Farming As A Business (FAAB) Extension Tool

Mercy Corps Nepal

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Abbreviations

ADBL	Agriculture Development Bank Limited
AEP	Agriculture Extension Project
AERP	Agriculture Extension and Research Project
AFE	Action For Enterprises
AIS	Agriculture Innovation System
APIR	Analyze, Plan, Implement and Review
BEE	Business Enabling Environment
BEP	Break-Even Point
CBO	Community Based Organization
CCI	Chambers of Commerce and Industry
DADO	District Agriculture Development Office
DAG	Disadvantaged Groups
DDC	District Development Committee
DFID	Department For International Development
DoA	Department of Agriculture
DoC	Department of Cooperative
DoFT&QC	Department of Food Technology and Quality Control
DoLS	Department of Livestock Services
FAAB	Farming As A Business
FAO	Food and Agriculture Organization
FFS	Farmer Field School
FMS	Farmer Marketing School
GAP	Good Agriculture Practice
GoN	Government of Nepal
HARP	Hill Agriculture Research Project
IHDP	Integrated Hill Development Project
INGO	International Non-Government Organization
IRDP	Integrated Rural Development Project
MFI	Micro Finance Institution
MIS	Market Information System
MOAAS	Market Oriented Agriculture Advisory Services
MoAC	Ministry of Agriculture and Cooperatives
MoU	Memorandum of Understanding
NGO	Non-Governmental Organization
NUBL	Nirdhan Utthan Bank Limited
PAR	Performance Appraisal Review
PSO	Private Sector Organizations
R & D	Research & Development
SCC	Savings and Credit Cooperatives
SHG	Self-Help Group
TLDP	Third Livestock Development Project
ToT	Training of Trainer/Transfer of Technology
VCA	Value Chain Analysis
VDC	Village Development Committee

How to use FAAB Extension Tool?

- Each step has been provided with background paper. So users are requested to read the background paper beforehand.
- Each step has got 8 sub-title covering introduction, objective, methods, tools, tips, activities, indicators of achievements and results.
- Depending upon the situation, some step requires long duration and some require very short.
- It is highly recommended to start with business cycle or crop cycle, and confirm by applying at least two cycles.
- Baseline and Endline is must. *(Please refer Annex 1 for Baseline and Endline Format)*
- Based on context, one can design separate training manuals and deliver it.
- These are simply guidelines as description not prescriptions.
- This can be directly implemented by project, project partners and indirect promotion.
- After completion of any step, review on it and reflect on it and document the results.
- It is a 'Living Document', so it will be updated regularly.

PART I: INTRODUCTION

A. Background

"Farming as a Business" (FAAB) is Mercy Corps Nepal's project-based extension approach to working with farmers groups during agricultural interventions. FAAB is a form of private sector development, its ultimate target is low-income, smallholder farmers, and all of Mercy Corps Nepal's social inclusion indicators apply at the project level. While in almost all cases, farmer-level activities will be supplemented with activities at the input, trade, markets and policy levels, which will vary by commodity and value chain, we believe that FAAB forms the core of a successful agricultural intervention.

MC-N's FAAB Extension Approach is very much aligned with the evolutionary Extension System of Nepal. *(Please refer Annex 2: Evolution of Agricultural Extension System in Nepal)* This trend is very pronounced in South and South East Asia as paradigm shift in the focus of production-led to market-led extension approach.

In keeping with Mercy Corps' emphasis on "community-led, market-driven" Commercial Agriculture Extension programming, and in keeping with our definition of "high-impact" commodities, FAAB constitutes a form of "extension +"[1] services that are designed with reference to high-potential crops and market requirements.

Here "Extension +"means development and strengthening farmers' organizations; improving farmers' ability to find solutions to technical, credit related and marketing problems; assisting in sourcing for better technical knowledge available with other organizations; and strengthening the capability of farmer organizations to negotiate with the state, traders and banks for changes in terms of policy and practices.

FAAB is therefore a pro-poor, market oriented, farmers' group development extension approach. The table below sets out FAAB's nine steps, and also the basic principles that underlie these steps.

B. Basic Principles

- **"No phase in/ no phase out"** – when we understand the needs and agenda of the farmers and business communities, our work can be a strengthening influence for existing sub-sector activities as opposed to promoting a separate agenda.
- **Location-specific correct** (suitable and need-based) **Commodity Selection** is an important determinant of success; using Value Chain Analysis (VCA) tool assist to guide **"high-impact" commodity** selection process.
- MC-N targets and organizes poor, low income smallholder farmers, which directly contributes to **reach economies of scale.**
- Farming has social and cultural implications, but must be treated as a **business** to improve household incomes; we consider farmers groups to be **private sector actors**; some businesses succeed, and others do not
- For agriculture projects, **local private sector partners** (cooperatives, associations, CCIs) are preferable to NGO partners, since these partners will continue their role beyond the life of a project.
- FAAB Extension Services is guided by **good agricultural practices** (GAP) for human health and environmental sustainability.

[1] Rasheed Sulaiman V and Andy Hall, (2004) Towards Extension-plus: Opportunities and Challenges, National Center for Agricultural Economics and Policy Research (ICAR), New Delhi

- The approach is **not prescriptive** – in some cases groups will require all steps, and in some cases only some.
- The approach tries to **identify the gaps** and addresses with **innovative market-based solutions**.

C. Why FAAB Extension Approach to adopt?

Smallholders[2] are frequently struggling to improve their farming business but somehow, they are back again to practice the subsistence nature of work. Because farming as a business inherently faces so many risks like crop/livestock failure, business failure and typically the market failure which always discourages the smallholders to jump in. So FAAB Extension Approach tries to explain the scope of the particular business and hit to the specific problems in the business management. So FAAB is smallholder-friendly tool as state-of-art making farming as a business to the large segment of the population.

D. Partnerships Principles

The overall goal of agriculture intervention is to increase the farm profit of the smallholders as per guided by aforesaid basic principles. MC Nepal will bring any actor into partnership who by means have comparative advantage in providing services and develop collaboration – competitively, efficiently and innovatively. So the partnership ranges from GO-Private-Civil Society. In this context, "**principles of subsidiary**" is adopted which allows making decision at the lowest level possible and implement the activities then-and-there.

E. Changing Role in Project Management

The project should take leading role in the beginning in all sorts of actions so that different actors are known for their strength and weaknesses in implementing of project activities. All actors are allowed to express their issues, concerns, ideas and problems. But the central point must be focused to raise the interest of smallholder farmers to participate in project activities. Focus should be to build the trust among the value chain actors. Some kind of quick result giving activities should start immediately if possible. Then ultimately take a role of backstopping while identifying project activities seeking collaboration from all actors. Here, the point of focus is to find out and agree to the intervention activities which must be beneficial to all recognizing it as new, innovative and promising to smallholders.

[2] Step-1, Characteristics of Smallholders

PART II: STRATEGIC ALIGNMENT & MOBILIZATION

This is the first stage of FAAB intervention which comprises of three major strategic components – 1) High Impact commodity and site selection, 2) Stakeholder meetings to foster Enabling Environment and 3) Smallholders' group formation.

1. High Impact Commodity and Site Selection

1.1 Introduction: This is one of the most important strategic actions for the project intervention. This is based on Value Chain Analysis (VCA) with high impact to the participating smallholders. *Please refer Annex 3: High Commodity and Site Selection for details.*

1.2 Objectives: To select the most critical high impact commodity or cropping pattern in the working sites so that the selected commodity intervention could contribute increased farm profit per unit land per year or per season

1.3 Methods: Participatory and interactive methods are used for Value Chain Analysis (VCA).

1.4 Tools: Value Chain Analysis (VCA) is the major tool used which are validated by content analysis, gap analysis and market analysis during or while conducting VCA.

1.5 Tips: Sometime the selection is guided by donor's interest. i) It is sometime qualitative judgmental based on the local situations. ii) Many critical value chain may be missed due to beyond the project scope and iii) lastly, always look for the scope of addressing the gaps with given resources and time frame.

1.6 Activities:
VCA or SSA using the following framework using a participatory process:

i) Subsector selection (develop criteria, create a matrix of weights and comparisons, prioritize crops, sites and beneficiaries based on "high-impact" definition)
ii) Validation with key stakeholders, especially farmers and market-level actors
iii) Identify constraints and opportunities (input, farmer, traders, wholesalers/ exporters)
iv) Identify service providers (inputs, extension/ technical, financial, marketing)
v) Assess services (availability, capacity of service providers, demand for services)
vi) Market analysis (market locations/access, competitors, production/supply, demand, price
vii) Identify intervention points

1.7 Indicators of Achievements – Complete report mentioning commodities, sites, target beneficiaries and intervention points.
1.8 Result – Value Chain Analysis Report

2. Stakeholder Meetings to foster Business Enabling Environment (BEE)

2.1 Introduction: This is a kind of formal meeting organized by project and partners. This is generally conducted in the working districts and VDCs. It helps to make participatory, transparent and seeking the roles of various actors. *Please refer Annex 4: Stakeholder Meetings for details.*

2.2 Objectives: To foster the enabling environment of farming business in the working districts, sites and market centers.

2.3 Methods: The formal meeting is conducted where the participating actor express their concerns in the set agenda and project working methods, followed by identifying major issues and minutes of record.

2.4 Tools: Formal invitation, personal visit, discussion on project's meeting's agendas and minutes.

2.5 Tips:

i) Try to involve all the value chain actors
ii) Project staffs be patient and passive, and listen more
iii) Don't reply immediately whatever issues are raised
iv) Fix tentative dates for follow-up with reminding, and
v) Conduct another meeting if needed

2.6 Activities:

i) Identify key stakeholders at the district and community level; define role of each
ii) Analyze relationships between stakeholders
iii) Define date, time, venue, participants, and logistics for initial large-scale meeting, to be followed up by smaller meetings with enthusiastic stakeholders
iv) Conduct meetings to introduce project, verify plans, discuss roles, and obtain pledges of support from stakeholders who can create an enabling environment
v) Identify resource people from among key stakeholders to assist at community level

2.7 Indicators of Achievement: i) Meeting minutes ii) Number of stakeholder consulted iii) Number of meetings conducted

2.8 Result – Formal Meetings held

3. Smallholders Group Formation

3.1 Introduction: Different services cannot be rendered at personal level, because of geographical terrain and cost factors, group-based extension approach has been found very effective. This has also another distinct advantage of reaching to the economies of scale while marketing the products so that the smallholders can increase their bargaining power. Based on local situation, ethnicity and accessibility factors, 15-20 member farmer group can be formed. More attention should be given for clustering. . *Please refer Annex 5: Group Formation for details.*

3.2 Objectives: To make effective services delivery and reaching the economies of scale for marketing the products through group formation.

3.3 Methods: Certain criteria can be developed to meet the project goal keeping in view for:

i) representation (from poor, ethnic minority, women, people from disaster prone areas and people residing in very far remote areas)
ii) scope for marketing and commercialization
iii) avoiding duplication
iv) ready to work as partner of MC-N with the fulfillment of sharing information and,
v) adopt market-based business solution in farming of selected commodity.

3.4 Tools: Concept of Work Group

3.5 Tips:

i) Try to form homogenous group if possible
ii) Examine whether income from farming business binds or not
iii) Cross-check the acceptance of leadership post to all and,
iv) Check any symptoms of dependency syndromes.

3.6 Activities:

i) Context analysis (transect walk, identification of existing groups and local stakeholders)
ii) Community-level consensus building meeting
iii) Community-led Selection of group participants based on food sufficiency, willingness, project criteria, and crop suitability
iv) Elect chairperson and define term of office
v) VDC approval/ recognition
vi) Register group to project

3.7 Indicators of achievement:

i) Meeting minutes
ii) Formal VDC approval
iii) Number of groups formed
iv) % of women, and DAGs in the group

3.8 Results – Community-based meetings per VDC

PART III: TECHNICAL CAPACITY BUILDING

This part forms the heart of the FAAB Extension Approach, which comprises of three services, they are - 4) Production Technical Services 5) Farm Business Management and 6) Marketing Services.

4. Production Technical Services:

4.1 Introduction: For increasing farm productivity, production technical services are provided to the smallholders so that they can increase productivity per unit land per year. *Please refer Annex 6: Technical Services for details.*

4.2 Objectives: i) To increase farm productivity per unit land ii) decreasing risk and iii) restoring environmental resources bases sustainably.

4.3 Methods: Some components of Farmer Field School (FFS) and Good Agriculture Practices (GAP) set the milestone for intervention. In this process, it can be applied for whole crop cycle or business cycle or parts of it in production techniques only. It can also be used in livestock, plantation crop in disaster affected areas and agro-forestry.

4.4 Tools: Within the framework of FFS and GAP, the specific tools are- i) demonstration, ii) training, iii) mentoring iv) visits and v) record keeping for comparison.

4.5 Tips: Advice farmers on i) selection of crop variety which matters the most ii) intensive care throughout crop cycle is important iii) be sensitive to the climatic change and its effect in crop production iv) follow environmental-friendly practices.

4.6 Activities:

i) Identify basic minimum technical requirements for target crops, with reference to market requirements

ii) Assess current technical practices of farmers groups

iii) Based on gaps between requirements and practices, work with groups on:

a. Seed management (eventually leading to Participatory Varietal Selection if time permits), linked to Step 9 below

b. Cultivation (timing, land preparation, manuring, organic fertilizers, plantation, weeding/mulching, harvesting time/ method)

c. Irrigation (timing, low cost methods)

d. Plant protection (surveillance, management methods, bio-pesticides and organic fungicides)

e. Post-harvest (cleaning, grading, drying, storage)

4.7 Indicators of Achievement – i) % increase in yield per unit land ii) adoption % of improved cultivation practices iii) % of disease and insect incidence in the field iv) number of farmer practicing GAP

4.8 Results – i) FFS Training Report ii) Demonstration and iii) GAP Report

4.9 There are **two levels** of technology transfer

a) General level – It is a level of technology which are adopted to improve the production system with change in seed, methods of cultivation and timing. The expected level of yield increase is from 25-50%.

b) Improved System – It is a level of technology use or transfer which are adopted to improve the production system with change in seed, fertilizer or manure, plant

protection materials, timing of cultivation, methods, use of tools, harvesting techniques, post harvest handling and marketing

5. Farm Business Plan

5.1 Introduction: A farm is a socio-economic as well as a decision-making unit. Farm business management deals with the organization and operation of a farm with the objective of maximizing profits from the farm business on a continuing basis. Farm business management implies decision-making processes which are broadly of three types – i) organizational related to operationalization for –what to produce? How to produce? And how much to produce? ii) Administrative decision like financing, record keeping and supervision and iii) marketing decision related to buying and selling. *Please refer Annex 7: Farm Business Management for details.*

5.2 Objective: To create awareness about the importance of Farm Business Plan in taking decisions in advance and also use in financing.

5.3 Methods: Generally interactive training is the direct method of business services which needs periodic follow-up and feedback system.

5.4 Tools: The major tools used are i) business concepts ii) cost analysis iii) production analysis iv) profit-loss analysis v) enterprise budgeting vi) calendar of operation vii) cash flow viii) break-even point calculation ix) market planning 10) record keeping

5.5 Tips: Select and prioritize the commodity based on attractiveness in terms of profit and suitability of the land.

5.6 Activities:

Help farmers manage finances, resources (human and natural), and market knowledge more effectively, through:

i. Review existing MC-N Business Planning Training materials; test, modify as needed
ii. Plan logistics for BP training
iii. Deliver 2-day training as early in the project as possible, covering:
   a. What is business? Why am I in this business?
   b. What is business planning? Why is it important?
   c. Tools: profit/ loss analysis, crop time table, cash flow analysis, land management, labor management
iv. Integrate business planning tools into future work with farmers groups

5.7 Indicators of Achievement - % of farmers using business planning tools after x year (time will vary by project)

5.8 Result – Farm Business Plan Training Report (delivered by MC-N or Partners or Consultant)

6. Farm Marketing Plan

6.1 Introduction: Marketing lays the foundation for all business planning. Marketing plan outlines what you will produce, who you will produce for, how you will get customers to buy your product, and how you will get the product to them when they want it. *Please refer Annex 8: Marketing Service for details.*

6.2 Objective: To make aware and train about Market, Marketing Plan and Market System.

6.3 Methods: Farm Marketing Plan Training, Mentoring and Facilitation.

6.4 Tools: i) Meeting ii) Information iii) Field Visit iv) Simple Market Research v) Indentify Market Chain Actors vi) Record Keeping vii) Market Mapping

6.5 Tips: i) Know the market actors ii) Analyze the produce iii) Decide how to approach iv) Decide who is the client for product selling v) Assess the quality of the product vi) Calculate the transaction cost.

6.6 Activities

i) Market research (review VCA, survey domestic, Indian and third country markets, orient farmers groups on findings, if possible with private sector partner involvement)

ii) Collective Marketing (build group consensus, elect marketing sub-committee, review quality and negotiation requirements, facilitate interaction with traders)

iii) Contract Farming – for advanced groups only (orientation on contract farming; facilitation negotiations, preferably via trade association; help group select buyer; execute contract)

iv) If trade association or CCI-managed MIS exists, explain how farmers can access existing MIS (note: MC-N projects will not form MIS from scratch)

6.7 Indicators of Achievement – i) % of farmers marketing produce through groups ii) number of contract farming agreement executed iii) price differences – farm gate, wholesale and premium

6.8 Results – Market Sale and Facilitation report

PART IV: INSTITUTIONAL CAPACITY BUILDING

This part forms final section of FAAB which is very important and crucial while addressing the issue of sustainability. It has got three major components are – 7) Linkage Building 8) Linking to Financial Services and 9) Institutional Development

7. Linkage Building

7.1 Introduction: Actually it is business linkage building for the sake of building relation, developing trust and putting combined efforts of all actors in the whole market chain. *Please refer Annex 9: Business Linkages for details.*

7.2 Objective: To build relation, this directly affects in the business successes.

7.3 Methods: i) formal meeting ii) sharing iii) linkage building for business relation

7.4 Tools: i) this process is more art than science so local context specific situation guides the process. ii) identify the issue and potential actors. iii) build linkages based on shared goal.

7.5 Activities: Assumptions: linkages are meant to build trust and relationships, but they depend on the actors themselves – some will work and some will not; and, matching grants will generally not result in sustainable linkages, only internal incentives will do so.

i. Review VCA report to identify actors and important linkages
ii. Convene VC actors meeting (farmers, traders, associations, input suppliers, GoN agencies, CCIs) to identify gaps and initiate relationships
iii. Carry out multiple focused workshops to initiate practical linkages at the levels of seed management (cooperatives, seed groups farmers), input supply (agro-vets, cooperatives, seed groups, farmers), technical services (GoN, cooperatives, farmers), and marketing (farmers, cooperatives, traders, CCIs, associations)
iv. Where appropriate, facilitate cross-visits

7.6 Indicators of Achievement: i) number and type of agreement signed for business dealing ii) success stories and system introduced iii) evidence of actors having formal linkages

7.7 Results: i) workshops ii) cross-visits iii) interaction meetings

8. Financial Services

8.1 Introduction: As an input, financial services are very crucial to start any sort of business. In case of farm business, it is more important because majority of the rural poor farmers are formally linked to formal financial services rather they are forced to borrow from local money lenders. *Please refer Annex 10: Financial Service Linkages (Value Chain) for details.*

8.2 Objective: To inform and link farming business group to the formal financial sectors like commercial bank, MFIs and Cooperatives to increased financial access.

8.3 Methods: Formal meeting followed by joint sharing in large forum and Linking to the agencies.

8.4 Tips: i) try to understand specific requirements of each agency ii) keep abreast of each agency's financial service portfolios iii) work out long term working procedures.

8.5 Activities:

i) review VCA and assess existing service providers
ii) orient farmers groups on financial service types, providers, advantages/ disadvantages, and credit terms and conditions
iii) Facilitate interaction between farmers groups and financial service providers
iv) Where appropriate, temporarily subsidize the expansion of services through conditional deficit subsidies for fixed time period

8.6 Indicators of Achievement: i) number of farmers accessing new financial services ii) financial indicators: value of loan, repayment rate and PAR

8.7 Results: Periodic Financial Institution Report included all above indicators

9. Institutional Development

9.1 Introduction: After our intervention, services are provided through informal groups which further need to formalization like registration in agriculture development office, cooperatives or large association based on members' interest and feasible in local situations. *Please refer Annex 11: Institutional Development Services for details.*

9.2 Objective: To develop into long term functional institution

9.3 Methods: Mentoring, facilitation and cross visits to other areas for Formal Registration as Group, Cooperatives and other special forms of institutions like association/alliance

9.4 Tips: i) find out what are rules and regulation ii) find out by-laws introduced by government

9.5 Activities:

i) Register groups (or cooperatives), and affiliate to higher-level cooperatives by: sharing legal criteria and requirements; develop group biniyam (bylaws); facilitate registration process with VDCs and DADOs, or with cooperative division offices; and, assist groups to complete documentation requirements

ii) Seed bank management as an interim step to commercialized seed supply: develop collection and redistribution terms and conditions; develop procurement system; involve DADOs; facilitate seed banking MoUs

9.6 Indicators of Achievement: i) number of groups/cooperatives registered ii) number of groups affiliated to cooperatives iii) quantity and quality of seed returned and redistributed

9.7 Results: Report on group status and institution development stages.

PART V: ANNEXES

Annex 1: Baseline and Endline Format

Under Agriculture Production and Marketing Intervention

अदुवाको उपयुक्त खेतीगर्ने तरिका तथा अदुवा उत्पादन संकलन फारम

Good agriculture practices and production data collection form- Ginger

स्याम्पल शुरु नं (Sample Start #) : ❑१ ❑२ ❑३	कृषकको नाम (Farmers Name) :	
लिङ्ग (Sex): ❑पुरुष (Male) ❑महिला (Female)	मुख्य आम्दानीको श्रोत (Major income Source)	❑कृषि (Agriculture) ❑सरकारी जागिर (Government Job) ❑गैर सरकारी जागिर (Non-Government Job) ❑दैनिक ज्यालादारी (Daily wages) ❑मौषमी बसाई सराई (Seasonal migration) ❑अन्य (others).....
समूहको नाम (Farmers Groups Name):		
गा.वि.स (V D C):	वार्ड नं (Ward #):	
जिल्ला:(District):		
के निर्धन उत्थान बैंकले यस गाउँमा समूह गठन गरेको छ ? ❑ छ (Yes) ❑ छैन (No) Has Nirdhan started a group in your village?	यदि छ भने, तपाई वा तपाईको परिवार सदस्य त्यस समूहमा आबद्ध हुनुहुन्छ ? ❑ छ (Yes) ❑ छैन (No) If "yes", have you or someone from your household joined?	यदि छ भने, तपाई वा तपाईको परिवार सदस्यले त्यस बैंकबाट ऋण लिनु भएको छ ? ❑ छ (Yes) ❑ छैन (No) If "yes", have you or someone from your household taken out a loan?

खण्ड क अदुवाको उपयुक्त खेतीगर्ने तरिका

(Section 1- Good Agriculture Practices on Ginger Farming)

क.सं. S.N	**प्रश्नहरु (ठिक चिन्ह लगाउनुहोस् ।)** Questions (Please tick mark on the appropriate column)	**छ** Yes	**छैन** No	**कैफियत** (Remarks)
1.	के किसानले अदुवाको विउ लगाउनु भन्दा अघि अदुवाको विउलाई ट्राइकोडर्मा अर्गानिक फञ्जिसाइड मार्फत उपचार गर्ने गरेको छ ? Has the farmer treated seeds before planting (particularly for ginger seeds by using *Trychoderma* organic fungicide)?			
2.	के किसानले विउ लगाउनको लागि ड्याङ उचित तरिकाले तयारी गरेको छ ? Has the famers prepared furrow appropriately for the plantation of seeds?			
3.	के किसानले उचित दूरीमा विउहरु लगाएको छ ? Has the farmer planted the seeds in appropriate distance from one seed to another seed?			
4.	के किसानले सहि मात्रामा र सही तरिकाले सुकेको स्याउला अथवा झारपातको छाप्रो प्रयोग गरेको छ ? Has the farmers applied mulching sufficiently and appropriately?			
5.	के किसानले प्राङ्गिक मल अथवा गोठे मल प्रयोग गरेको छ ? Has the farmers used manure or other organic fertilizer?			
6.	के किसानले आवश्यकतानुसार सिचाई गरेको छ ? Has the farmer irrigated water as per need?			
7.	के किसानले वालीलाई समयानुसार गोडमेल गर्ने गरेको छ ? Has the farmer cleaned the weeds regularly?			

8.	के किसानले अदुवाको ब्रुनी/माउ अदुवा निकालेको छ वा निकाल्ने वारे थाहा छ? Has the farmer harvested or known to harvest the bruni/mother seeds?			
9.	के किसानहरुले ब्रुनी/आमा अदुवा निकाल्दाखेरी ट्राइकोडर्मा अर्गानिक फङगिसाइड प्रयोग गरेको छ ? Has the farmer treated the plant while harvesting the gingers' brooni/mother seeds by using *Trychoderma* organic fungicide?			
10.	के किसानले रोग तथा किराहरुको नियन्त्रणका लागि केही उपाय अपनाएको छ ? Has the farmer applied the techniques for disease/insect management?			
11.	के किसानले वाली उचित तरिकाले भित्र्याएको छ ? Has the farmer harvest the crops appropriately?			
12.	के किसानले वाली छनौट र स्तरिकरण गरी भण्डार गरेको छ ? Has the farmer sorted and graded the crops accordingly?			
13.	किसानले यी बाहेक के नयाँ कुरा गरेको छ र के कुरा फरक तरिकाले गरेको छ ? Apart from these, what new technologies did the farmers use or practice differently?			
14.	किसानले भोगेका मुख्य समस्याहरु के के हुन् ? What are the major problems faced by the farmers?			

खण्ड ख अदुवा उत्पादन सम्बन्धि जानकारी
(Section B- Information on Ginger production)

अदुवा रोपाई सम्बन्धि जानकारी Ginger Plantation	
15. अदुवा खेती गरिएको जमिन (रोपनी) _____ Land used for Ginger (Ropani)	16. सहकारीबाट प्राप्त गरेको बीउ अदुवा (केजी) _____ Seed Received from cooperatives (kg)
17. अतिरिक्त खरिद गरेको अदुवा (केजी)_____ Extra seeds purchased (kg)	18. खरिद मुल्य प्रति के.जी (ने.रु) _____ Price per kg

२०६७ सालको अदुवा उत्पादन सम्बन्धि जानकारी Ginger Production 2010		
19. माउ अदुवा निकालिएको (केजी) _____ Bruni Ginger harvested (kg)	20. माउ अदुवा बेचेको परिमाण (केजी) _____ Bruni Ginger sold (kg)	21. माउ अदुवा बिक्री मुल्य प्रति के.जी _____ Price per kg
22. नयाँ अदुवा निकालिएको (केजी) _____ Ginger harvested (kg) 23. बारीमा अदुवा छोडिएको थियो ? ☐थियो ☐थिएन Any left if field? (Yes/No)	24. यदि थियो भने, कति (केजी) ? _____ If yes, how much (kg)?	25. कुन उद्धेश्यका लागि छोडिएको थियो ? For which purpose? ☐ बीउ (Seeds) ☐ पछि बेच्न (To sale later) ☐ पछि खान (To consume later) ☐ अन्य (others) .....
26. बेचेको परिमाण (केजी) _____ Ginger sold (kg)	27. बिक्री मुल्य प्रति के.जी _____ Price per kg	28.सहकारीलाई फिर्ता दिएको (केजी) _____ Returned to cooperative (kg)
29. बीउको लागि भण्डारण गरेको (केजी) _____ Saved for seeds (kg)	30. घरमा खपत गरिएको (केजी)_____ Consumed at house (kg)	31. जम्मा उत्पादन (केजी, Q26 +28+29+30) _____ Total Production (kg, Q26 +28+29+30)

32. अदुवा कुन ठाउँमा बिक्री गरिएको थियो ? Where did you sell ginger? _____	**<u>Need to fill up by social mobiliser based on answer of Qn 32</u>** ☐ सहकारी Cooperative ☐ स्थानीय व्यापारी Local trader

	❑ स्थानीय बजार Local market ❑ जिल्ला स्थित बजार District Market ❑ अन्य others _____
33. अदुवा संगै मकै पनि मिश्रित रुपमा लगाईएको थियो ? ❑थियो ❑थिएन Was ginger intercropped with other crop? (Yes/No)	34. यदि थियो भने, मिश्रित बालीको रुपमा कति मकै उत्पादन भयो ? (पाथी)..... If Yes, amount of maize harvested from intercrop (*Pathi*)?

बैकल्पिक बालीहरु Alternative Crops

35. यदि परियोजना आबद्ध नहुनु भएको भए यस पुरै जमिनमा उल्लेखित कुन कुन बाली लगाईन्थ्यो ? What would you have planted had you not participated in the project?" कुनै एकमात्र छान्नुहोस् । Tick mark only one option	❑ मकै Maize ❑ भटमास Soybean ❑ गहुँ Wheat ❑ धान Paddy ❑ अन्य others_____

36. छानिएको बालीको लागि लाग्ने बीउ (केजी) _____ Quantity of seeds (kg)	37. बीउको मुल्य प्रति के.जी (ने.रु) _____ Price of seed per kg	38. उत्पादन (केजी) _____ Harvest (kg)	39. मुल्य प्रति के.जी (ने.रु)_____ Market price per kg

तथ्यांक संकलनकर्ताको नाम (Name of Data Collector) .....

हस्ताक्षर (Signature) .....

मिति (Date of Data Collection)

Annex 2: Evolution of Agricultural Extension System in Nepal

As Nepal started its agricultural development efforts, it has gone through number of changes in terms of organizational structures, approaches and challenging issues, which are given below.

a) Historical events[3]

The planned agriculture development in Nepal started after the fall of Rana regime i.e. 1951. Within the short span of fifty years, public sector extension services faced frequent organizational changes, which were both advantageous and disadvantageous in terms of service delivery in terms of efficiency and priorities.

At present under the Ministry of Agriculture and Cooperative (MoAC), there are four departments – 1) Department of Agriculture (DoA) 2) Department of Livestock Service (DoLS) 3) Department of Cooperative (DoC) and 4) Department of Food Technology and Quality Control (DoFT&QC). Under the ministry, Nepal Agriculture Research Council (NARC) is separate autonomous body engaged in technology testing, verification and development where as DoA is engaged for extension services provisioned from district to sub-center level.

b) Agricultural Extension Approaches

Nepal, during the past fifty years of organized extension services, witnessed several shifts in approaches of extension as elsewhere which are summarized below:

In the early days, the agriculture extension were more inclined towards individuals' farmers and focused to the well leveled and fertile land. As such, there was no extension approach developed concretely.

German supported Gandaki Zone Agricultural Development Project (1968-78) promoted fertizer-based green revolution type technology-based extension approach.

Integrated Hill Development Project and subsequent Integrated Rural Development Project (IRDPs) during mid seventies continued high input technology-based extension benefiting rich farmers.

Training and Visit (T & V) approach was introduced in 1975 and gradually extended to all irrigation projects funded by the World Bank.

After 1981/82, this approach was extended to other World Bank funded projects, such as Agricultural Extension and Research Project (AERP), Hill Food Production Project (HFPP) and Agricultural Extension Project (AEP).

Between 1980s and 1990s, through these projects and others funded by Asian Development Bank (ADB) and Department For International Development (DFID) such as Third Livestock Development Project (TLDP), Hill Agriculture Research Project (HARP) etc. as agricultural extension in Nepal got modernized, decentralized and pluralistic research and extension system for its footing.

Farmers, recognized as beneficiaries of the extension and development services, were placed in the center to development strategy and were made proactively in participation in agricultural development process.

[3] For detail see- Krishi Prasar Sikhya (Nepali BS 2064) by D.N. Manandhar pages (187-210)

Similarly, several other projects implemented by I/NGOs further reinforced the potential benefits from extension services, particularly by minimizing the gaps between the service providers and the beneficiaries.

The role of NGOs well recognized after 1990s, and have synergistic to public sector interventions. Through these interventions, **"Group Approach"** has become a standard practice and package for agriculture extension and development projects.

c) Changing Issues for Agriculture Extension

Presently, busines environment for agricultural extension is changing fastly, particularly due to increasing globalization of farm sector. This calls for change in the attitude of public sector organizations and also of other stakeholders and the need to reoreint their capacity of delivering services. The future extension strategies must consider the following attributes of changing issues for extension:

- Farmers have become more sophisticated looking forward to their role in national and international markets.
- Broader extension agenda is emerging. Shift in paradigm of extension is taking place to cater the emerging needs of the farmer for diversified technologies, marketing and agribusiness, natural resource management, farm mechanization, etc.
- Extension service providers are diversifying. Recently, a large number of outside government organizations, particularly I/NGOs, CBOs, PSOs like Agro-vets etc have emerged in the scene and have become more competitive and cost effective.
- Role of public sector extension is changing. Public sector has to play the role more as **"service provisioner"** than as "service provider" demanding more sectoral support for quality assurance, monitoring and regulatory services.

d) Recent Interventions in Reforming Extension Services

- With various projects' initiative, the government introduced policy reform to promote public-private partnership, partnership with beneficiary groups and community organizations.
- The newly introduced reforms in national extension strategy [4](2063) initiated under the projects created heavy need of staff across the organization to reorient the extension agents associated with GOs and NGOs, Private Service Organizations (PSO) and CBOs and also policy makers affiliated to local bodies.
- The key contents of these reforms are the realization of changed role of public sector as a *facilitator* rather than a *service provider,* commercial outlook to service delivery, social mobilization and participatory development.

[4] For detail, see Krishi Prasar Shikya (Nepali BS 2064 by D.N. Manandhar pages (258-274)

e) Paradigm shift from Production-led Extension to Market-led Extension[5]

Aspects	Production-led Extension	Market-led Extension
Purpose/objective	Transfer of production technologies	Enabling farmers to get optimum returns out of the enterprise
Expected end results	Delivery of messages Adoption of package of practices by most of the farmers	High returns
Farmers seen as	Progressive farmer High producer	Farmer as an entrepreneur "Agri-preneur"
Focus	Production / yields "Seed to seed"	Whole process as an enterprise / High returns "Money to money"
Technology	Fixed package recommended for an agro-climatic zone covering very huge area irrespective of different farming situations	Diverse baskets of package of practices suitable to local situations/ farming systems
Extensionists' interactions	Messages, Training, Motivating Recommendations	Joint analysis of the issues varied choices for adoption consultation
Linkages/Liaison	Research-Extension-Farmer	Research-Extension-Farmer extended by market linkages
Extensionists' role	Limited to delivery mode and feedback to research system function	Enriched with market intelligence besides the TOT Establishment of marketing and agro-processing linkages between farmer groups, markets and processors
Contact with farmers	Individual	Farmers' Interest Groups Focused groups/SHGs
Maintenance of Records	Not much importance as the focus was on production	Very important as agriculture viewed as an enterprise to understand the cost benefit ratio and the profits generated
Information Technology support	Emphasis on production technologies	Market intelligence including likely price trends, demand position, current prices, market practices, communication network etc besides production technologies

f) Commercial Agricultural

Today commercialization of agriculture is an inevitable reality throughout the whole world. There are a number of factors affecting the commercialization process in agriculture. Some of them could be named as rapid growth of economies in the both developing and developed countries, introducing of new technologies, market expansion, market liberalization, urbanization, rapid increase of demand for food, decreasing of farming population, liberalized and open economic policies, bilateral and multilateral economic agreements, developed infrastructure facilities in farming areas and government agricultural policies. However, commercialization in agriculture is not a new phenomenon and it is not a surprise to the farming community. Since the 1950s, farmers in most of the countries have moved towards commercial agriculture. Their major objective was surplus production aiming market prospects. Agricultural extension plays a major role in agricultural production.

[5] MANAGE, Hyderabad, India 2001

Concept of Commercialization: Marketable Surplus of Produce as a Measure of commercialization

The term marketable surplus in the context of agricultural produce denotes the quantities of products available for consumption by the non-farming population and also as raw materials for manufacturing and processing industries. This concept helps to measure the extent of commercialization of the production activities of a particular crop. While high proportions of marketable surpluses indicate greater market orientation of the producers, lesser proportions of surpluses mean that the producers are more subsistence-oriented. The Food and Agriculture Organization (FAO) has categorized farmers into three different groups based on the marketable surplus as a percentage of total production in the following manner (FAO, 1989):

- Subsistence farmers: Marketable surplus under 25% of the total production.
- Semi-commercial: Marketable surplus ranging between 25-50% of total production.
- Commercial farmers: Marketable surplus more than 50% of the total production

However, what do we understand by the term 'Commercialization of agricultural production?' It can be defined as follows:

- Farmers' production is aimed mainly for sales.
- Production should be oriented to profit maximization.
- It should aim at the satisfaction of different needs and interests of consumers.
- It is an agri –business that implies concept of business management.
- It leads to entrepreneurial achievements of farmers.

g) What is the definition of 'Agricultural Extension'?

In general, Agricultural Extension is an ongoing, non-formal educational process which occurs over a period of time and it leads to improve the living conditions of farmers and their family members by increasing the profitability of their farming activities. In this activity, to achieve above goals, it expects the improvement of the farmer's knowledge, skills and change of their attitudes in agricultural technology, farming activities and agricultural marketing.'

Is this definition valid for today under the commercialization of agriculture? Is it only an educational process or more than that? Isn't it a socio-economic process? Is it not a business than a free service? Today extension should look into increasing the productivity of the farming as a business whole. It includes both direct farming activities and off farm or farming related activities. Agricultural extension should assist, guide and direct farmers to identify both farming and non-farming activities which can increase their net income. Therefore, the mode of agricultural extension is also a key factor which affects the degree of commercialization of agriculture.

Today, agricultural extension is a **commodity** with a certain price. This commoditization of agricultural extension, the transforming of knowledge into a product for sale, helped to revolutionize both public sector extension and the business of private sector technology transfer. This revolution took place not because of anything else, only because of the commercialization of agricultural extension.

h) Concept of Commercialization of Agricultural Extension

What do we understand by commercialization of agricultural extension? Under this concept, **firstly**, agricultural extension is considered as a commercial product or service, which exchanges between two parties over a required payment. Simply one party (extension providers) acts as sellers and

other party (farmers) acts as buyers. **Secondly**, basic economic theory of supply and demand is applied in this process. Agricultural extension service becomes a totally demand-oriented activity. **Thirdly**, extension can also be considered as an input such as fertilizer, improved seed, agro-chemicals, machinery, etc, which is essential for the commercially oriented farming. As farmers have to pay for other inputs, they have to pay for extension services also. The basic concept is that farmers have to pay for the service which they get. Either farmers pay totally or partially, it depends on the extension approach. Farmers may pay the full amount of the fee or the government or other funding agency could subsidize it fully or partially. However, finally extension providers are being paid for their service. These extension providers are not essentially to be private sector companies or individuals. It can be a government or semi government extension agency.

Why Commercialization, not Privatization? Privatization is mainly changing the ownership of the extension service to private sector from public sector. Extension services have been mainly funded and delivered by government agencies free of charge for decades. People in most of the developing countries have unpleasant experiences of privatization. This is why the concept of commercialization came into picture. Commercialization is not merely privatization. It does not need a change of ownership under commercialization. Ownership can be kept with the government or semi government organization, but the service is provided on a commercial basis. Under privatization, ownership should be changed into the hands of a private organization.

Different Forms of Commercialization of Agricultural Extension

There are a number of extension approaches that can be listed. Here, following categories could be particularly helpful to understand.

1. **Decentralization**

Decentralization of agricultural extension refers to one way of gradual transfer of responsibility for extension from the public to the private sector. It involves the transfer of planning, decision making, management, from the central government and its agencies to field organizations, subordinate units of government, semiautonomous public organizations, regional organizations, chambers of commerce, and even non- governmental organizations.

2. **Demand-driven private extension**

The major idea of this is to transfer delivery of extension services mainly to the private sector. Several types of private firms currently undertake agricultural extension activities. These include agro-processing firms, input suppliers, media companies and consulting firms.

3. **Contracting of extension services**

There are two types of extension contracting viz. “contracting out” and “contracting in”. Contracting out means public sector or state provides financing and private sector delivers the extension service for the financing authority. Contracting in means private organization or an NGO provides funds and public sector organization delivers the extension service.

4. **Institutional Pluralism**

Pluralism or pluralistic extension system means using both public and non-public institutions for delivering extension services to farmers. In many developing countries, various non-governmental organizations, private input supplying companies, semi governmental organizations deliver extension services parallel with the public sector extension services.

i) New Strategies for Commercialized Agriculture Extension

Based on different forms of commercialization, there is a need for new strategies to agricultural extension which emphasizes four elements: 1) Agricultural Innovation Systems (AIS) integrating

into larger framework of innovation system, 2) pluralism of service providers – provision of multiple actors 3) demand-driven – as per demand of the users and 4) Market–Oriented.

Neuchatel Initiatives (2008) defines, the Market Oriented Agricultural Advisory Service (MOAAS) as – **"Pro-poor MOAAS are knowledge services which assist small to medium scale farmers and other actors in agricultural value chains to increase their access to markets and secure benefits from commercialization".**

The term extension, as used here, is taken synonymous with advisory services and the word '**extension'** is seen by some as an old fashioned term related to one-way technology transfer, rather here, it has been used intentionally to highlight the importance of breaking out these past assumptions and infusing the concept of extension with new meaning.
So here, extension is understood as – **all the different activities that provide the information and advisory services that are needed and demanded by farmers and other actors in agriculture and allied sector.**

Agriculture Extension – As Commodity

Economic theory distinguishes between private and public goods. Two criteria, excludability and subtractability determine whether a good or service is closer to being public or private. Excludability means that those who do not pay for a good can be excluded from its use. Subtractability means that the use of a good by one user reduces its availability to other users. Goods which are both, excludable and subtractable to a higher degree are private goods; goods which are neither excludable nor subtractable are public goods.

A bag of fertilizer is an example for a private good, the air one for pure public good. Goods with high excludability and low subtractability are called toll goods (a park with an entry fee is an example, a pay – TV programme another one), whereas common pool goods are characterized by high subtractability, but low excludability (fish in the oceans are an example, as well as communal pastures and forests).

There is a continuum between the extremes of pure private goods, pure toll goods, pure common pool goods and pure public goods (the four corners of the diagram), and most goods are excludable and/or subtractable to a certain degree.

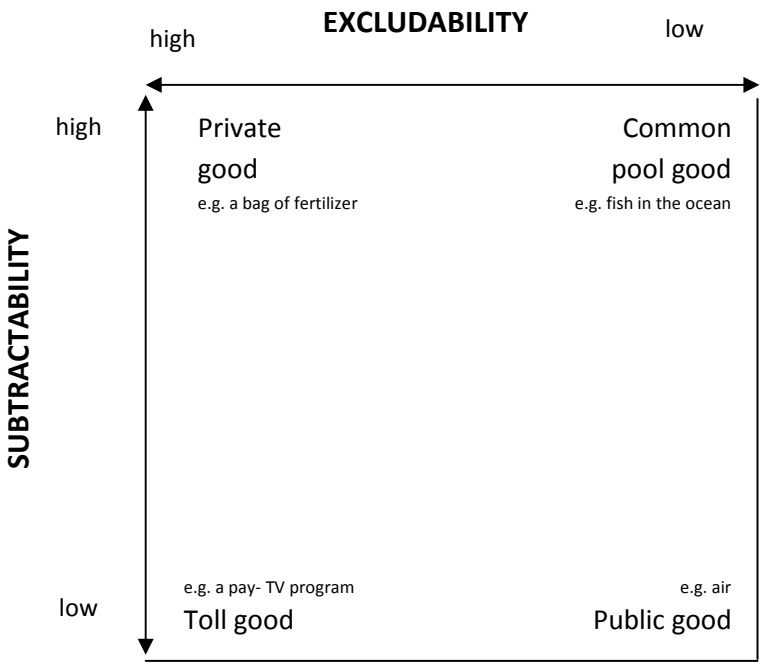
Private goods benefit the person who acquires them. Therefore people are willing to pay for them and the private commercial sector usually provides them, i.e. market forces regulate supply and demand well. Toll goods are provided by the private sector as long as free-riding can be minimized. Common pool goods require regulation to prevent overuse. Their management is often based on difficult political negotiation processes between all players that have a stake in it.

Pure public goods that are freely available for everyone are rare. Clean water, for example, that is commonly considered a public good, has become fairly subtractable in many areas and thus turned into a common pool good that needs to be regulated, or even into a private good, by piping it, and thus making it excludable. Goods that are to a high degree public are generally not provided by the private sector because people are not willing to pay for them, as non-payers benefit too.

For public and common pool goods market forces cannot work optimally. Not optimal means in this case that if left to the market forces, demand and supply will be less than desirable from the point

of view of benefit for broader society. For example, if supply and demand for education or health services are left completely to the market forces, many people may not be willing or able to send children to school, or invest in proper health care. But the broader society benefits from a generally high level of education and health, and virtually every society and country provide public resources for education and health. Any society can decide to use its public funds to turn apparently private goods into widely available public **goods or goods of public interest.**

Extension services are in economic terms goods and therefore the concept explained here applies as well.



Source: LBL, Swiss Center for Agricultural Extension (2002) attached in annex 3 The Concept of Private and Public Goods

j) Conclusion

Commercialization of agricultural extension becomes a reality today. Therefore, we cannot survive only with free of charge extension services which are mainly owned by the government sector. Today, most of new technologies are developed by research institutes and/or commercial firms by spending a large cost. So these products and services need to be promoted in a commercial basis which can be best done through commercial agriculture extension services. The sources of services and information are from different sources taking from public, private, civil society and semi-government agency to the individual too.

Annex 3: High Impact Commodity and Site Selection

This is the first step in Mercy Corps Agriculture Intervention in which we apply Value Chain Analysis and Yield Gap Analysis based on characteristics of smallholders.

Mercy Corps Nepal has adopted the Value Chain Analysis (VCA) tool developed by Action for Enterprise (AFE), a non-profit organization based in USA. For detail, it can be contacted in the address below: http://www.actionforenterprise.org/

A. Value Chain Analysis (VCA) – The process adopted are as follows:

Session 1: Value Chain Selection (Step 1): In this step, following review techniques is applied for identifying promising value chains. Illustrative selection criteria are reviewed including:

- Unmet demand in the market for particular products
- Potential for increase in household incomes
- Number of MSMEs in the value chain
- Potential for employment generation
- Existence of linkages conducive to inter-firm collaboration
- Potential for positive coordination and synergy with donors and government
- Representation of women in the value chain

Once criteria are established they can be used to compare different value chains. Those that rank the highest can then be chosen for more detailed analysis.

Session 2: Value Chain Analysis (Step 2): In this step, there should be a greater understanding of how to analyze market trends and industry dynamics including the roles of value chain participants and their inter-relationships. The goal of this step in the approach is to determine key issues hindering MSME growth and competitiveness.

After this process, the result must highlight the following things explicitly-

- Describe the objectives of carrying out value chain analysis.
- Describe different elements of value chain analysis:
    - value chain mapping
    - inter-firm relationships
    - governance structures
    - categories of value chain constraints
    - market trends and competitiveness
- Describe how value chain analysis fits into the larger framework of program design

Session 3: Identification and Selection of Market-based Solutions (Step 3): in this step, the process must be able to identify sustainable, market-based solutions *(potential at this point)* that can contribute to competitiveness of the targeted value chain and address the constraints and opportunities identified in Step 2. Techniques for identifying and prioritizing these market solutions are also presented.

It is anticipated that by the end of this process, the result must be able to:

- Identify sustainable market-based solutions that can help promote the competitiveness of targeted value chains
- Use a “Short-Listing Matrix" to narrow down selected market solutions for further assessment

Session 4: Assessment of Market-based Solutions (Step 4): In this step, the process must lead to assess the market-based solutions identified in Step 3. Areas of assessment include:

- identification of existing/potential providers of targeted market-based solutions
- constraints to the commercial viability of the targeted solutions
- satisfaction with and awareness of market-based solutions currently provided
- the number of MSMEs that could benefit from the market-based solution

The outcome of this process must be as follows:

- Describe the importance of assessing market-based solutions to value chain constraints
- Describe the basic elements that comprise the assessment of a market-based solution
- Describe the importance of assessing the commercial viability of a market-based solution
- Describe different techniques to collect information for solution assessments

Session 5: Identification and Selection of Interventions (Step 5): During this process, the action is related to different kinds of program interventions that can support MSME and value chain development.

By this process, the result should pinpoint the following items specifically:

- Describe guiding principles of value chain programs that seek to improve competitiveness and benefit MSMEs through sustainable market-based solutions
- Describe intervention strategies for value chain development programs
- Describe the importance of focus group discussions in identifying program interventions
- List criteria for selecting interventions

Session 6: Performance Measurement: The last process should present a framework for designing performance measurement systems for enterprise development programs. One should relate the current issues in monitoring and impact evaluation within the organization.

This process must explain the following points clearly:

- Describe why it is important to measure performance of value chain/MSME development programs.
- Describe at what levels performance should be measured.
- List examples of performance measurement indicators

B. Gap Analysis

Beside this, we can also apply the Yield Gap Analysis based on calculating the differences from Research Station Yield, Best Practices Yield and Actual Yield. The gap between best practices and actual yield is the ‘Extension Gap’ which our efforts should try to fulfill.

Both the above analysis should be based on full understanding of **the characteristics of smallholders**, which are listed below:

Land –	Size of cultivated land is relatively small (e.g. <2ha)
Labor-	Dependence on family members for most of the labor used
Technology –	Low level of technology, little access to know-how
Resources-	Limited resources (capital, skills, labor, risk management etc)
Production –	May produce subsistence or commercial commodities, with on-farm and off-farm sources of income
Capacity -	Limited capacity of marketing, storage and processing
Value Chain -	Are often vulnerable in supply chain

Annex 4: Stakeholder Meetings

A Stakeholder Meeting brings together entrepreneurs who are involved at various levels in a value chain with the general aims of:

- Expanding participants' understanding of the value chain
- Advancing the functioning of the value chain
- Creating Business Enabling Environment (BEE)

Stakeholder Meeting incorporates a clear 'action' purposed above and beyond its usefulness in project implementation.

When is a Stakeholder Meeting Appropriate?

Stakeholder Meetings enables the project team to guide the discussion towards common challenges and areas of mutual interest among the participants. Stakeholder Meetings are usually conducted after the team has refined the project purpose, determined and tentatively prioritized strengths and constraints, identified tentative sustainable solutions and begun to elaborate interventions. Stakeholder Meetings are then used to gather information helpful to developing further details of program design: validating prioritized strengths and constraints on which to focus, refining sustainable solutions, refining interventions, elaborating risk mitigation strategies and choosing initial program partners. The meetings are particularly useful for refining and generating new ideas for sustainable solutions and interventions.

Note that there is potential for conflict in Stakeholder Meetings. They should only be held if the benefits and risks have been adequately assessed. If good workshop facilitation cannot be provided in cases with a high risk of conflict between the different groups, it is better to look for other options to achieve the same results.

Step 1: Build a Facilitation Team

A Stakeholder Meeting brings together entrepreneurs who may view others in the chain with suspicion or even hostility. Therefore, the facilitation team must have excellent interpersonal and meeting management skills. In order to collect information and promote the development of a viable and improved value chain system, the team must be able to manage participants, mediate conflict (without stifling discussion of constraints), and achieve the objective of the project through effective communication.

Stakeholder Meeting moderators need to have the following skills:

- Good awareness of the culture and situation of the participants
- Ability to converse fluently in the local language of the participants
- Strong skills in communicating with participants from varied backgrounds
- Ability to establish rapport with participants from varied backgrounds
- Ability to effectively explain the purpose of the Stakeholder Meeting
- Capacity to mediate between entrepreneurs who may have different status within the value chain and society as a whole
- Skills in eliciting objective information using a variety of questioning and probing strategies, keeping in mind the differences amongst participants
- Active listening capacity
- Understanding of how the information will be used so that effective follow-up questions can be formulated during the meeting
- Ability to keep the meeting on track but also allow for uncovering unexpected information

Stakeholder Meeting observers need to have the following skills:

- Good awareness of the culture and situation of the participants
- Ability to converse fluently in the local language of the participants
- Understanding of how the information will be used so that effective follow-up questions can be formulated during the meeting
- Ability to keep track of what the meeting has covered, and to intervene to keep the discussion focused ensuring all required information is gathered
- Proficiency in documenting findings and learning

Step 2: Identify Participants

A typical Stakeholder Meeting involves 12 – 20 participants that represent a cross-section of the enterprises in the value chain. If fewer than 12, the value chain may not be well-represented or include enterprises with varying viewpoints. If more than 20, it is more likely that a few participants will dominate, and it becomes more difficult to keep the meeting focused on the objectives. The selection of actual participants is based on the goals of the meeting and which combination of entrepreneurs and other stakeholders will best serve objectives.

Step 3: Determine the Number of Stakeholder Meetings

Generally, organizations only conduct one or a few Stakeholder Meetings. If the value chain can be adequately represented in one meeting, there is no need to conduct more. However, more than one meeting may be necessary to get the viewpoints of a wide enough range of value chain enterprises and other stakeholders if the value chain is large or spans a large geographical area.

Step 4: Select a Time and Place for each Stakeholder Meeting

Stakeholder Meetings generally last from 2 hours to several days. The length depends on what you aim to accomplish, cultural norms and for how long participants will want to meet. If participants are all nearby, a shorter meeting of 2-4 hours is usually appropriate. If participants have come a long way, they may want to meet for a full day to accomplish more and justify the trip. Inform participants in advance of how long you expect the meeting to last.

Step 5: Invite Participants and Arrange Logistics

It is essential to invite participants to a Stakeholder Meeting in advance and to inform them of the nature and objectives of the meeting before they arrive. Participants can be invited by visiting them at their houses or places of business, through phone calls or written invitations as appropriate.

In order for the Stakeholder Meeting to run smoothly, all logistics should be planned in advance. This might include, for example, arranging the venue, seating, snacks, transportation and recording device.

Step 6: Prepare a Discussion Guide

A clear discussion guide will enable the facilitation team to help participants feel comfortable, and efficiently and effectively cover all the research questions. A guide will also assist the moderator and observer to direct discussion towards areas of common interest, avoid conflicts among the participants, and achieve action-oriented objectives for the meeting. The guide outlines how the discussion will be conducted from start to finish, including the introduction and wrap-up, and

provides an approximate time for each part of the discussion. The body of the guide is made up of the Stakeholder Meeting questions which the moderator will ask the participants to explore.

Step 7: Reporting and Record keeping sharing to all

Annex 5: Group Formation

A) Understand group and their properties

What is a Group?
The word meaning of 'group' is –'a number of things or people together'. But it is not complete picture. A collection of individuals whose existence as a collection is rewarding to the individuals can be called a group. Things are more precise if we do introduce a broad qualification and focus upon groups found in a work environment.

Work Group
A work group have a common task (or a set of individual tasks) which tends to be explicit, relationship are functional, existence to work certain task, leadership tends to go with competence and the group may be temporary or transform into long lasting institutions. So a collection of people is clearly a work group when it possesses most if not all of these characteristics:

- A definable membership – a collection of two or more people identifiable by name or type
- Group consciousness – the members think of themselves as a group, have a collective perception of unity, a conscious identification with each other
- A sense of shared purpose – the members have the same common task or goals or interests
- Interdependence – the members need the help of one another to accomplish the purposes for which they joined the group
- Interaction – the members communicate with one another, influence one another and react to one another
- Ability to act in a manner – the group can work as a single organism

Work Group Properties

a) Background

Each group has a historical background, or lack of it, which influences the way it behaves. The members of a new group assembling for the first time may have to devote much of their energy at first to getting acquainted with one another, and deciding what needs to be done and how to do it. A well established group, on the other hand, will be better acquainted with the situation. They may be assumed to know what to expect from each other and how to define the group's task.

Member come a meeting of a new group or team with some expectations. They may have clear idea of what it is about, or they may be uncertain about what is going to happen. They may be looking forward to being or indifferent. In some cases, the boundaries around the group's freedom of action may be tightly drawn by its terms of reference, or so poorly defined that the group doesn't know what its boundaries or limits are. The history of the group in terms of its past successes and failures – its record in pursuing common objectives – is a central ingredients in group background, relating as it does to group morale. A crucial factor in group is therefore the amount of time that has been spent together. It takes time for a group personality to take a shape.

b) Participation Pattern

In the snapshot of any particular moment, a particular participation pattern can be observed in every group. For example, it may be all *one way* traffic, with the leader or some other member conducting a monologue; or it may be *two-way*, with the leader talking to members and members responding to him/her or it may be *multidimensional*, with all members talking to one another and to the group as whole. In any group, one can notice that one of these patterns tends to be prevalent over a period of time.

c) Communication

How well do group members understand each other's meanings: how clearly are they communicating their ideas, value and feelings? If some members, for instance, are using a highly specialized technical vocabulary they may be talking over the heads of the rest of the group members. Communication in a group will be greatly enhanced if each member is skilled in speaking, listening, writing and reading.

d) Cohesiveness

The cohesiveness of a group is determined by the strength of the bonds that bind the individual parts together into a unified whole. It is sometimes referred to as the 'we-feeling' of a group – the extent to which members talk of 'we' and 'us'. The most important factors for group cohesiveness are physical proximity, similar work, homogeneity, personality, size and communication.

e) Atmosphere

It is an intangible thing; it is usually fairly easy to sense. It is often referred to as the 'social climate' of the group, with such characteristics as 'warm, friendly, relaxed, informal free' in contrast to 'cold, hostile, tense, formal, restrained'. Atmosphere affects how members feel about a group and the degree of spontaneity in their participation.

f) Standards

Every group, if it is together for some time, develops a code of conduct or set of standards about what is proper and acceptable behavior. These include such subjects as what matters may be discussed, what is taboo (such as religion or politics); how well members listen to each other's opinions; how far it is proper to volunteer one's services; the length and intensity of work that's considered right and fair; whether or not pilfering is permissible, and many more 'do's and don'ts'.

g) Structure and Organization

Groups have both a formal and an informal organizational structure. The formal structure, which might be highly visible, represents the division of labor among members so that essential functions are performed. Structure in work groups ought to be directly related to the common tasks. In so far the needs of the tasks are changing, so structure should be flexible or malleable to alternation.

B) Group Formation Criteria

a) Define the criteria in terms of poverty, gender, inclusion and remoteness.
b) Define roles and responsibilities of the group and members
c) Partnering for subsidiary partners and information sharing
d) Try to understand the group dynamics and development processes

Annex 6: Technical Services

In this step, the technical capacities of farmers and related people are enhanced through Farmer Field School (FFS) extension approach on selected high impact commodities.

What is a Farmer Field School?

Farmer Field Schools (FFS) is described as a platform and "School without walls" for improving decision making capacity of farming communities and stimulating local innovation in farming.

FFS aims to increase the capacity of groups of farmers to test new technologies in their own fields, assess results and their relevance to their particular circumstances, and interact on a more demand driven basis with the researchers and extensionists looking to these for help where they are unable to solve a specific problem amongst themselves.

Objectives of FFS

The general objective of FFS is to bring farmers together to carry out collective and collaborative inquiry with the purpose of initiating community action in solving community problems where as the specifics are as follows:

1) To empower farmers with knowledge and skills to make them experts in their own fields.
2) To sharpen the farmers ability to make critical and informed decisions that render their farming profitable and sustainable.
3) To sensitize farmers in new ways of thinking and problem solving
4) Help farmers learn how to organize themselves and their communities.

Principles of Farmer Field Schools

In FFS, emphasis is laid on growing crops or raising livestock with the least disruption on the agro-ecosystem.

The training methodology is based on learning by doing, through discovery, comparison and a non-hierarchical relationship among the learners and trainers and is carried out almost entirely in the field **.**

The four major principles within the FFS process are:

a) Grow a healthy crop
b) Observe fields regularly
c) Conserve natural enemies of crop pests
d) Farmers understand ecology and become experts in their own field

FFS curriculum

A corner stone of the FFS methodology is agro-ecosystems analysis (AESA) which is the establishment by observation of the interaction between a crop/Livestock and other biotic and abiotic factors co-existing in the field. Participants work in sub groups and learn how to make and record detailed observations including:

° Growth stage of the crop
° Insect, pest and disease
° Weeds and wildlife
° Weather conditions
° Soil condition
° Overall plant health.

Beside above FFS observation processes, very special interactive training can be designed to impart in the field condition by experts. Up to now, following specific training are catered by Mercy Corps project team –

a) Cultivation Methods
b) Diseases Management
c) Harvesting Techniques

These training are conducted applying methods:

a) Field-based demonstration
b) Mentoring in the farmer's field
c) Training
d) Exposure visit

All of technical training is guided by Good Agriculture Practices (GAP) and Farmer Field School (FFS) keeping in view of environmental and production system sustainability.

In FFS, there are two levels of technology use:

a) General improvement services – It is general practices of improvement with few inputs use like seeds, techniques of cultivation and timing.
b) Specialized technical services – It is specialized services with the change of inputs (seed, fertilizers, cultivation methods, timing, irrigation, plant protection, harvesting techniques and fulfilling the marketing requirements like moisture content, grading, packaging and transporting in bulk). But sometime only few specialized services – knowledge, skills and information may work.

Annex 7: Farm Business Management

A) Background

Farm Business Management comprises of three words: 'Farm' means a piece of land where crops and livestock enterprises are raised with specific boundaries, 'Business' meaning related to be busy either as an individual or society as a whole, doing commercially viable and profitable work, and 'Management' means the act or art of managing. So the art of managing successfully, as measured by the test of profitableness, is called Farm Business Management.

In short, Farm Business Management is called a science of decision-making or a science of choice. It is to be emphasized that managing a farm is a continuous process of decision-making.

Farm Business Management has got two major components of resources management – natural resources and knowledge resources.

a) Natural Resources – These are the boon of the nature like land, soil and water etc. These are not made of human efforts. As applied to Nepalese context, these resources are scarce and so majority of the farms are run at small scale. These vital resources are -
   1. Land – For the farm business, farmer can purchase the land or rent it. Farmers can have his/her own land around house allocating for different enterprise like fruits, livestock, and cereal and fodder cultivation. But in some places, farmers are also using community lands.
   2. Water – Water is essential resource for farm cultivation. Waterfalls, dam, well and river or rainwater harvested can be used for irrigation. Water can be accessed from own farm land or it can be accessed from communal sources.
   3. Labor – It is hard work of human-beings. All sorts of farming business need human hard works. For the Nepalese farmers, there are three sources of labor- i) farm family members ii) hired labor and exchanged labor in Nepali "Parma". Based on farmers' situations, farmer can utilize any of them.
   4. Capital – Resources generated due to human hard labor is capital. Land improvement and labor use combined can make land more productive. Sometimes, land improvements, tilling, irrigation and drainage, small dam construction, water collection and canal construction etc can improve the productivity of the land. Capital can be fixed and variables one.

b) Knowledge Resources – These are the resources required and used for the successful raising of farm businesses. There are two types of knowledge resources available to the Nepalese farming communities. They are –
   1. Indigenous technical knowledge – These are ascribed knowledge and skills with due course of time in farm business practices gained by the farmers. These are location specific and not verified scientifically. But still they are in practice in far flung rural areas by certain communities and contributing to honing knowledge base.
   2. Improved/specialized technical knowledge – These are tested, verified knowledge and information system and used in improving the current farm businesses. It has got three levels of practices as research station results, best practices results and actual practices results. So the farm business extension must address the gap between best practices and actual practice results.

B) Roles

Farmer as a Farm Business Manager, he/she has to play dual roles: a) Producer and b) Marketer

a) Producer – First and foremost thing of farmer is to grow crop and raise livestock successfully. He/she has to carry all the farm operation regarding crop and livestock

systematically and timely. Here the primary function is to minimize the risk and raise healthy.

b) Marketer – As a marketer, farmer has to handle skillfully in getting inputs and services and output marketing efficiently. Because the ultimate objective of the farm business is to get profit which is only possible being effective and efficient marketers.

In both the cases, the farmer has to make strategic and operational decision. The strategic decision involves heavy investment and has long lasting effect where as operational decisions are continuously made in the day-to-day operations of the farm business. The operational decisions are like what to produce? How much to produce? How to produce? When to produce? When, where and to whom sell the produce? Etc.

In summary, Farm Business Management is the management of scarce available resources for profit maximization. So for good result to obtain, farmers need to have skills to combine those available resources. Because farming business is fiercely competitive, farmer need to improve the managerial skills.

C) Managerial Functions

With the changing environment, it will be helpful to farmers to become effective manager by adopting following points in sequences:

1. Analyze (A) -Identify problem and opportunities based on current situation analysis for profit maximization.
2. Plan (P) - Put systematically everything into a realistic plan based on setting some rules and regulation to make concrete decisions.
3. Implement (I) - Planned activities need to implement purchasing all the necessary inputs
4. Review (R) – Supervise all the activities and performance of the each enterprise, and evaluate based on profit maximization objective.

APIR is the simple formula to put into practice. Based on APIR results, farm business can be assessed for its successful running of the farm business.

D) Traits of Successful Farmers

i) Healthy in terms physically and mentally to work on the farm
ii) Essential public relation for information collection
iii) New thinking and knowledge in farm business
iv) Capable to take risk

E) Typical Characteristics of Farming As A Business – Farming As A Business has many distinguishing features from most of other industries in their management methods and practices. Farm Business Management principles cannot be therefore, taken as a single application of principles involved in managing other enterprises as well. The major differences between farming and most other industries are in:

a) Biological nature of products – Farm products are primarily biological in nature. Farming deals with living enterprises (crops and livestock). A slight change in the environment may, therefore, causes serious difficulties. And another is, farming requires far large proportion of land in relation to other factors of production than does industry.
b) Size of the production unit – Farming is, comparatively a small-sized business and thus provides little scope for division of labor. The farmer is generally both laborer

and capitalist since he/she works on the farm, on which all his accumulated wealth and annual savings get invested.

c) Heavy dependence on climate factors – Weather is a very important, but unpredictable factor in all farming operations. Farming is, thus subject to a great risk and uncertainty on account of changing weather condition like rainfall, draught, hail storm, floods and diseases-insect outbreaks.

d) Changes in price – Farm prices and production usually move in opposite direction. Because of the effects of climate and biological factors, a relatively large volume of production of a given farm commodity is usually followed by a decline in process; and a smaller volume results in increase in price.

e) Time rigidities in consumption of agricultural products – Farm products are generally perishable in nature. It is not easy to postpone their utilization. Partly as result of this, and partly because of the small scale individual productions, the market intermediaries between the producers and the final consumers assume a place of particular importance. The share of the producer in consumer's money, therefore, goes low in case of agricultural products.

F) Farm Business Analysis Decision Tools

In general, Nepalese farmers possess small unit of farm size and to make best use of it during intervention, it is worthwhile to take into consideration of using useful tools which can be used or can be understood by smallholders in effective manner. So here is some of the business analysis tools, which will be best elaborated along the example of enterprise budget.

1) Cost of Production – It is the term used to describe the average cost of producing one unit of the commodity. The cost of production equation for a crop enterprise is:

$$\text{Cost of Production} = \frac{\text{Total Cost}}{\text{Yield}}$$

The cost of production will change if either costs or yield changes. Cost of production is a useful tool particularly when marketing the product.

2) Profit – Loss Analysis – It is the total income deducted from total expenses. It is useful at the end of enterprise analysis whether enterprise is profitable or in loss.

Profit = (Total Income – Total Expenses)

3) Balance Sheet – It is a statement of asset and liabilities.

4) Cash Flow – It is the point of cash in-coming and out-going over a period of time.

Activities	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Cash In Flow (Rs)												
Cash Out Flow (Rs)												
Balance												

Break-Even Point (BEP) – It is a point in a business after which the farmer would be able to cover all the production cost and start making a profit, that is, the Break-Even Point. This is the break-even point at which neither profit is made nor loss incurred. The total costs of the farm enterprise would be the same as the gross income.

Break Even Analysis

$$\text{Break Even Yield} = \frac{\text{Total Cost}}{\text{Output Price}}$$

This allows you to know when the farm will start to be profitable. So this is the yield necessary to cover all costs at a given output price.

$$\text{Break Even Price} = \frac{\text{Total Cost}}{\text{Expected Yield Price}}$$

This is the output price needed to just cover all costs at a given output level.

1) Return on Investment (ROI) – It is return as income or profit after investment in the enterprise. This is expressed in percentage as follows:

$$\text{Return on Investment} = \frac{\text{Profit}}{\text{Expenses}} \times 100$$

2) Pay back period - It is time period to pay back return on investment.

$$\text{Pay back period} = \frac{\text{Expenses}}{\text{Monthly Benefits}}$$

3) Depreciation Cost – *It is* a term used to account for the loss of value in an item over time.

   Depreciation Cost = Total Cost of the Material/Expected Life of Material (Straight Line Method)

G) **Example from Enterprise Budget** – An enterprise budget is an organized list of estimated income and costs, which can be used to determine the expected net income for a particular enterprise. An enterprise budget can be calculated on a per unit basis, such as an acre of land or head of livestock, for 1 year or one production period.

   An enterprise budget typically includes sections on gross income, production costs (variable and fixed costs) and net income.

Gross Income
Gross income consists of the level of output and price per unit of output. Estimate gross income for an enterprise can be obtained by multiplying the amount of expected output by the price per unit of output.

Variable Costs
Variable costs are dependent on the level of output produced. They include items such as seed, fertilizer, lime, fuel, lubricants, chemicals for weed, disease and insect control, purchased feed, veterinary services and medicine, repairs, interest on variable capital and others. To simplify cost estimates, indicate the units, quantities and prices associated with the individual expenses.

Some costs are easier to estimate than others, such as those of seed, fertilizer and chemicals, since the farmer knows exactly how much he/she needs and the prevailing market prices. Other costs, including labor, repairs, and machinery operating costs, depend on the size and types of machine used and are more difficult to estimate.

Fixed Costs
Fixed costs are those costs incurred regardless of whether or not output is produced. Building and machinery fixed costs include depreciation, interest on average investment, and some repairs, taxes and insurance. These costs may be difficult to estimate since they need to be allocated to the various enterprises produced on the farm. Also, fixed costs depend on conditions associated with the use of fixed inputs (e.g. size, type, number, new or used machinery, field operations and hers).

It is essential when starting a business to know the break-even point because the enterprise needs to be profitable as soon as possible.
The break-even point can be calculated for both yield and prices. Using the cost information in Table 1, the farmer can perform a break-even analysis for prices and yields.

Table -1- Example of an Enterprise Budget for Maize (1 Hectare)

Item	Unit	Quantity	Price $	Amount $
Revenue				
Maize Grain	Ton	2.50	80.00	200.00
Total Revenue				200.00
Variable Costs				
Seed	Kg	84.00	0.25	21.00
Fertilizers	Kg	77.00	0.30	23.00
Nitrogen	Kg	35.00	0.10	3.50
Phosphorus				19.00
Chemicals				10.00
Machinery Expenses				6.00
Crop Insurance				2.00
Labor (Hired)				7.00
Other Cost				17.00
Interest @ 20% for 9 months				
Total Variable Costs				108.50
Gross Margin				91.50
Fixed Costs				
Machinery depreciation				10.00
Fixed Labor				13.00
Land Charge (Rent)				15.00
Investment Costs (machinery)				8.00
Storage Costs				3.00
Total Fixed Costs				49.00
Total Costs				157.50
Profit		**42.50**		

a) Break-Even Yield

Break-Even Yield allows one to know when the farm will start to be profitable.

$$\text{Break-even yield} = \frac{\text{Total costs}}{\text{Output price}}$$

This is the yield necessary to cover all costs at a given output price.

Using the example in Table 1:
Total costs (fixed + variable) = $ 157.50 /hectare
Output price = $ 80/ton
Break-Even Yield is = 157.5/80 = 1.97 tons/ha

Since the output price is only an estimate, it is often useful to compute the break-even yield for a range of possible prices is shown below:

Output Price/ton	Break-even yield (tons)
40,00	3.94
50,00	.15
60,00	2.63
80,00	1.97
90,00	1.75

This often provides some insight into how sensitive the break-even yield is to changes in the output price.

b) Break-Even Price

The break-even price is the output price needed to just cover all costs at a given output level, and can be found from the equation:

$$\text{Break-even price} = \frac{\text{Total costs}}{\text{Expected yield}}$$

Using our example again, the break-even price would be $157.5 divided by 2.5 tons is equal to $63.00. **Note** that the break-even price is the same as the cost of production. They are only two different ways of looking at the same value.

The break-even price can also be computed for a range of possible yields as in the following table. Different yields cause different break-even prices (and cost of production), and these prices can vary widely depending on the yield level:

Yield (ton)	Break-even price ($)
1.0	157.50
1.5	105.00
2.0	78.75
2.5	63.00
3.0	52.50
3.5	45.00

Since both the costs and the yield and output price in an enterprise budget are estimated rather than actual values, the calculation of break-even points, yields and prices can aid managerial decision-making. By studying the various combinations of the

break-even point, yields and prices, farmers can form their own expectations about the probability of obtaining a price and a yield that would just cover total costs. Break-even points prices and yields can also be calculated from total variable costs rather than total costs.

Enterprise budgets can be used to compare the profitability of alternative enterprises and are particularly useful when developing a whole farm plan.

ENTERPRISE BUDGET- Example in Ginger Crop in One Ropani Land (500 Sq. M.)

A) Address:
Name of Farmer:
VDC:
District:

B) Name of the Crop: Ginger Variety: Bose (Low-fiber)
C) Assumption

1. Altitude: ------- Meter
2. Soil type Light/Medium/Heavy
3. Drainage Good/Bad
4. Soil pH Acidic/Normal/Alkali
5. Fertility Low/Medium/High
6. Rotation Ginger – Maize
7. Land Size Ropani…….
8. Land Own/Rent
9. Labor Family/Hired

I. RETURNS

Item	Unit	Quantity	Price NRs	Amount NRs
Revenue				
Bruni Ginger	Kg	180	50	9,000.00
Fresh Ginger	Kg	1200	35	42,000.00
Total Revenue				51,000.00

II. CASH EXPENSES

Item	Unit	Quantity	Price NRs	Amount NRs
A. Variable Costs				
Seed	Kg	200.00	60.00	12,000.00
FYM	Doko	75.00	30.00	2,250.00
Mulching materials	Bhaari	2.00	50.00	100.00
Plant Protection	Gram	1.00	350.00	350.00
Labor (Hired)				
Land Preparation and Planting	Person days	8.00	200.00	1600.00
Weeding and Plant Protection	Person days	9.00	200.00	1800.00
Harvesting and Transportation	Person day	5.00	200.00	1000.00
Depreciation /Interest	-	-	-	2715
Total Variable Costs				21,815.00
Gross Margin				29,185.00
B. Fixed Costs				
Tools depreciation				100.00
Fixed Labor				900.00
Land Charge (Rent)				900.00
Storage Costs				900.00
Total Fixed Costs				2,800.00
(A+B) Total Costs				24,615.00
Profit (I.RETURN) – (II.CASH EXPENSES)				**26,385.00**

Annex 8: Marketing Service

This step deals with following topics which are important to realize the overall objective of project i.e. increased INCOME. The income can only be realized when the smallholders can sell their produce in profitable price. These topics are – A) Basic concept B) Marketing Process C) Market Mapping D) Key Features of Agriculture marketing E) Market Information System F) Farmer Marketing School (FMS).

A) Basic Concept

What is a market?
A *place* where buyers and sellers come together to buy and sell goods and services is called market. Market places vary in their location and functions:

Assembly markets: These are rural markets where farmers and small collectors come to sell agricultural products to larger traders and agro-processors.

Wholesale markets: These markets tend to be located in towns and cities, or in their vicinity. Their main role is to gather supplies from different production areas for subsequent distribution to urban areas or for export.

Retail markets: Retail markets can be found everywhere – in villages, in small towns and in cities. Some are held daily whereas others open at certain days of the week.

Markets as demand
A market can also be defined as the demand for a product or a service. In other words, a market can be regarded as a group of people who have certain needs and are willing to spend money in order to satisfy those needs.

Market segments
The market (demand) for a particular product is not homogeneous. People do not have the same needs and preferences; they demand different things. One way of making sense of demand is to divide the market into different groups of buyers, each with similar needs and preferences. Each separate group forms a market segment. Group of buyers with similar needs and preferences is referred as market segment. Market segments include consumers with some common features – age, gender, religion, location, income and so on.

What is demand?
Amount of a particular product or service, which buyers are willing and able to buy at different prices is called demand. Demand is not static but constantly changing.

What is supply?
Amount which producers and market intermediaries are willing and able to provide at different prices. The supply of agricultural products tends to be more volatile than the demand for these same products because of the strong influence that natural conditions have on production levels.

Prices
Prices are largely determined by supply and demand. Prices can fluctuate significantly, even during one single day. If large quantities of a certain product suddenly arrive on the market, a typical situation during the harvesting period, prices will fall. When there is a shortage of supplies in the market, for example because of a failed crop, prices will rise. During festivity periods demand for

food expands, fuelling an increase in the price of many agricultural products.

Knowing what is happening with demand and supply is essential to understand not only short-term and seasonal price variations but also longer-term price trends. Knowledge of supply and demand may even enable farmers to anticipate future price changes.

B) **Marketing Process**

There are many possible definitions of marketing. According to one definition, marketing consists of all activities involved in moving a product from the point of production to the point of consumption. In other words, marketing are those activities linking producers and consumers. As such, marketing ensures that products are available for consumption: in the right **place** , in the **form** wanted, in the **quantities** and **quality** required, and at the **time** needed.

This definition implies that there are a number of sequential elements or activities in agricultural marketing. Typical agricultural marketing activities include the shelling, drying, cleaning, sorting, grading, processing, packaging, labeling, transport, storage, advertising and selling of agricultural products. These activities add value to agricultural products. Some may be performed on farm, but most are carried out off-farm by traders and agro-processors.

What is marketing?

All activities involved in moving a product from the point of production to the point of consumption. According to this definition, marketing consists of identifying customer needs and satisfying such needs at a profit. In this definition, which is particularly relevant to farmers and agro-enterprises, emphasis is given to the fact that:
i. marketing is a customer-oriented and profit-driven process;
ii. successful marketing is based on long-term, mutually beneficial relationships between suppliers and customers.

C) **Market Mapping – Market Intermediaries**

Farmers occasionally sell directly to the consumer, but as discussed this is not the norm. Most often, their products change hands several times before reaching consumers. The people who are directly involved in moving products from the farm to the consumer or end user are called market intermediaries. Below we introduce four types of market intermediaries that can be commonly found:

Collectors: These are small local traders who buy directly from dispersed farmers. Their main function is to assemble local products for subsequent sale to larger traders and processors operating within the region. Collectors have limited capital, trade small volumes and use simple means of transport, such as motorbikes. Larger collectors may own or rent small trucks.

Wholesalers: Wholesalers deal with much larger volumes than collectors and rent or own medium to large vehicles. They also tend to rent or own storage premises. Wholesalers procure most of their supplies from smaller traders or processors, but some also buy directly from farmers. The main function of wholesalers is to supply retailers in towns and cities. Many also supply processors and other large traders, including exporters.

Agro-processors: Agro-processors are those individuals and firms involved in the transformation of agricultural commodities (e.g. rice millers, cassava starch factories and animal feed manufacturers). Processors can be very small household enterprises or fairly large firms, employ traditional or modern technologies, and may be located in rural or urban areas.

Retailers: The main function of retailers is to distribute supplies to consumers. Retailers are very diverse in size and operation. For example, supermarket chains are fairly large companies that deal with significant volumes of a vast range of agricultural products. In contrast, small shops and market vendors sell much smaller volumes and fewer goods, and do not keep sizeable stocks.

Supply chain

Supply chain is a term used to describe the multiple distribution or market channels through which a product moves until reaching the consumer. Farmers rarely sell their products directly to consumers. Once they leave the farm, products normally change hands several times (go through different market channels) before being delivered to final consumers.

Marketing costs

All marketing activities generate costs. These costs vary widely across agricultural commodities, depending for example on the extent of processing or the distance between production areas and consumption centers.

D) Key Features of Agricultural Markets

Agricultural markets have specific features that distinguish them from markets for industrial goods and services, including:

Short-term price volatility

The price of agricultural commodities can change significantly within the same month, week or even day. These changes are associated with fluctuations in supply and demand. Perishable produce is particularly prone to price instability because it cannot be stored for long periods. A sudden arrival of large amounts of fresh produce, or an accumulation of unsold stocks, will cause a glut in the market and drive prices down. Short-term price instability often makes it difficult for farmers to anticipate the price they will receive for their products. Will this be the same as last week or last month? Will it be higher? Have prices fallen temporarily, in which case it might be better to wait a couple of weeks before selling? Or should farmers take advantage of a sudden increase in prices which is unlikely to be sustained for long? Regular consultation of traders and agro-processors can provide some answers to these questions and help farmers decide when to sell.

Price seasonality

The price of many agricultural products follows a clear seasonal pattern. This is often associated with the fact that supply is concentrated during certain periods of the year. During harvest, supply is abundant and prices are low, rising over time as supplies become scarcer. However, for products with a relatively stable supply, prices do not vary significantly throughout the year. Below are four factors which can have a stabilizing effect on supply and prices:

i) multiple and long harvesting seasons;
ii) diverse harvesting calendars within the country;
iii) availability of off-season imports from other countries; and
iv) Demand also influences price seasonality. There are specific periods of the year when prices change due to seasonal variations in demand.

High inter-annual price variations

Another common feature of agricultural markets is that prices can change considerably from one year to the next. These price fluctuations reflect changes in supply and demand. Supply can be particularly volatile due to agriculture's dependence on weather conditions and vulnerability to

drought, floods and pest or disease infestations. Farmers' reaction to changes in prices may exacerbate market volatility. For example, a rise in the price of a commodity may lead to an expansion of cultivated areas and an intensification of production, which may then result in over-supply and falling prices. The inverse can happen when farmers reduce planting areas and input use in response to falling prices.

High risk

Agricultural marketing is a risky activity. Producers may find that the market price at the time of harvest does not cover production costs or is much lower than anticipated, while traders may be unable to sell their stocks for a profit. Good access to market information can reduce but not eliminate these risks. Farmers and traders also face the risk that their product will be rejected or sold at a discount because of poor quality. Sometimes the product is of poor quality the moment it leaves the farm. Other times it deteriorates or gets spoiled during transport, handling and/or storage. Insect infestation, bruising and physical deterioration are common forms of product losses. Another frequent risk incurred by traders is the possibility that the purchased product may contain undetected foreign matter. Cases of farmers selling agricultural products mixed with sand, stones and other foreign matter are not uncommon. What farmers often fail to realize is that buyers who have had bad experiences because of poor quality or cheating will either stop purchasing from the area or will continue buying but at lower prices than they would normally be willing to pay.

High marketing costs

Prices paid by end users and final consumers are normally well above those received by farmers. This often leads to the conclusion that traders and processors are earning excessive profits at the expense of farmers, although such perceptions are rarely supported by data about the actual profits made along the supply chain. When such data are available, marketing costs often emerge as a more valid explanation for the spread between producer and retail prices. For example: assembling agricultural produce from small-scale, dispersed and often remote farmers is costly; agricultural products often have to be transported over long distances and difficult roads before reaching the consumer; along the way, produce needs to be cleaned, dried, sorted, packed and advertised in order to be acceptable to consumers; more complex forms of processing are sometimes required; additional costs may be incurred because of storage; and product deterioration and spoilage are common.

Incomplete information

Farmers generally have limited knowledge and understanding of how markets operate and insufficient information about supply, demand and prices. This limits their ability to target remunerative opportunities, meet buyer requirements, and negotiate favorable prices. Although better informed than farmers, traders and agro-processors may also lack access to critical information. Insufficient knowledge of production areas inflates collection costs. Poor access to market information generates risks while at the same time limiting the ability of traders and processors to target remunerative markets and adjust to changing market conditions. Both types of information failure have a negative impact on demand for farmers' produce and the prices they receive.

Intense competition

Domestic and export markets for agricultural products are characterized by intense competition. Competition exists at all levels of the marketing system, and comes from domestic sources as well as from other countries. Understanding competition provides essential insight into the problems and opportunities faced by farmers and market intermediaries.

Low price elasticity of supply
Generally speaking, the supply of agricultural products is not very responsive to prices, at least in the short-term. It takes time for farmers to adjust production in response to changing prices. For example, if a decline in the price of a specific commodity occurs after planting, farmers will not be able to respond immediately by reducing cultivated areas. The only option available to them will be to reduce input use. Or prices may be rising, but farmers will need to wait for the right moment to plant and it may take time before harvest, especially in the case of tree crops. Producers may also have limited arable land and labor and lack access to the technologies that would enable them to expand production, such as improved varieties, irrigation, and agro-chemicals.

High price elasticity of demand
Unlike supply, demand for most agricultural products is very sensitive to changes in prices. Often final users and consumers have several product options and are therefore able to shift from one product to another. For example, when the price of cotton goes up, a garments' factory can increase production of clothes made of synthetic materials and reduce its purchases of cotton lint.

Long-term decline in real prices
The real price of agricultural goods is known to decline over the long-term. Such decline is generally more pronounced in the case of traditional export commodities, such as rice, tea, sugar, cotton, coffee and cocoa. In order to cope with a secular decline in agricultural commodity prices, farmers must adopt a combination of strategies, which may include:
i. reducing average production costs through productivity gains;
ii. adding value to production (e.g. through improved cultivation and post-harvest practices, processing and labeling);
iii. diversifying towards high-value, high-growth market segments (e.g. organic or fair trade);
iv. diversifying towards agricultural products which enjoy more favorable long-term demand and price trends, such as fruits and vegetables.

E) What is market information?

This is defined as "information about the buying and selling of agricultural inputs, services and outputs"

Market information is important, because of following reasons:

1) Market information can help farmers take production and marketing decisions:
2) What and how much should be produced?
3) Should new crops be grown?
4) Should certain crops be produced during the off-season?
5) Which varieties should be planted and where can these be bought?
6) Which post-harvest activities should be performed?
7) Is storage profitable?
8) Where production should be sold?
9) Who should it be sold to?
10) Is it worthwhile marketing together with other farmers?
11) How to negotiate with buyers?

F) Farmer Marketing School (FMS)

The Farmer Marketing School (FMS) is rooted with FFS for learning and selling the products in the market. In Farmer Field School (FFS), where bio-physical analysis is done to grow the most suitable crop with respect to biological requirements matching with physical sets available like temperature, soil, rainfall and other physical factors. The overall objective is to grow healthy crop with higher productivity as close as possible to natural cycle of cultivation. It is also considered to minimize the

risk of crop failure from diseases and insect attack, maintaining soil fertility status and meet the market demand as per need of consumers.

In case of FMS, farmers are exposed to the basic concept of market, related terms, market requirements and products design for the market. During the course, farmers are organized into groups, class lecture is given for theoretical bases, and then farmers are taken in the market meeting different actors like collectors, wholesalers, processors, exporters, retailers and consumers. Then again farmers comeback to the class and interact in the group for developing market plan. Farmers are also exposed different forms of MIS, crop seasonality and market requirements of different agriculture crops.

Contents of FMS - Curriculum

I. Basic concepts and terms
II. Marketing Analysis
III. Production Cost and Marketing Cost
IV. MIS, Networking and Linkages
V. Post Harvest Handling – pre-harvest, harvest, grading, storage, packaging and Transportation
VI. Sales Activities, Data recording and Reporting
VII. Market Plan

The FMS is given as Training of Trainer (ToT) to the selected leaders and later the leader imparts training to their respective groups members.

Methods and Tools

1. Class lecture
2. Groups discussion
3. Field Visit
4. Market Actor Interaction
5. Experiential Learning
6. Business Plan Preparation
7. Record Keeping

Durations

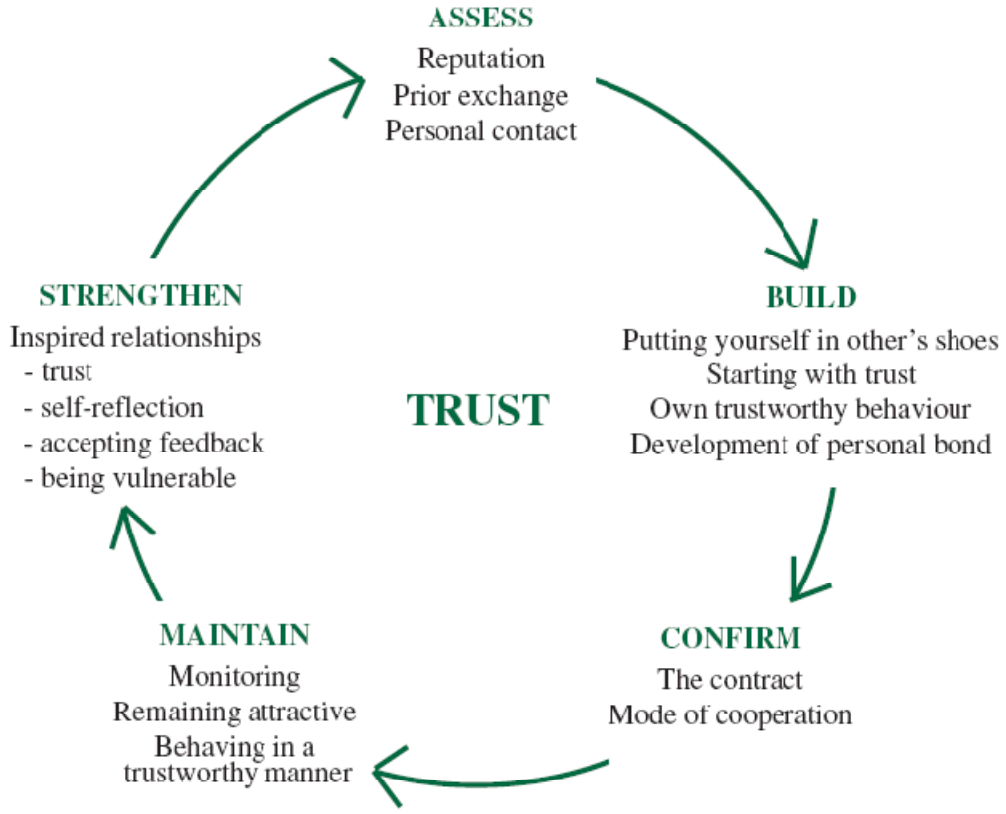
Three Days – after every agricultural harvest seasons

Annex 9: Business Linkages

Strong business relationships are key to the success of any value chain initiative. Building and maintaining these relationships takes time, effort and some skills. This step provides to build the relationships along the value chain.

Characteristics of Strong Business Relationships

Trust
Trust is developed as we get to know and understand our business partners and their actions become predictable. Trust is built through reputation, past experience, behavior and keeping commitments. It generally develops in five stages: assess, build, confirm, maintain and strengthen.



From: "Building Trust in Alliances," Pricewaterhouse Coopers LLP, October 2000.

Characteristics of Strong Business Relationships

- Confidence in business partners
- Cooperation among business partners
- Previous experience with business partners on which to base trust
- Sufficient personal experience with business partners in order to assess trustworthiness
- Viewing business partners as an integral part of the team
- Being able to rely on business partners to deliver products and services on time
- Sharing of valuable market information with business partners

- Sharing of best practices among business partners
- Commitments by business partners meet–attend meetings, return calls, and complete tasks.

Interdependence
Interdependence is achieved by identifying what each partner needs from the chain to remain committed.

Commitment
Each partner must make commitments of time, effort and money.

Annex 10: Financial Services and Linkages (Value Chain)

In this step, financial services rendered by Mercy Corps partners and linkages built are dealt here. The services are focusing to value chain finance. Value chain finance refers to financial products and services that flow to or through any point in a value chain in order to increase returns on investment, growth, or competitiveness.

Although value chain finance is conceptually simple, it is more complicated in practice: financial linkages between different players within a given value chain are often difficult due to factors such as longstanding familial and trading relationships; informal, culturally embedded factors; the presence of feudal landlords and their dominance in the value chain; a lack of formalized trade relations between different levels of the value chain; and, finally, knowledge and information asymmetries between different actors in the value chain.

Broad Categories of Value Chain Finance

In general, the majority of agricultural finance in developing countries and underdeveloped economies is provided from within the value chain, with no direct involvement from financial institutions. The future challenge lies in creating more and stronger bridges between value chain actors and financial institutions (that is, indirect value chain finance), while recognizing and formalizing lending arrangements between value chain actors (that is, direct value chain finance).

Direct value chain finance: In cases where banks are inactive, actors within a value chain cater to financial shortages by entering into non-cash transactions and negotiations to better manage and coordinate the effective functioning of the value chain.

Indirect value chain finance: In more developed economies, financial institutions play a key role in financing actors in the value chain. Several financial institutions strategically position themselves to cater to viable and potential value chains. Linking a financial institution to the value chain can be an effective way of taking “direct financing” a step further and improving the likelihood of establishing viable, long-term financing relationships.

The Rationale for Value Chain Finance in the Nepali agricultural context:

Agriculture in developing countries, all over the world, is experiencing profound, fast-moving changes. South Asia, where on average 60% of the population is dependent on agriculture, is no exception. Globalization, although advancing more rapidly in some countries than in others, has hastened the transition from traditional, low-productivity agriculture toward a modern, high-productivity agricultural sector. The resulting processes of structural change entail profound consequences for employment, income generation, risk management, poverty alleviation, and the well-being of rural households in these countries.

Given the continual process improvements required to meet global standards and market demand, many value chain actors are left in a “cash-crunch” during production or trade cycles; this is where appropriate financial service mechanisms are most helpful. Faced with this situation, many actors in a value chain resort to informal financial institutions (money lenders, feudal landlords) and trade brackets for financing. This situation is also common in Nepal, where limited financing options and outreach of formal financial institutions and mechanisms continue to affect rural input suppliers, producers, and traders.

The subsistence nature of production, and the corresponding low level of savings, has resulted in inadequate funding for farming operations in Nepal. In addition, high interest rates and transactions costs prevent most smallholder farmers from accessing formal financial services. Although

cooperatives and savings and credit groups run by rural communities, organized farmers groups, and some NGOs are providing credit to farmers and rural entrepreneurs, these institutions generally lack sufficient capital to cater even to the needs of their members, and therefore have very limited potential to expand their scope or services in a financially sustainable manner. On the other hand, many MFIs provide loans to clients who rely primarily on agriculture as a livelihood strategy: however, since these loans are rarely tailored to the agricultural sector and are not accompanied by embedded technical services, and since the MFIs are rarely interested in the type or potential of the crop being grown by the client, they have limited potential to bolster commercial agricultural value chains, although they will remain an important resource for low-income rural families.

In Nepal, out of a total population of 26 million people, 13 million people lack access to even the most basic formal financial services, a figure thought to be steadily declining.

Value Chain Finance as Practiced in Nepal

The concept of value chain finance as explained in not new to Nepal. Although the concept of value chains has grown more popular among development actors in the past decade, the farmers, collectors, traders, and input suppliers of rural Nepal have been entering into informal contracts for many years, ranging from sales commitments to long-term financial commitments. Most value chain finance evident in Nepal is more direct in nature, including financial relationship between farmers, local money lenders and merchants. Various value chain finance approaches as currently practiced in Nepal are discussed in this section.

Informal Mechanisms: Money Lenders, Local Merchants, and the Dadani System:

Local merchants and other traditional moneylenders are the most availed source of agricultural lending in rural Nepal. These sources are informally organized and are known to transact with farmers on unfavorable terms owing to the absence of other formal financial service providers in the area. Interest rates for these informal loan products can range as high as 120% per annum, although lower interest rates (30% - 60% per annum) are also found.

The presence, even today, of the ‘dadani system’ reflects informal non-financial and financial agreements prevalent between agricultural producers and traders in many areas of Nepal. Under the dadani system, farmers access loans from the traders or merchants to whom they normally sell their produce in return for a certain amount of their harvest at a pre-determined rate, irrespective of market prices at the time of harvest. These loans are generally taken more for consumption and social purposes than for productive purposes, since the funds are rarely invested into agricultural improvements but are rather used to purchase goods, or celebrate festivals, during the lean season. In some cases traders supply agriculture inputs in credit during cultivation season and collect the credit during harvesting season in cash or kind.

The dadani system, although useful for consumption loans for small farmers during lean seasons, is not considered a sustainable way to address the cash-crunch faced by farmers in production and trade cycles. This is because of the dadani system minimizes the farmer’s post-harvest income by preventing the farmer from selling produce at prevailing market prices. As a result, the cycle of debt continues, and loan capital is not used to improve value chain return on investment, growth or competitiveness. Nonetheless, the dadani system is still widely practiced in rural Nepal where formal financial service providers are absent, and in many cases farmers depend on the dadani system to sustain household livelihood strategies through production and trade cycles.

Value Chain finance through Agriculture Development Bank

With the main objective of providing institutional credit for enhancing the production and productivity of the agricultural sector in the country, the Agricultural Development Bank, Nepal was established in 1968 under the ADBN Act 1967, as the successor to the Cooperative Bank. Agricultural Development Bank Limited (ADBL) is an autonomous organization largely owned by Government of Nepal. The bank has been working as a premier rural credit institution since the last three decades, contributing a more than 67 percent of institutional credit supply in the country. Hence, rural finance is the principal operational area of ADBL. It has also been executing the Small Farmer Development Program (SFDP), a major poverty alleviation program launched in the country. Furthermore, the bank has been involved in commercial banking operations since 1984. The structure and its network enabled ADBL to cater to value chain actors at different levels.

However as evidenced by different studies as well as an 'access to finance' study conducted by the World Bank in 2006, the Agricultural Development Bank's financial performance revealed serious concerns about its financial health and outreach. Nonperforming loans were alarmingly high, reaching 40 percent in the Small Farmers Development Program. Accordingly, it was recommended that the program be turned over to independent cooperatives as soon as possible. In addition, the ADBL has not capitalized upon strategic investment areas in agriculture, which is a major bottleneck in structuring agricultural loans and embedding mitigation strategies to reduce non-performing loans and defaults. Finally, the bank's outreach network was necessarily reduced during the conflict period, and has not yet returned to pre-conflict levels. Despite the uneven financial performance of this bank, their extensive branch networks—which account for 61 percent of Nepal's bank branches—offer enormous potential for expanding access to financial services and to cater to the needs of specific value chains.

Value Chain financing through savings and credit cooperatives

Savings and credit cooperatives (SCCs) provide a variety of microfinance services to households in three of Nepal's distinct regions—the Hills, Terai, and Kathmandu Valley. Nearly all Nepali SCCs are self-funded using member savings and equity. Most Nepali SCCs are also profitable, including those located in poor, remote areas of the Hills region. Key reasons for the SCCs' strong financial performance include reliance on member savings and control of administration costs.

The majorities of the SCCs in Nepal are also multipurpose cooperatives, and specifically focus on agriculture commodities. Most of their members are smallholder farmers, who use loans from the SCCs to invest in high quality seeds, fertilizers and marketing. High-profit SCCs also show superior interest earnings on loans as compared to low-profit SCCs. Nepali SCCs generally do not need concessionary funds, because they are already profitable and able to mobilize member savings. While savings-led microfinance in Nepali SCCs is a slow process, there is significant long-term outreach potential in local communities

Value Chain Finance through Private Commercial Banks

Increasing numbers of commercial banks in Nepal are strategizing to expand into rural areas and "down-scale" their operations to meet the needs of the poor. The banks see these segments of the population as a growing customer base; are seeking to serve the poor as per Nepal Rastra Bank deprived sector lending policies; and, see opportunities to address current gaps in rural finance through new technology platforms. However, while the capital and technologies available to these banks are assets, the knowledge and practices of these banks to work with remote and rural clientele is inadequate. For this reason, many banks are working with development projects to gain an understanding of the context before opening branches or expanding operations. In most cases, these development projects give non-financial guarantees by way of assurances, technical assistance, and guarantees to the clients in order to provide banks with a psychological impetus to expand into non-familiar environments.

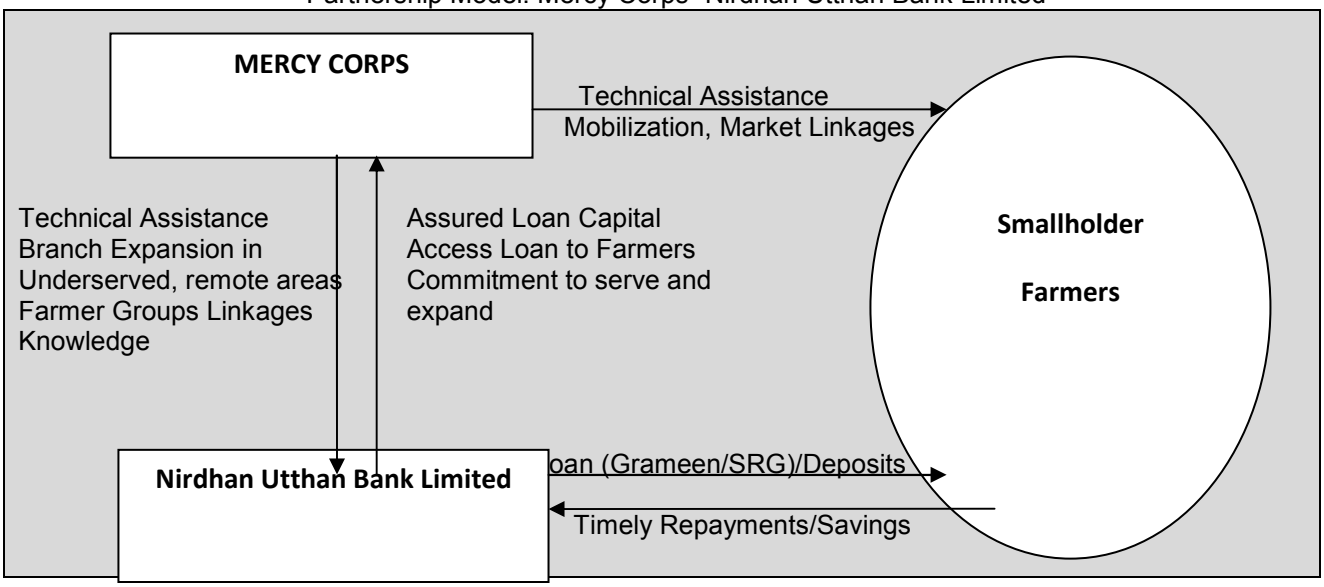
Facilitating Expanded MFI Outreach as a Key Input in Agricultural Value Chains: A Case Study of Mercy Corps' partnership with Nirdhan Utthan Bank, Ltd.

Mercy Corps' work in Nepal with Nirdhan Utthan Bank, Ltd. (NUBL) provides another example of the facilitation of indirect value chain finance by formal financial service providers, this time in partnership with a MFI in Eastern and Far Western Nepal. After working with spice crop farmers in Eastern Nepal for a year, Mercy Corps realized that a lack of access to formal financial services was a key constraint for commercial agriculture. In particular, lack of formal financial services and reliance on the dadani system were barriers to collective marketing, and also restricted productive investments at the household and farmers group level.

As a result, Mercy Corps entered into an agreement with NUBL that temporarily subsidized the MFI's geographic expansion along several value chains supported by the Mercy Corps (that is, covered operational losses for a three year period) in return for a guarantee of financial service provision to a certain percentage of farmers supported by Mercy Corps ($3.7 million in loans in the expansion districts, of which at least 10% went to farmers supported under Mercy Corps projects). Outside of this agreement, NUBL was free to select and mobilize its own clients so as to maintain a profitable operating platform. The decision to facilitate the entry of a new firm was made after an analysis of existing financial service providers in the target districts, which concluded that existing MFIs and SCCs in the project area provided insufficient outreach to and support for client groups, and that there was a general lack of professional-quality financial services in the project areas.

This partnership agreement created a situation in which technical support to farmers, and efforts to improve overall value chain governance by Mercy Corps, were complemented by financial services from NUBL. While both organizations worked independently, NUBL's work reduced farmer loan costs while strengthening farmers' group mobilization, while Mercy Corps' work made farmers more creditworthy through improved technical practices. As a result, NUBL was able to lend to over 480 farmers in 26 groups in the first year of the partnership, and this number continues to increase with time.

Partnership Model: Mercy Corps- Nirdhan Utthan Bank Limited



Challenges in Value Chain Finance

Value chain finance holds many positive attributes. These include ease of access, flexibility, and risk mitigation, all of which can lead to the increased competitiveness of a sector. However, there are imminent challenges to institutionalize value chain finance in developing economies, such as Nepal, where formal financial institutions are still struggling to develop business models to reach smallholder farmers in remote locations and link these farmers to value chain counterparts in the plains. In addition, value chain actors are faced with limited financial resources to cater to the cash flow needs of other actors.

One major challenge, however, for value chain finance actors in both developed and developing economies is the provision of **longer-term loans** for capital investment. Most value chain actors supply short-term working capital to clients that require limited monitoring, collateral or paperwork. As with formal financial institutions, value chain actors often struggle with weighing the risks and rewards of offering investment loans. Value chain finance actors are also faced with challenges of working in a **sector they know little** about. Since their main driving factor is securing a product and reducing risk, the specifics of the financial transaction can be mismanaged – with risks of non-repayment, lack of equity, and misuse of funds.

Conclusion

The findings from various literature confirm that value chain finance is the provision of finance throughout the series (or chain) of transactions that result in the product arriving at market.

Global good practices illustrate that the value chain framework hinges on market orientation, without which the resulting financial services would fail. At its most basic, the value chain finance methodology requires that financial institutions take into account the financial potential of the entire value chain and not just the creditworthiness of a single actor that dominates the dealings within the value chain. With this shift in focus, the financial institution can more accurately measure and mitigate the risk. Once a financial institution establishes the market-oriented logic for an investment, it leverages pre-existing relationships and information between value chain actors to assess risk and more effectively evaluate an individual farmer's ability to service a loan.

In conclusion, there is no single solution regarding the best value chain finance approach. In some contexts, a more direct value chain financing approach could be used, while in other cases a more indirect value chain financing approach with linkages to financial institutions is practical. In some cases a mixture of both the direct and indirect approach is more feasible.

Finally, the effort should be to design approaches that enable formal financial institutions to mitigate the risks associated with value chain finance by: thoroughly evaluating the viability of financing opportunities; bringing together all value chain actors to forge market linkages; designing custom products based on the producers' needs for finance; and ensuring that the process is mutually beneficial for all value chain actors.

In Nepal, value chain finance generally consists of informal direct approaches, or of the introduction of indirect approaches via MFIs, SCCs, and commercial banks. While the introduction of formal financial intermediaries is a promising development, agricultural economies in Nepal could still benefit both from expanded indirect value chain financing by financial service providers, and from formalized direct value chain financing as practiced successfully in other country contexts.

Annex 11: Institutional Development Services

This last step of FAAB is focused to facilitate in institutional development services of participating groups into higher level of institutions so that the group graduate into robust functional institution at the local level.

Concept of Institution

What is Institutions?
An institution is a structures and mechanisms of social, political and economic order and cooperation – formal and informal – in a society/economy, which shape the incentives and behavior of market players. Institutions therefore refer both to the supporting functions and rules – sometimes referred to collectively as 'rules of the game'– in a market system.

Institutional Development Processes of participating Groups

Process	Group Structure	Task Activity
Forming	Considerable anxiety, testing to discover the nature of situation, what help can be expected from leader or convener and what behavior will or will not be appropriate.	What is the task? Members seek the answer to that basic question, together with knowledge of the rules and the methods to be employed.
Storming	Conflict emerges between sub-groups; the authority and /or competence of the leader are challenged. Opinions polarize. Individual react against efforts of the leader or group to control them.	The value and feasibility of the task is questioned. People react emotionally against its demands.
Norming	The group begins to harmonize; it experiences cohesion or unity for the first time. Norms emerge as those in conflict are reconciled and resistance is overcome. Mutual support develops.	Co-operation on the task begins; plans are made and work standards lay down. Communication of views and feelings develop.
Performing	The group structures itself or accepts a structure which fits most appropriately its common tasks. Roles are seen in terms of functional to the task and flexibility between them develops.	Constructive work on the task surges ahead; progress is experienced as more of the group's energy is applied to being effective in the area of their common task.

When the groups are performing well (as per above group stages), they start demanding certain level of services. While providing services, the group must be assessed properly so that the graduated groups are following the 'rule of the game', means they are virtually heading towards institutionalization. Certain specific services may be asked by the groups which may be useful for effective management of the groups as institution. Those potential services are:

a) Awareness and search for new things
b) Higher level of entrepreneurship skills
c) Good symptoms of solidarity and trust
d) Group work and cohesiveness
e) Accounting and MIS services
f) Collaboration and wide ranges of works
g) Issues of policy changes identified
h) Demanding for changes and reform of policy
i) Process of alliance building started
j) Process of federation started
k) Certain functional level of resources generated
l) Certain working rules developed.

Based on above symptoms, MCN can start assisting *smallholder* group in institutional development processes like cooperative registration, federating, alliance building and seed bank establishement.