	Director	Agri. Development Directorate, Butwal
19	Dr. Narahari Dhakal	Consultant	IFAD, Project Completion Review Mission
20	Dr. Shanta Karki	Chief	National Fruitcrop Development Centre, Kirtipur
21	Madan Thapa	Chief	SQCC, Kathmandu
22	Dr. Pradyumna Pandey	Senior M & E Officer	FANSEP, Kathmandu
23	Dilli Joshi	Consultant	IFAD, Project Completion Review Mission
24	Benu Prasad Parshai	Programme Coordinator	ASDP, Surket
25	Kaushal Kumar Poudel	Programme Manager	KUBK-ISFP, Butwal
26	David Doolan	Mission Leader	IFAD, Project Completion Review Mission
27	Binod Kumar Bhattarai	Senior Agriculture Economist	MoALD, Kathmandu

28	Sabnam Shivakoti	Joint Secretary	MoALD, Kathmandu
29	Dr. Sudir Thapa	DPM	KUBK-ISFP, Butwal
30	Dal Bahadur Khatri	Proprieter	Lekali Goat Firm, Pyuthan
31	Dipendra Keshari Neupane	Seed Specislist	Private seed inspector
32	Lilaram Poudel	Seed Coordinator	KUBK-ISFP, Butwal
33	Khusbu Chaudhary	Officer	MoALD, Kathmandu
34	Narjan Shrestha	Proprieter	Ishwor Dairy, Gulmi
35	Lal Prasad Acharya	Representative	SEAN
36	Prakash Chandra Tara	Consultant	RIMC, Nepal
37	Hum Kanta Pandey	Livestock Development Officer	KUBK-ISFP, Butwal
38	Nirmal Kumar Acharya	Chairperson	Rukumeli Agro. Seed Center, Dang
39	Kishor Kafle	PM & E officer	Heifer, Nepal
40	Hari Krishna Upreti	Director	NARC, Kathmandu
41	Govinda Lal Karna	Project Coordinator	KUBK-SKBBL, Butwal
42	Indra Raj Pandey	Cairperson	Nepal Horticulture Society
43	Prakash Acharya	Senior Crop Deve. Officer	DoA, Kathmandu
44	Dr. Hari Sharma Neupane	CEO	AEC, Kathmandu
45	Basanta Bhattarai	Account Officer	KUBK-ISFP, Butwal
46	Madan Gautam	Accountant	KUBK-ISFP, Butwal
47	Sisir Bhandari	Technical Officer	MoALD, Kathmandu
48	Abhinash Poudel	Officer	NACCFL, Kathmandu
49	Gita KC GM	Chairperson	SFACL,Bijuwar Pyuthan
50	Dr. Prakash Raj Bista	Senior Agri. Officer	ASDP, Surket
51	Dr. Dinesh Parajuly	Project Coordinator	AEC/FNCCI
52	Maulik Karki	Computer Operator	KUBK-ISFP, Butwal

53	Mina Pokhrel	DGM	NACCFL, Kathmandu
54	Bhim Neure	Technical Director	Pancha Sakti Seed Company, Dhangadi
55	Chiranjibi Adhikari	Agri.Officer	FANSEP, Kathmandu
56	Ganga Pokhrel	Crop Development Officer	KUBK-ISFP, Liasion office
57	Pramod Adhikari	Computer Operator	KUBK-ISFP, Butwal
58	Shivanandan Prasad Shah	Project Coordinator	PPCK-AMIS
59	Gopal Bashyal	Cairperson	Boer Breeder Herd , Diverna
60	Ishwor Barshila	Agriculture Economist	MoALD, Kathmandu
61	Dilliram Sedhai	Project Coordinator	NLSIP, Kathmandu
62	Nirmal Regmi	Crop Development Officer	KUBK-ISFP, Liasion office
63	Subhakala Nepali	Cairperson	Bhujunge Goat Rering FG, Arghakhanchi
64	Santosh Adhikari	Rural Finance Specialist	RERP, Itahari
65	Purna Chemjong	Consultant	RIMC, Nepal
66	Tek Bahadur Year	Veterinary Officer	MoALD, Kathmandu
67	Purna bahadur Budha	Veterinary Officer	MoALD, Kathmandu
68	Toya Nath Joshi	Plant Protection Officer	MoALD, Kathmandu
69	Srijana Marasini	Crop Development Officer	DoA, Kathmandu
70	Sagar Dahal	FMS	MCA, Nepal
71	Subash Raj Upadhaya	Cairperson	Lumbini Seed Company, Rupandei
72	Sudip Regmi	Seed Component Officer	KUBK-ISFP, Butwal
73	Krisna Prasad Paudel	M & E/ KM Officer	KUBK-ISFP, Butwal
74	Shankar Aryal	FMS	KUBK-ISFP, Butwal
75	Bharat Bahhadur Acharya	Senior Horti. Dev. Officer	NCPVSD, Kirtipur
76	Bishnu Magrati	Planning Officer	KUBK-ISFP, Butwal
77	Udaya Bahadur Poudyal	GESI Advisor	KUBK-ISFP, Butwal

78	Sujan Piya	Program Dev. Specialist	USAID
79	Krishna Bahadur KC	Agri. Officer	MoALD, Kathmandu
80	Ghuran Thakur	Consultant	ADBL, Kathmandu
81	Bina Sharma	Director	ADBL, Kathmandu
82	Shiva Hari KC	Manager	SKBBL, Kathmandu
83	Samjana Koirala	Agri. Officer	ASDP, Surket
84	Ujjawala Sahu Shrestha	Crop Development Officer	DoA, Kathmandu
85	Pritam Kumar KC	Agri. Tecnician	Konjusom RM, Lalitpur
86	Baikuntha Bhandari	Journalist	Agri. Online News
87	Surendra Subedi	Plant Protection Officer	MoALD, Kathmandu
88	Naba Raj Gautam	Section Officer	MoALD, Kathmandu
89	Narayan Ghimire	Proprieter	Kisan Dairy Udhog, Pyuthan
90	Hira Lal Yogi	Secretary	Monaris seed potato Prod. Group Salyan
91	Chitra Sharma	Secretary	Khadyanna Biu Utpadan FG, Rukum
92	Dayaram Bashyal	Agri. Tecnician	KUBK-ISFP, Butwal
93	Kabir Kumar Karki	Admin Assistant	KUBK-ISFP, Butwal
94	Roshna Shrestha	MIS Specialist	KUBK-ISFP, Butwal
95	Sushila Pokhrel	Computer Operator	KUBK-ISFP, Butwal
96	Anup Nainabasti	M & E Officer	KUBK-ISFP, Butwal
97	Suresh Parajuly	Admin Assistant	KUBK-ISFP, Butwal
98	Dev Raj Gauli	Reporter	NTV, Agri. Programme
99	Hridaya Narayan Tharu	Procurement Manager	KUBK-ISFP, Butwal

1) List of Participants during Mission field visit: Arghakhanchi and Gulmi

S.No.	Name	Designation	Organization
1	David Doolan	Mission Team Lead	IFAD
2	Kaushal Kumar Poudel	Program Manager	KUBK,PMO
3	Dilli Joshi	M & E Specialist	IFAD,Rome
4	Khim Bahadur Kunwar	Under Secretary	Ministry of Finance
5	Shankar Sapkota	Senior Agi-Economist	MoALD
6	Buddhi Ghimire	Senior Agi-Economist	DOA,P5
7	Namdev Uppadhaya	Scientist-SI	NARC,Plaza
8	Humakanta Pandey	Livestock Officer	KUBK,PMO
9	Govinda Lal Karna	Project Coordinator	SKBBL
10	Krishna Poudel	M & E, K&M Officer	KUBK,PMO
11	Matibar Yadav	Officer	MoLMAC,P5
12	Pitambar Sharma	Agriculture Officer	
13	Thakur B.K.	Deputi Mayor	Arghakhanchi Municipality of Sandhikhark
14	Yubraj Shrestha	Chairman	
15	Buddiram Bhattarai	Senior Agriculture Officer	Vegetable and goat zones arghakhanchi
16	Chaturbhuj Chaudhary	Crop Development Officer	Agricultural Knowledge Center Arghakhanchi
17	Thir Lal Gaire	Agriculture Officer	Vegetable Zone Arghakhanchi
18	Narayan Bhusal	Office 6th Level	Agricultural Knowledge Center Arghakhanchi
19	Bishnu Prasad Poudel	Veterinarian	
20	Narayan Khanal	Officer 6th Level	Animal Services Branch Arghakhanchi

21	Dr.Bijay Ghimire	Livestock Coordinator	KUBK,PIU
22	Hira Sen	Seed Coordinator	KUBK,PIU
23	Anil Nepali	Joint Secretary	Journalists
24	Parabata Poudel	Account & MIS	NACCFL
25	Bisanu Khadka	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
26	Basnta Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
27	Pipala Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
28	Kamala Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
29	Nirmala Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
30	Sarita Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
31	Yemkala Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
32	Madhu Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
33	Sharada Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
34	Rumkala Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
35	Paba Kala Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
36	Sunita Bhata	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
37	Rita Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
38	Harikala Banjade	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality

			2 Arghakhanchi
39	Sima Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
40	Chandra Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
41	Bhagabati Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
42	Putala Raut	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
43	Gita Raut	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
44	Mana Bhusal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
45	Sarita Bika	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
46	Krishna Kharti	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
47	Birendra Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
48	Jamuna Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
49	Chhamkala Bhat	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
50	Basanta Khanal	Member	Krishi Tewa Krishak Samuha, Bhumikasthan Municipality 2 Arghakhanchi
51	Chiran B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
52	Baikuntha Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
53	Humakanta Poudel	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
54	Dhankala Sunar	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi

55	Tara Bika	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
56	Anil B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
57	Bisni B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
58	Bisnu Bhatrai	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
59	Jhamindra Nepali	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
60	Ganpati Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
61	Ram Prasad Khanal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
62	Jib Narayan Pujali	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
63	Mohan Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
64	Basanta B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
65	Santa B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
66	Gopal Khanal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
67	Keshav Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
68	Kim Bahadur Raut	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
69	Narayan Khanal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
70	Bisnu Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
71	Basanta Chudali	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality

			2 Arghakhanchi
72	Sabitra Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
73	Janaka Bhausal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
74	Khageshor Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
75	Bhubannda Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
76	Parbat B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
77	Govinda Poudel	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
78	Amrita Chudali	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
79	Tej Bahadur	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
80	Khun Bahadur B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
81	Uma Bahadur B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
82	Min Bahadur Sunar	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
83	Keshav Prasad Bhusal	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
84	Shanta B.K.	Member	Pragatishil Multipalier Herd, Bhumikasthan Municipality 2 Arghakhanchi
85	Abinash Poudel	Account & MIS	NACCFL
86	Dhurba Raj Acharya	Ward Chairpersons	Sandhikharka Municipality 11 Arghakhanchi
87	Gopal Basyal	Chairman	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
88	Bela Kumari Poudel	Vioce Chairpersons	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
89	Yam Bahadur Pandey	Secretary	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11

90	Bishnu Prasad Acharya	Treasurer	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
91	Kashiram Oli	Technician	KUBK /PIU
92	Resauraj Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
93	Piskarnath Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
94	Padam Prasad Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
95	Kamala Chudali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
96	Pashupati Nepali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
97	Sarswata Nepali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
98	Bhoj Bahadur Chudali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
99	Khadak Bahadur Pandey	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
100	Roma Nepali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
101	Sirjana Nepali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
102	Khimlal Pandey	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
103	Ganesh Sejwal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
104	Gopal Bhusal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
105	Indu Basyal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
106	Keshar Kunwar	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
107	Gopal Bhusal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
108	Omlal Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
109	Rom Bahadur Nepali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
110	Nirmala Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
111	Judda Bahadur Nepali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
112	Chintakala Chudali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11

113	Geeta Bhusal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
114	Kamala Chudali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
115	Goma Chudali	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
116	Bimala Khanal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
117	Laxmi Bhusal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
118	Parbati Khanal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
119	Bishnu Prasad Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
120	Thaneshwar Bhusal	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
121	Hari Bahadur Pandey	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
122	Dinanath Acharya	Member	Jalkada Boer Breeder Herd,Sandhikhara Municipality 11
123	Manisha Bhusal	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
124	Saroj Bhusal	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
125	Buddi Bhusal	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
126	Baburam Bhusal	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
127	Bishnu Marasini	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
128	Giri Prasad Sapkota	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
129	Bishnu Bhakta Rana	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
130	Ridma Bhusal	Member	Sangam Taja Tarkari Phalphul Utpadan Krishak Samuha, Sandhikharka Municipality 8
131	Kalpa Banjade	Vioce Chairpersons	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
132	Mina Khatri	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5

133	Tara Bhusal	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
134	Nirmala Pariyar	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
135	Tara Bhusal	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
136	Santakala Rana	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
137	Sita B.K.	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
138	Laxmi B.K.	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
139	Ramkala Khatri	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
140	Hemkala Arjel	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
141	Kamala Panthi	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
142	Goma Poudel	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
143	Kamala Banjade	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
144	Umkala Banjade	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
145	Gun Kumari Banjade	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
146	Tej Kumari Banjade	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
147	Uma Thapa	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
148	Basanta B.K.	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
149	Niru Rana	Member	Kimdada Small Farmer Cooperative , Sandhikharka

			Municipality 5
150	Rita Gharti Magar	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
151	Parbata Marasini	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
152	Sharda Pandey Oli	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
153	Netra Prasad Parajuli	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
154	Shagila Bhusal	Manager	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
155	Pooja Bhattarai Oli	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
156	Sabitra Banjade	Member	Kimdada Small Farmer Cooperative , Sandhikharka Municipality 5
157	Khadga Samyuhang	DSC	KUBK /PIU Gulmi
158	Jiwan Mishra	LGA	KUBK /PIU Gulmi
159	Shambhu Pandey	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
160	Homraj Khatri	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
161	Ram Lamsal	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
162	Ram Chandra Gyawali	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
163	Radha Pandey	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
164	Durga Devi Pandey	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
165	Aroja Pandey	Member	Siddha Baba Gaushala Farm, Municipality 7, Gulmi
166	Bal Krishna Bhandrai	Member	New Resunga Dairy, Resunga Municipality 1, Gulmi
167	Sita Bhandari	Member	New Resunga Dairy, Resunga Municipality 1, Gulmi
168	Hom Raj Khatri	Member	New Resunga Dairy, Resunga Municipality 1, Gulmi
169	Gita Basnet	Member	Simichour SFACL,Resunga Municipality, Gulmi
170	Kamala Saru	Member	Simichour SFACL,Resunga Municipality, Gulmi

171	Bishnu Kunwar	Member	Simichour SFACL, Resunga Municipality, Gulmi
172	Basanti Bucha	Member	Simichour SFACL, Resunga Municipality, Gulmi
173	Yasodha Aryal	Member	Simichour SFACL, Resunga Municipality, Gulmi
174	Laxmi Bhandari	Member	Simichour SFACL, Resunga Municipality, Gulmi
175	Radhika Pandey	Member	Simichour SFACL, Resunga Municipality, Gulmi
176	Laxmi Aryal	Member	Simichour SFACL, Resunga Municipality, Gulmi
177	Jamuna Ghimire	Member	Simichour SFACL, Resunga Municipality, Gulmi
178	Krishna Thapa	Member	Simichour SFACL, Resunga Municipality, Gulmi
179	Hari Prasad Pandey	Chairman	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
180	Nir Bahadur Thapa	Vice Chairman	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
181	Krishna Prasad Aryal	Manager	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
182	Maya Marasini	Member	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
183	Lal Kumari Basnet	Member	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
184	Dolraj Panthi	Secretary	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
185	Nabin Aryal	Member	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
186	Bhojendra Bahadur Pandey	Treasurer	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
187	Lal mani Pandey	Member	Malika Agriculture Cooperative, Resunga Municipality 10, Gulmi
188	Dilliraj Gautam	Chairman	Riverside Farmers Group, Gulmi Durbar Rural Municipality, 1 Gulmi
189	Krishna Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality, 1 Gulmi
190	Keshav Bhandari	Member	Riverside Farmers Group, Gulmi Durbar Rural

			Municipality,1 Gulmi
191	Saroj Bhandari	Secretary	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
192	Kapil Bhandari	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
193	Anil Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
194	Madhav Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
195	Sarswati Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
196	Sima Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
197	Nirmala Gautam	Voce Chairman	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
198	Mamata Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
199	Hina Rana	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
200	Eyu Bahadur Rana	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
201	Sarswati Rana	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
202	Janga Bahadur Rana	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
203	Man Maya Rana	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
204	Srijana Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
205	Suresh Kandel	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
206	Bishnu Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi

207	Laxman Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
208	Shiv Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
209	Shivalal Shrestha	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
210	Krishna Prasad Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
211	Deepak Gautam	Member	Riverside Farmers Group, Gulmi Durbar Rural Municipality,1 Gulmi
212	Devkala Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
213	Tika Dhakal	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
214	Basanti Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
215	Parbati Bhusal	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
216	Kamala Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
217	Dev Dhakal	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
218	Karuna Dhakal	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
219	Mani Gaire	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
220	Kunta Devi Neupane	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
221	Shanti Devi Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
222	Gyankala Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
223	Ganga Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
224	Namkala Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
225	Sangita Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
226	Krishnakala Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
227	Sharmila Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
228	Gita Shrestha	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
229	Sita Dhakal	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi

230	Ishwara Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
231	Basundhara Dhakal	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
232	Keshara Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
233	Manakala Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
234	Tulasi Bhanadari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
235	Bishnu Shrestha	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
236	Mani Devi Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
237	Manrupa Neupane	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
238	Pooja Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
239	Parbati Gautam	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
240	Mithu Gautam	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
241	Sita Gautam	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
242	Purnakala Shrestha	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi
243	Pharendra Bhandari	Member	Johang SFACL,Satyawati Rural Municipality 6,Gulmi

2) List of Participants during Mission field visit: Pyuthan, Rolpa and Arghakhanchi

S.No.	Name	Title	Organization
1	Mr. Bashu Aryal	Country Programme Officer	IFAD
2	Dr. Narahari Dhakal	Economic and financial expert	IFAD
3	Mr. Laxmi Kharel	Senior PPO	SQCC
4	Mr. Lila Ram Poudel	Seed Coordinator	KUBK
5	Mr. TN Joshi	Agriculture Officer	MoALD
6	Jeeblal Basyal	Lead Trainer	SKBBL
7	Mr. Anup Nainabasti	M&E Officer	KUBK
8	Mr. Abinash Poudel	Account Assistant	NACCFL

9	Raj Bahadur Budha	Chief	District Coordination Committee Rolpa
10	Prem K.C.	Mayor	Rolpa Municipality
11	Karmalal Pariyar	Member	District Coordination Committee Rolpa
12	Keshav Kumar Acharya	Vice Chairperson	DCCI, Rolpa
13	Chhabilal Gharti Magar	Officer	AKC
14	Purna Prasad Timilsina	Technical assistant	Agricultural Knowledge Center
15	Krishna Bahadur Nagarkoti	Livestock Coordinator	KUBK Rolpa
16	Bijay Poudel	Seed Coordinator	KUBK Rolpa
17	Dipes Mahara	Office Assistant	
18	Bharat Gautam	Livestock Officer	NLBO
19	Abinash Ghimire	Account Assistant	NACCFL
20	Padam Bahadur Khadka	Seed Technician	KUBK-PIU
21	Bijaya Kattel	Seed Technician	KUBK-PIU
22	Tirtha Raj Poudel	Chairman	Prakriti Krishak Samuha
23	Sharda Raj Poudel	Secretary	Prakriti Krishak Samuha
24	Hemlal Bhandari	Member	Prakriti Krishak Samuha
25	Ajit Poudel	Member	Prakriti Krishak Samuha
26	Ashish Poudel	Member	Prakriti Krishak Samuha
27	Mukunda Raj Bhatta	Member	Prakriti Krishak Samuha
28	Rajendra Poudel	Member	Prakriti Krishak Samuha
29	Ambika Acharya	Member	Prakriti Krishak Samuha
30	Madhava Rijal	Member	Prakriti Krishak Samuha
31	Shova Poudel	Member	Prakriti Krishak Samuha
32	Narayan Poudel	Member	Prakriti Krishak Samuha
33	Shankar Shrestha	Livestock Tenic	KUBK PIU Pyuthan

34	Sharmila Rawat	Chairman	Vijayanagar Women Small Farmer Agricultural Cooperative
35	Narayani Pokharel	Manager	Vijayanagar Women Small Farmer Agricultural Cooperative
36	Lekha Bhandari	Assistant manager	Vijayanagar Women Small Farmer Agricultural Cooperative
37	Dilip K.M.	Advisory member	Vijayanagar Women Small Farmer Agricultural Cooperative
38	Buddiram Bhusal	Advisory member	Vijayanagar Women Small Farmer Agricultural Cooperative
39	Lok Raj Pokharel	Advisory member	Vijayanagar Women Small Farmer Agricultural Cooperative
40	Gita Bista	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
41	Rekha Khatri	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
42	Jalpa Devi Poudel	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
43	Nirmala Thapa	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
44	Uma Poudel	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
45	Laxmi Khadka	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
46	Tika Poudel	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
47	Ramba Khadka	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
48	Sakuntala Sigdel	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
49	Renuka Sunar	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
50	Bishnu Gautam	Member	Vijayanagar Women Small Farmer

			Agricultural Cooperative
51	Laxmi Nepali	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
52	Bhubaneshwar Bhusal	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
53	Harikala Bista	Member	Vijayanagar Women Small Farmer Agricultural Cooperative
54	Dipendra Shahi	Helper	Kisan Dairy
55	Shova Ghimire	Manager	Kisan Dairy
56	Narayan Ghimire	Proprietor	Kisan Dairy
57	Bhumika Ghale	Accounting Committee Member	Sirjansil Women Agricultural Cooperative Limited
58	Tila Gurung	Member	Sirjansil Women Agricultural Cooperative Limited
59	Anita Gurung	Member	Sirjansil Women Agricultural Cooperative Limited
60	Sabina Gurung	Member	Sirjansil Women Agricultural Cooperative Limited
61	Manju Ghale	Loan Committee Member	Sirjansil Women Agricultural Cooperative Limited
62	Jokhmaya Gurung	Member	Sirjansil Women Agricultural Cooperative Limited
63	Nima Ghale	Member	Sirjansil Women Agricultural Cooperative Limited
64	Amrit Gurung	Treasurer	Sirjansil Women Agricultural Cooperative Limited
65	Shanti Gurung	Loan Committee Member	Sirjansil Women Agricultural Cooperative Limited
66	Tilsari Gurung	Member	Sirjansil Women Agricultural Cooperative Limited
67	Tirsana Ghale	Member	Sirjansil Women Agricultural Cooperative Limited

68	Devi Gurung	Secretary	Sirjansil Women Agricultural Cooperative Limited
69	Jim Kumari Ghale	Member	Sirjansil Women Agricultural Cooperative Limited
70	Kali Chhotane	Vioce Chairpersons	Sirjansil Women Agricultural Cooperative Limited
71	Hira Ghale	Member	Sirjansil Women Agricultural Cooperative Limited
72	Khusmali Pun	Chairman	Pragatishil Women Agricultural Cooperative Limited
73	Radha Pun	Secretary	Pragatishil Women Agricultural Cooperative Limited
74	Khagisara Pun	Member	Pragatishil Women Agricultural Cooperative Limited
75	Bhumi Budha	Member	Pragatishil Women Agricultural Cooperative Limited
76	Gawansari Gharti	Member	Pragatishil Women Agricultural Cooperative Limited
77	Padama Pun	Member	Pragatishil Women Agricultural Cooperative Limited
78	Chameli Pun	Member	Pragatishil Women Agricultural Cooperative Limited
79	Gaina Pun	Member	Pragatishil Women Agricultural Cooperative Limited
80	Bhanmati Pun	Member	Pragatishil Women Agricultural Cooperative Limited
81	Man Maya Pun	Member	Pragatishil Women Agricultural Cooperative Limited
82	Naunali Gharti	Member	Kotgaun Multiplier Herd
83	Purnamali Gharti	Member	Kotgaun Multiplier Herd
84	Pinsari Gharti	Member	Kotgaun Multiplier Herd
85	Aaitamali Gharti	Member	Kotgaun Multiplier Herd

86	Amrita Khadka	Member	Kotgaun Multiplier Herd
87	Sharda Gharta Magar	Member	Kotgaun Multiplier Herd
88	Saro Khatri	Member	Kotgaun Multiplier Herd
89	Dilu Gharti	Member	Kotgaun Multiplier Herd
90	Pun Kumari Pun	Member	Kotgaun Multiplier Herd
91	Dali B.K.	Member	Kotgaun Multiplier Herd
92	Birmali B.K.	Member	Kotgaun Multiplier Herd
93	Chandra Kala Khatri	Member	Kotgaun Multiplier Herd
94	Rati B.K.	Chairman	Kotgaun Multiplier Herd
95	Krishna Mahara	Member	Kotgaun Multiplier Herd
96	Manbir Khadka	Member	Kotgaun Multiplier Herd
97	Khadg Shingh Khatri	Chairman	Kotgaun Multiplier Herd
98	Radha Krishna Sharma	Program Officer	HEIFER INT,Nepal
99	Hari Bahadur Khadka	EPCDC	EPCDC
100	Gita K.C.	Chairman	Jaluke Co-Cooperative
101	Seema Shrestha	Member	Jaluke Co-Cooperative
102	Uma Roka	Member	Jaluke Co-Cooperative
103	Hira Rana	Member	Jaluke Co-Cooperative
104	Sangita Darlami	Member	Jaluke Co-Cooperative
105	Chuma Palli	Member	Jaluke Co-Cooperative
106	Jiri Darlami	Member	Jaluke Co-Cooperative
107	Tali Kumari Ghartimagar	Member	Jaluke Co-Cooperative
108	Uma Rana	Member	Jaluke Co-Cooperative
109	Nami Sara Gharti	Member	Jaluke Co-Cooperative
110	Dhuma Rana	Member	Jaluke Co-Cooperative
111	Shanti Darlami	Member	Jaluke Co-Cooperative

112	Lami Sara Khanal	Member	Jaluke Co-Cooperative
113	Sumitra Gharti	Member	Jaluke Co-Cooperative
114	Thamisara Aale	Member	Jaluke Co-Cooperative
115	Kabita Aale	Member	Jaluke Co-Cooperative
116	Numi Sara Rakhal	Member	Jaluke Co-Cooperative
117	Kesari Aale	Member	Jaluke Co-Cooperative
118	Hum Kala Rakhal	Member	Jaluke Co-Cooperative
119	Khimi Sara Aale	Member	Jaluke Co-Cooperative

Nepal

Improved Seed for Farmers Programme (Kisankalagi Unnat Biu-Bijan Karyakram) Project Completion Report

Appendix 9: Final wrap-up/stakeholder workshop findings

Mission Dates: 12 - 26 January 2020
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Appendix 9: Final wrap-up/stakeholder workshop findings

The final wrap-up meeting *cum* completion workshop of the KUBK-ISFP Programme Completion Review mission was organized on 26 January 2020 in Hotel Himalaya, Lalitpur to validate the PCR Mission's findings with the stakeholders. Earlier, a Project Completion Review (PCR) Mission was fielded in mid-January 2020. In addition to interacting with the programme team, the Mission verified data from the Programme Management Office based Management Information System (MIS) and conducted interactions during field visits to Arghakanchi, Gulmi, Pyuthan, and Rolpa districts.

The Chief Guest of the workshop was Dr. Yubak Dhoj GC, Secretary (Agriculture), Ministry of Agriculture and Livestock Development (MoALD) and Special Guests were Mr Biju Kumar Shrestha, Joint Secretary, National Planning Commission, and Mr Bashu Aryal, Country Programme Officer, International Fund for Agricultural Development (IFAD). Representatives from Government of Nepal, *viz.* Ministry of Agriculture and Livestock Development and its Departments - Department of Agriculture Development and Department of Livestock Development; implementing partners -- Heifer International Nepal, Agro Enterprise Centre, Sana Kisan Bikas Laghubitta Bittiya Sanstha Limited and Nepal Agriculture Cooperative Central Federation Limited; beneficiaries; representatives of other IFAD financed operations; project staff; and PCR mission members attended the workshop. A list of participants is given below.

Mr Kaushal Kumar Paudel, Programme Manager, KUBK-ISFP welcoming the Chairperson, special guests, and participants highlighted activities performed by the programme between 2012 to 2019, success, and challenges faced during its implementation. He expressed his gratitude to IFAD, all IFAD mission members, MoALD, PSC members, implementing partners, stakeholders, and beneficiaries for their support during the programme implementation. He also appreciated for the efforts of the entire KUBK-ISFP team for their admirable job during the in project implementation.

In his inaugural speech, Chief Guest Dr Yubak Dhoj GC expressed his happiness for KUBK-ISFP completing with high level of programme outcomes and developing successful model of seed production and Boer goat breed improvement. He opined though having high cost of production, sensitive and time taking business the programme could produce tons of seed in villages making the communities realise in producing variety of seeds on their farms. Dr Yubak Dhoj GC emphasised on the programme linking the seed business with grant, credit, technical support and marketing. Agriculture being a subsidized sector in Nepal, the programme focused on policy level support for seed production. This, he reiterated is a take home message to the National Planning Commission. He further emphasised on all government farms on producing seed as per the requirement of the country. Dr Yubak Dhoj GC opined that there lies challenges of in-breeding in Boer genetics for which he urged NARC, Provincial, and local governments to provide required support to the farmers in future. Due to his busy schedule, Dr. Yubak Dhoj GC handed over the responsibility of Chairperson to Dr Hari Kumar KC, Joint Secretary of MoALD.

Special Guest Mr Biju Kumar Shrestha expressed his satisfaction on the progress of the programme with 21% internal rate of return (IRR) and high beneficiary contribution. He urged on institutionalising and up-scaling progress made by the programme. Mr Shrestha further emphasised on connecting the sub-projects with banks and insurance companies for sustainability. He felt there is still need of programmes on agriculture and livestock in the country and requested IFAD to consider funding new project like KUBK-ISFP in future. He also advised to make participation of local level elected representative in such workshop in future.

Mr David Doolan, PCR Mission Leader made a presentation on the programme achievements against its performance indicators and highlighted on major outputs, outcomes and impact level data. He presented the key lessons learnt and recommendations. Mr Doolan inferred that the programme has made commendable progress, overcoming several delays and impediments in the early years and contributed substantially to the goal of KUBK-ISFP -- *promoting inclusive, competitive and sustainable agricultural growth within the target area such as to contribute to overall economic growth.*

Some beneficiaries participating in the workshop were asked to share their experiences. Representatives from direct beneficiaries -- Ms Hira Chand, a seed producer farmer from Salyan; Mr Gopal Bashyal, a Boer breeding farmer from Arghakanchi; Ms Gita KC GM, Chairperson of a SFACL

in Pyuthan; and Mr Subash Upadhaya, Chairperson of Lumbini Seed Company expressed their views on KUBK-ISFP and praised the programme and appreciated for its contribution. They also urged for continuous support from different tiers of the Government in future.

Mr Bashu Aryal from IFAD Nepal Office thanked to all concerned organisations and government agencies associated with KUBK-ISFP. Mr Aryal shared his observations on the programme and made suggestions as not to implement cereal and vegetable seed production together as vegetable seed production has high comparative advantage. He also opined that agricultural extension system should be different for seed and grain production. Observing decreasing trend on the seed production, he was sceptical on sustainability of this component. He urged the Government to bring forth a goat breeding policy which is essential so is the certification system in Boer and its different blood level.

With one of the prerequisites to get participant's assessment on the programme, KUBK-ISFP organised many local level workshops and two province level workshops closer to the Programme Completion Date. As a continuation, the central level sharing workshop was also the attendees were divided into five groups and were make their assessments of the evaluation criteria – relevancy, effectiveness, efficiency, impact, and sustainability which were coupled with key lessons learnt, partners' performance, scaling up, targeting, and innovation respectively. A set of question was given to each group and was requested to evaluate the project. All groups expressed their views that the programme has contributed to the livelihoods to mid-hill farmers.

Dr. Hari Kumar KC from the Chair for his closing remarks recalled on the contribution of the programme and committed to take up the KUBK-ISFP model in future ministry projects. He opined that there is high potential of seed sector and Boer goat breeding model employed by the programme. He also appreciated for a promising achievement of establishment of 75 SFACLs with over 90 % lending in agricultural sector and NRs. 800 million soft loan to SFACL which he cautioned of managing properly with the closure of the programme.

List of participants

SN	Name of Participant	Designation	Organisation
1	Dr. Yubak Dhoj GC	Secretary	MoALD, Kathmandu
2	Rajendra Bhari	Secretary	MoLMAC, Surkhet
3	Niru Dahal Pandey	Director General	Department of Agriculture, Kathmandu
4	Biju Kumar Shrestha	Joint Secretary	National Planning Commission, Kathmandu
5	Dr. Bansi Sharma	Director General	Department of Livestock Service, Kathmandu
6	Bashu Babu Aryal	Country Programme Officer	IFAD, Nepal
7	Dr. Hari Bahadur KC	Joint Secretary	MoALD, Kathmandu

SN	Name of Participant	Designation	Organisation
8	Dr. Pradip Chandra Bhattarai	Senior Livestock Development Officer	MoALD, Kathmandu
9	Krishna Prasad Osti	Project Coordinator	ASHA Project, Kathmandu
10	Rudra Prasad Poudel	CLDO	Department of Livestock Service, Kathmandu
11	Dr. Lok Nath Paudel	Senior Livestock Development Officer	Department of Livestock Service, Kathmandu
12	Dr. Kiran Pandey	Livestock Development Officer	Department of Livestock Service, Kathmandu
13	Dr. Shivaram Koirala	CEO	SKBBL, Kathmandu
14	Shankar Sapkota	Senior Agriculture Economist	MoALD, Kathmandu
15	Baikuntha Adhikari	Joint Secretary	MoALD, Kathmandu
16	Dr. Shreeram Ghimire	Chief	AITC, Kathmandu
SN	Name of Participant	Designation	Organisation
17	Dr. Ganga Dutta Acharya	Under Secretary	MoALD, Kathmandu
18	Yam Narayan Devkota	Director	Agri. Development Directorate, Butwal
19	Dr. Narahari Dhakal	Consultant	IFAD, Project Completion Review Mission
20	Dr. Shanta Karki	Chief	National Fruitcrop Development Centre, Kirtipur
21	Madan Thapa	Chief	SQCC, Kathmandu
22	Dr. Pradyumna Pandey	Senior M & E Officer	FANSEP, Kathmandu
23	Dilli Raj Joshi	Consultant	IFAD, Project Completion Review Mission
24	Benu Prasad Parshai	Programme Coordinator	ASDP, Surket
25	Kaushal Kumar Poudel	Programme Manager	KUBK-ISFP, Butwal
26	David Doolan	Mission Leader	IFAD, Project Completion

SN	Name of Participant	Designation	Organisation
			Review Mission
27	Binod Kumar Bhattarai	Senior Agriculture Economist	MoALD, Kathmandu
28	Sabnam Shivakoti	Joint Secretary	MoALD, Kathmandu
29	Dr. Sudir Thapa	DPM	KUBK-ISFP, Butwal
30	Dal Bahadur Khatri	Proprieter	Lekali Goat Firm, Pyuthan
31	Dipendra Keshari Neupane	Seed Specislist	Private seed inspector
32	Lilaram Poudel	Seed Coordinator	KUBK-ISFP, Butwal
33	Khusbu Chaudhary	Officer	MoALD, Kathmandu
34	Narjan Shrestha	Proprieter	Ishwor Dairy, Gulmi
35	Lal Prasad Acharya	Representative	SEAN
36	Prakash Chandra Tara	Consultant	RIMC, Nepal
37	Hum Kanta Pandey	Livestock Development Officer	KUBK-ISFP, Butwal
38	Nirmal Kumar Acharya	Chairperson	Rukumeli Agro. Seed Center, Dang
39	Kishor Kafle	PM & E officer	Heifer, Nepal
40	Hari Krishna Upreti	Director	NARC, Kathmandu
41	Govinda Lal Karna	Project Coordinator	KUBK-SKBBL, Butwal
42	Indra Raj Pandey	Cairperson	Nepal Horticulture Society
43	Prakash Acharya	Senior Crop Deve. Officer	DoA, Kathmandu
44	Dr. Hari Sharma Neupane	CEO	AEC, Kathmandu
45	Basanta Bhattarai	Account Officer	KUBK-ISFP, Butwal
46	Madan Gautam	Accountant	KUBK-ISFP, Butwal
47	Sisir Bhandari	Technical Officer	MoALD, Kathmandu
48	Abhinash Poudel	Officer	NACCFL, Kathmandu
49	Gita KC GM	Chairperson	SFACL,Bijuwar Pyuthan

SN	Name of Participant	Designation	Organisation
50	Dr. Prakash Raj Bista	Senior Agri. Officer	ASDP, Surket
51	Dr. Dinesh Parajuly	Project Coordinator	AEC/FNCCI
52	Maulik Karki	Computer Operator	KUBK-ISFP, Butwal
53	Mina Pokhrel	DGM	NACCFL, Kathmandu
54	Bhim Neure	Technical Director	Pancha Sakti Seed Company, Dhangadi
55	Chiranjibi Adhikari	Agri.Officer	FANSEP, Kathmandu
56	Ganga Pokhrel	Crop Development Officer	KUBK-ISFP, Liasion office
57	Pramod Adhikari	Computer Operator	KUBK-ISFP, Butwal
58	Shivanandan Prasad Shah	Project Coordinator	PPCK-AMIS
59	Gopal Bashyal	Cairperson	Boer Breeder Herd , Diverna
60	Ishwor Barshila	Agriculture Economist	MoALD, Kathmandu
61	Dilliram Sedhai	Project Coordinator	NLSIP, Kathmandu
62	Nirmal Regmi	Crop Development Officer	KUBK-ISFP, Liasion office
63	Subhakala Nepali	Cairperson	Bhujunge Goat Raring Farmer Group, Arghakhanchi
SN	Name of Participant	Designation	Organisation
64	Santosh Adhikari	Rural Finance Specialist	RERP, Itahari
65	Purna Chemjong	Consultant	RIMC, Nepal
66	Tek Bahadur Year	Veterinary Officer	MoALD, Kathmandu
67	Purna bahadur Budha	Veterinary Officer	MoALD, Kathmandu
68	Toya Nath Joshi	Plant Protection Officer	MoALD, Kathmandu
69	Srijana Marasini	Crop Development Officer	DoAD, Kathmandu
70	Sagar Dahal	FMS	MCA, Nepal
71	Subash Raj Upadhaya	Cairperson	Lumbini Seed Company, Rupandei

SN	Name of Participant	Designation	Organisation
72	Sudip Regmi	Seed Component Officer	KUBK-ISFP, Butwal
73	Krisna Prasad Paudel	M & E/ KM Officer	KUBK-ISFP, Butwal
74	Shankar Aryal	FMS	KUBK-ISFP, Butwal
75	Bharat Bahadur Acharya	Senior Horti. Dev. Officer	NCPVSD, Kirtipur
76	Bishnu Magrati	Planning Officer	KUBK-ISFP, Butwal
77	Udaya Bahadur Poudyal	GESI Advisor	KUBK-ISFP, Butwal
78	Sujan Piya	Program Dev. Specialist	USAID
79	Krishna Bahadur KC	Agri. Officer	MoALD, Kathmandu
80	Ghuran Thakur	Consultant	ADBL, Kathmandu
81	Bina Sharma	Director	ADBL, Kathmandu
82	Shiva Hari KC	Manager	SKBBL, Kathmandu
83	Samjana Koirala	Agri. Officer	ASDP, Surket
84	Ujjawala Sahu Shrestha	Crop Development Officer	DoAD, Kathmandu
85	Pritam Kumar KC	Agri. Tecnician	Konjusom RM, Lalitpur
86	Baikuntha Bhandari	Journalist	Agri. Online News
87	Surendra Subedi	Plant Protection Officer	MoALD, Kathmandu
88	Naba Raj Gautam	Sectiion Officer	MoALD, Kathmandu
89	Narayan Ghimire	Propriter	Kisan Dairy Udhog, Pyuthan
90	Hira Lal Yogi	Secretary	Monaris Seed Potato Production Group, Salyan
91	Chitra Sharma	Secretary	Khadyanna Biu Utpadan FG, Rukum
92	Dayaram Bashyal	Agri. Tecnician	KUBK-ISFP, Butwal
93	Kabir Kumar Karki	Admin Assistant	KUBK-ISFP, Butwal
94	Roshna Shrestha	MIS Specialist	KUBK-ISFP, Butwal
95	Sushila Pokhrel	Computer Operator	KUBK-ISFP, Butwal

SN	Name of Participant	Designation	Organisation
96	Anup Nainabasti	M & E Officer	KUBK-ISFP, Butwal
97	Suresh Parajuly	Admin Assistant	KUBK-ISFP, Butwal
98	Dev Raj Gauli	Reporter	NTV, Agri. Programme
99	Hridaya Narayan Tharu	Procurement Manager	KUBK-ISFP, Butwal