

Goat Value Chain Toolkit

A guideline for conducting value chain analysis of the goat sub-sector

Prepared by Heifer Project International

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Introduction

Background

International Fund for Agriculture Development (IFAD) has commissioned the International Goat Associate to collect best practices related to pro-poor small ruminant development, including a knowledge harvest document covering wide range of best practices. As part of that initiative, IGA undertook the development of this toolkit for conducting value chain analysis on goat production around the world.

IGA and IFAD requested the service of Heifer International to facilitate the development of this toolkit. To that end, a three-day writeshop was carried out with participation from Heifer Nepal, Heifer Headquarters, Heifer India, in country experts and IGA to gather materials and take advantage of expert guidance. Based on that writeshop, a toolkit was further developed and refined.

Heifer International and their office in Nepal were chosen for development of this toolkit for the following reasons.

- Heifer International has a proven history of strong impact in bringing families from vulnerable to resilient and sustainable communities through development of value chains. There is a very successful example of dairy value chain project funded by Gates Foundation in East Africa and a new goat value chain project in Nepal funded by Heifer International.
- Heifer International Nepal is currently implementing a goat value chain project which covers more than 138,000 families for next five years. This project is funded through multiple donors.
- Heifer Nepal and IFAD are collaborating on an additional large scale project which will use value chain methodology.
- Recently, Heifer International Nepal has conducted extensive goat value chain study as a part of the project. This goat value chain study served as useful in the toolkit to provide appropriate examples.
- As a part of writeshop, field staff of Heifer International Nepal who are engaged in the implementation of the large scale value chain project were utilized to bring grassroots expertise to the process.
- Conducting the writeshop in Nepal was relatively cheaper as compared to the other places.

Purpose of this Toolkit

This toolkit is a compilation of best practices and suggested tools/methodologies for value chain analysis in the goat sector. It can be used by development organizations, project founders and other actors throughout the world to guide in preparation and implementation of their projects through the analysis

goat value chains, whether meat, milk or fiber. Through such value chain analysis, activities can be planned for strengthening mutually beneficial connections between actors in the value chain and bringing increased benefit to marginalized, disadvantaged members of society.

A value chain is a network of firms that buy and sell to each other in order to supply a particular set of products or services to a particular group of final consumers. Value Chain Analysis is used by development agencies to identify how poor people, small enterprises or other target groups can play a larger and more lucrative role in a particular value chain and how a value chain's structure or characteristics can be changed to enable it to grow in pro-poor ways. Value-chain analysis is increasingly used to help develop a competitiveness strategy for a value chain or industry.

How this toolkit was produced

The skeleton of this toolkit was produced through a participatory “writeshop” held 3 to 7 February 2013 in Chitwan, Nepal. The writeshop involved about 12 participants from different organization including goat value chain expert, value chain expert, project staff implementing goat value chain projects, trainers and a facilitator. The information was further consolidated and refined into this toolkit format after the workshop.

Overview of the Goat Value Chain

The term value chain refers to the full range of activities required to bring a product, here in this case goats and their products from the different phases of production to delivery to final consumers. A goat value chain exists when all of the actors in the chain operate in a way that maximizes the generation of value along the chain.

Goats were the first domesticated among the farm animals and cosmopolitan in distribution. They are adaptable to any types of environment and are often neglected by the farmers. In rural areas of the developing countries, goats make a very valuable contribution to the poor. Goats are more important source of livelihood for many more people as they are easy to raise as compared to large animals and can survive in adverse condition with less investment. Goats are popular with small holders because of their efficient conversion of feed into edible and high-quality meat, milk and hide. Goats are also used as holistic tools for land vegetation management and fire fuel load control.

There are approximately 800 million goats in the world. The largest number of goats in the world is in China, followed by India, Pakistan and Bangladesh, all of them are in Asia. Number of goats in these four countries constitutes about 45% of the world total.

Raising goats can have many benefits. They are often more manageable, affordable and hardy for the smallholder farmer. Goats forage on plant varieties that are not preferred by other grazing animals and can improve the quality of pasture land. They can serve as pack animals navigating landscapes where other species could not travel. Goats also produce a diverse array of products from milk (cheeses, yogurt, cosmetics) to fiber (cashmere, mohair) to meat.

A goat value chain looks at the complex range of activities implemented by various actors through a chain to the sale of final products (milk, meat, cheese, fibers, etc.). It does not only look at the activities implemented by a single enterprise, but includes all its backward and forward linkages, until the goats and its products will be linked to the final consumers.

In developing countries, it is often very difficult for smallholder goat farmers to engage in either new or existing value chains in a manner that will benefit them. Even if demand is high, such vulnerable farmers first need to have their capacity built in production, business skills and entrepreneurship in order to develop their activities to an enterprise level allowing them to engage in the value chain.

However, when properly empowered and trained, smallholders can greatly benefit from goat value chain development. Goats already supply a continuous flow of income, which is often difficult to obtain through raising seasonal vegetables. When fully engaged in the value chain, the farmer's livelihood can be built even further to the level of enterprise and sustainability.

Goat Value Chain Framework

The goat value chain can be graphically represented by a framework which identifies the main actors as well as the operations and the relations among them. The main purpose of preparing this framework is to summarize the value chain structure in a clear pictorial format. There are many different ways to prepare value chain framework- horizontal, vertical and circular. The drawings in this chapter present a very simple value chain with few critical elements as well as very complex value chain structures. During the process of value chain study, the framework described in this toolkit can be revised to reflect the reality on the ground.

A General Goat Value Chain Framework:

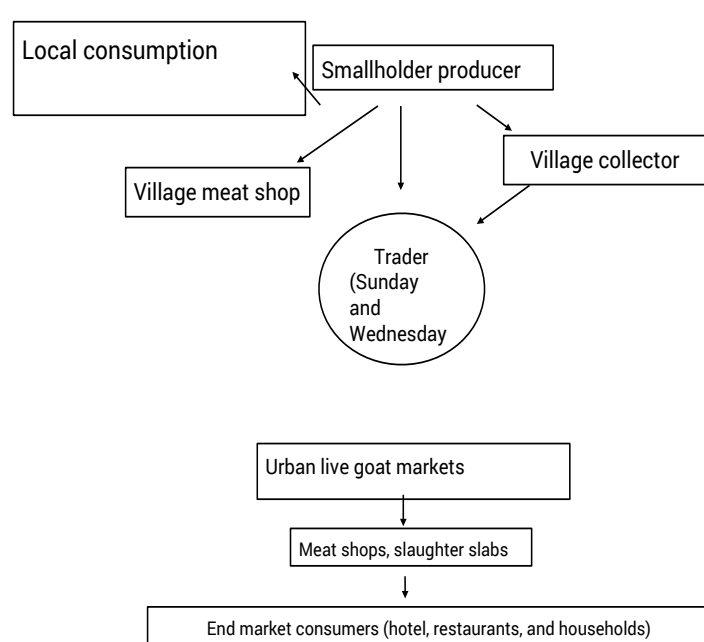


Figure 1: General Goat VC Framework

In this case smallholder goat producers raise goats for meeting their own needs rather than focusing the specific market. Generally the production system is integrated with crop and minimal inputs are considered.

It is generally relevant when examining the value chain for the purpose of development, to prepare a more extensive goat value chain analysis as situations are often fairly intricate. For all types of goat (dairy, meat and fiber), the value chain can be as complex as outlined in the next page. Such value chains are not localized in a specific community but extend to the provincial/state, country or regional level. Three possible complex value chains for dairy, meat and fiber sector outlined during the goat value chain workshop are mentioned in the following pages. However, when value chain studies are done at country or regional level, they may differ depending upon the actors and their level of involvement in the value chain.

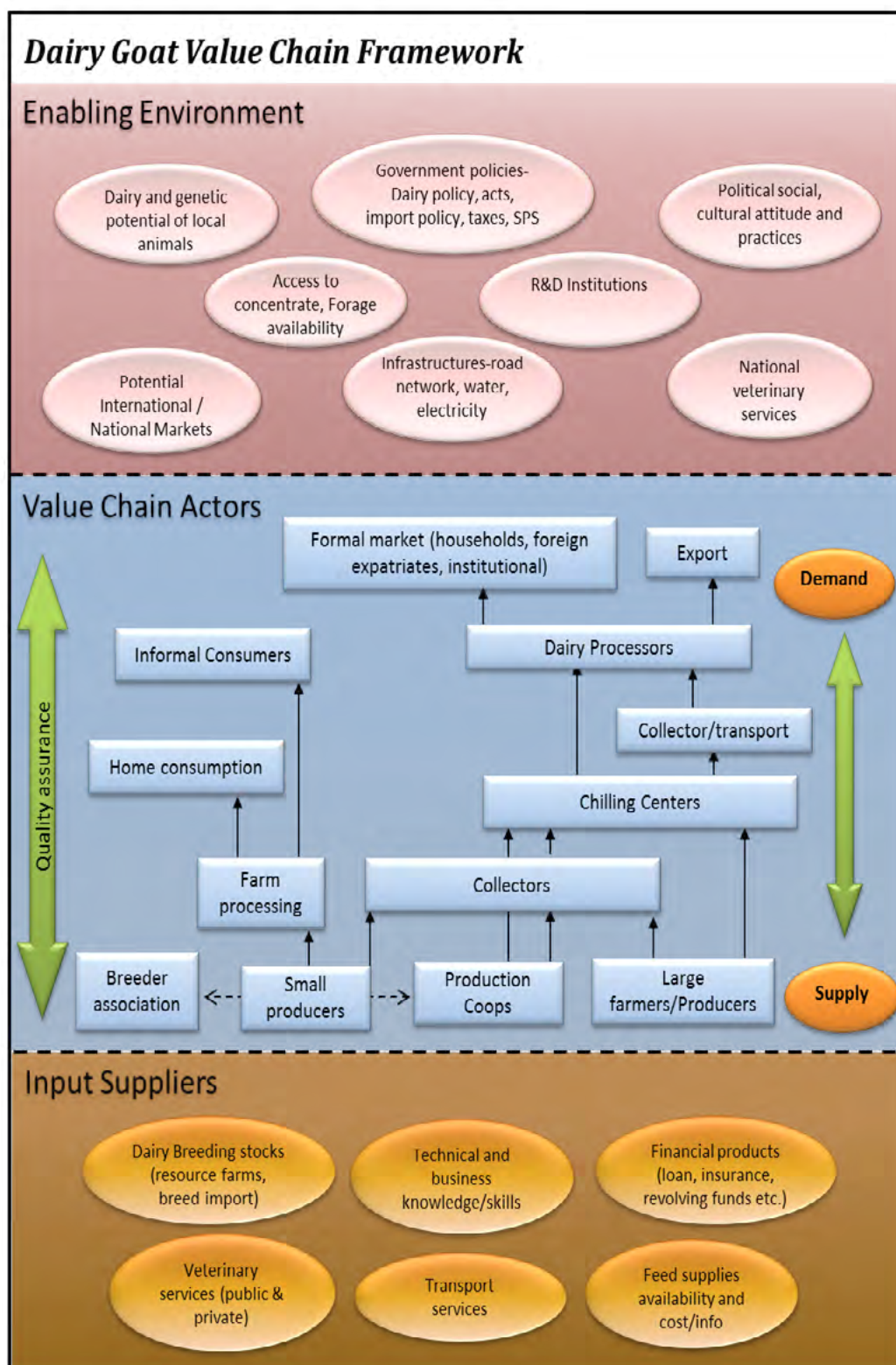


Figure 2: Dairy Value Chain Framework

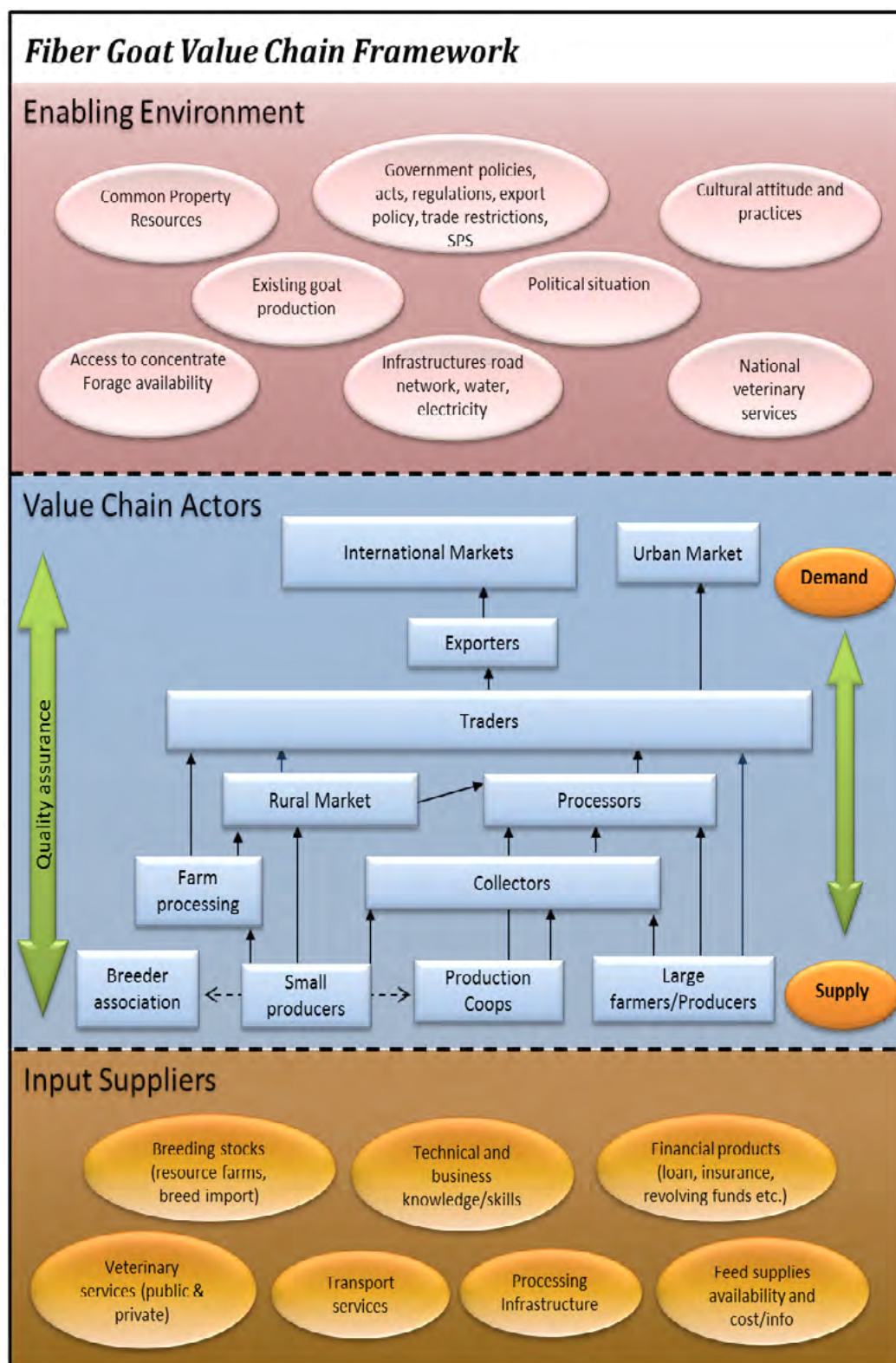


Figure 3: Fiber VC Framework

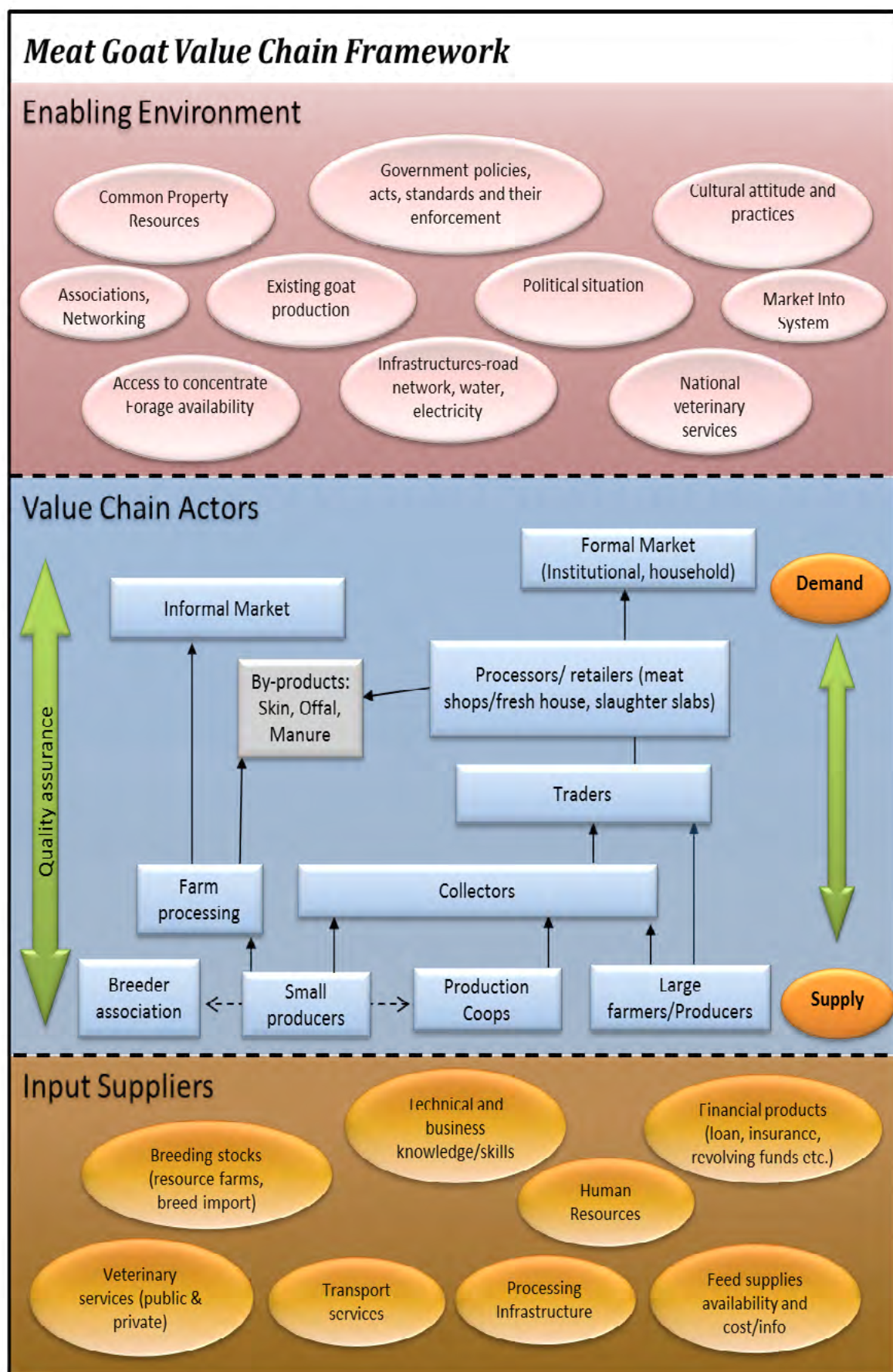


Figure 4: Meat VC Framework

Conducting a Goat Value Chain Study

In development, one of the most critical pre-project design steps can be the implementation of a value chain study. Whether the target is the vulnerable, smallholder producer or small-medium enterprises, it is essential to realize that the target beneficiary is only one piece of a closely integrated mechanism. Development work cannot be sustainable without understanding the full system of actors and relationships in the value chain.

Through conducting a value chain study, the actors and relationships described in abovementioned frameworks are thoroughly examined. A study will identify and examine the actors at each level of the value chain and what role they play, what stake they hold and what influence they wield. An economic analysis of the cash flow, investment and value addition is done at each level and with each actor. Likewise, the attitudes, preferences and relationships that guide the norms, trends and decision making in the value chain are also important drivers that require in-depth analysis.

An exhaustive value chain study will also include a wide-reaching review of the enabling environment. This will take stock of the existing resources available, including financial, capacity building, and input resources. The cultural norms and attitudes that guide the value chain are considered and government policies and practices are reviewed.

The design of the study can also be customized to consider specific issues based on the context of the area or needs of the researcher. For instance, in some South Asian and Middle Eastern countries, gender discrimination is a major issue and women's empowerment is often a goal of development projects. Therefore, a value chain study can be designed to target information about women's participation and benefit from the goat value chain. Likewise, involvement and share of particular marginalized groups can be a focus of the study.

To carry out a value chain study the first step is to identify the actors and relationships between those actors. A literary review of secondary sources is a logical first step; however, in the case of the goat sector, there is often a scarcity of information. For that reason, information from informal sources (through interview) is extremely important.

The following chapters outline of the types of actors and illustrative examples of the kind of information that should be considered for each one as well as suggested tools. Following that, a more extensive methodological discussion of the most potential research tools can be found.

Value Chain Actors

Input Suppliers

Suggested Tools:

Focus group discussions and stakeholders' meetings with input suppliers can provide deeper understanding of the major players. Direct observation is useful for ascertaining the common practices around inputs. A KAP survey is best used for analyzing the relationships among the players.

Input suppliers are often seen as the first link in the value chain and provide either materials or services to producers. Material inputs which will be needed by producers include breeders. Producers will need a source to purchase animals when starting to raise their own goats, and many may continue to need the services of breeding bucks kept by others in their community or AI services where available and appropriate. Though many producers grow or formulate much of their feed themselves, fodder seeds, some formulated feed and supplements may need to be purchased from suppliers. Vaccines and medicines are other supplies are often supplied by actors with specialized knowledge.

Some input suppliers provide services rather than physical materials. Financial services such as credit are especially important to smallholders who lack capital to invest in business enterprises. Such credit services may come from private banks, individuals or microcredit development organizations. Insurance schemes for animals are often unavailable to smallholders in developing countries. Capacity building services (both technical and business skills) may be available in some situations for goat producers and may come from government schemes, NGOs or private institutions. However, many producers may not have access to such services.

Veterinary services are especially important to goat producers. Private veterinarians may be available in some areas, though often prices are prohibitive to very poor farmers. Some governments provide networks of veterinarians or animal health workers whose services are provided at a subsidized rate. However, often there are gaps in services leaving many producers without reliable access to veterinary support.

When analyzing the input supply link of the value chain, it is important to consider quality and quantity, availability and access. The technical knowledge and business skills of each input supplier should be examined, as well as the vertical and horizontal relationships among the various actors.

Input supply is a potential area for intervention in the value chain for the benefit of the smallholder. Producers' cooperatives or associations can bring many inputs to their members for a cheaper price than when obtained individually. Such organizations can also use their influence to access additional services such as wholesale loans or technical trainings for their members.



St. Elmo's Dairy Goat Farm in Philippines, which has its own outlet to sell milk and other dairy products



In Banke, Nepal, Community Agro-vet Entrepreneurs provide animal health services as well as supplies and imbedded services to build capacity on veterinary and agricultural knowledge for small-holder farmers.

Producers

Suggested tools:

Potential tools for assessing producers and their activities include individual farm household sample survey, focus group discussion, observations, review of secondary data on production, household production records, etc.

Producers are the most critical part of the entire goat value chain, but they are often the ones who face more challenges than any others in the chain. When we talk about smallholder goat producers in the value chain, they tend to have many constraints as compared to commercial goat raisers. Some of challenges of smallholders' are limited capacity and resources, inadequate access to inputs and services including technologies, lacking or weak network among the actors of value chain, limited knowledge and lack of empowerment. These constraints are common across the globe for goat raisers whether they raise goats for milk or meat or fiber.

These smallholders often buy inputs in small quantities which are not competitive and investing more than their larger competitors in production. Predominantly there is a lack of business skills among smallholders and they feel uncomfortable interacting with the formal market and with the larger goat farmers. Such farming is at subsistence level only and there is less priority on increasing their income from goats

Important information derived from the value chain study from the production point of view relates to both technical and non-technical aspects of production. The information includes costs of production (fixed and variable costs), socio-cultural preference of goats and goat products and problems associated with production (feed, breed, disease, technical service available, market, price structure, etc.). Discussion with producers also gives opportunities to verify some of the information collected from the input suppliers as the producers are the end users of these inputs. Farmers have a wealth of information necessary to draw several conclusions in the value chain report. Depending upon the objectives and expectations of the value chain study, methodologies and parameters can be designed and can be tested before actual collection of data.

Processing

Suggested tools:

Direct observation is an important tool for understanding the facilities and norms of processing in the goat value chain. Key informant surveys and case studies are also good tools for gathering the quantitative information needed.

The dairy, meat and fiber goat value chains have a variety of unique processing actors. Dairy processors could include temporary chilling centers, liquid milk processors or processors of specialty items such as cheeses. Meat processors may be butchers at bazaars or wet meat stands/shops or they could be large scale brick and mortar businesses processing specialty cuts of meat or items such as sausages. Fiber processing consists of five main stages which can be carried out by as many or more actors and generally occur in varied geographical regions depending on available labor and technology, often including export to other countries.

Many times the act of processing is combined with another activity in the value chain such as in the case of farmers who do the hand dehairing of fiber or trader cum butchers who also serve as retailers through sale of warm meat to end consumers. For that reason, when assessing the value chain, actors may not fit neatly into a prescribed value chain map. In doing a study of processors, the researcher should also consider the different scale of processors as activities, norms and financial situation could vary greatly between processors (see Orissa Case Study).

Assessment of the processor should include an observation of the transport and processing facilities as well as knowledge and skills of the various processors. Quantitative indicators on number, volume and percent carcass yield should be gathered as well as a cost/benefit analysis.

When examining the processing stage of the value chain, special attention should be paid to hygiene and safety concerns. Often processing activities, especially in the meat and milk value chains face certain regulations or restrictions. However, in many developing countries, though regulations are in place, a system for enforcement is often sorely lacking. For that reason, there may be a good amount of space for upgrading the processing aspects of the goat value chain so that products are safer, more hygienic and of higher quality and value. This would also be an important intervention for ensuring safety and health of less wealthy consumers.

EXAMPLE

Case Study of Orissa India

In Orissa India, small traders cum butchers lack awareness surrounding hygienic conditions for slaughtering and disposal of waste.

Consumer preference towards fresh slaughtered meat is not promoting clean packaged meat.

The local traders/butchers complain that their profession requires extensive travel from village to village in search of goats, which increases their transaction cost and letting off of opportunity cost.

The existing commercial banking system does not consider local traders as potential customers because of their economic and social status.

As can be seen from the analysis below, the cost/benefit analysis shows that small traders have a much smaller profit margin than their large scale counterparts.



Cost/Benefit of Small Butcher

| | | |
|-------------------------------|--|---------------------|
| Sales per week | 35 goats (meat of 10 kg) X 10 X Rs. 320/kg | Rs. 112000.00 |
| Income from skin | 35 goats X 200/piece | Rs. 7000.00 |
| Income from head | 35 goats X 50/piece | Rs. 1750.00 |
| Purchase cost per week | 35 goats (meat of 10 kg) X Rs. 3100/goat | Rs. 108500.00 |
| Expense per week | | Rs. 1500.00 |
| Profit margin per week | | Rs. 10750.00 |

Cost/Benefit of Large Butcher

| | | |
|---|---|---------------------|
| Income from selling goats to other butchers | 50 goats (@ Rs 3850/- , approx 5% margin on the procurement cost) | Rs. 183750.00 |
| Sales of meat per week | 50 goats (meat of 11 kg) X 11 X Rs. 340/kg | Rs. 187000.00 |
| Income from skin | 50 goats X 200/piece | Rs. 10000.00 |
| Purchase cost per week | 100 goats (meat of 11 kg) X Rs. 3500/goat | Rs. 350000.00 |
| Expense per week | | Rs. 7600.00 |
| Profit margin per week | | Rs. 23150.00 |

Figure 5: Case Study Orissa

Collection and Trading

Suggested tools:

Potential tools for assessing the collection, trading and transportation activities include market assessment, price information from various sources, stakeholder consultation

The Collection and Trading sectors of the goat Value Chain may consist of multiple actors at multiple levels, including individual collectors, transporters, cooperatives, larger scale traders, collection centers, etc. For instance, in the illustrative value chain below, traders and collectors are actors in three separate processes along the value chain. For that reason, it is important when gathering information on collection and trading to consider the differences between these actors and gather information regarding their role and relationship in different nodes of the value chain.

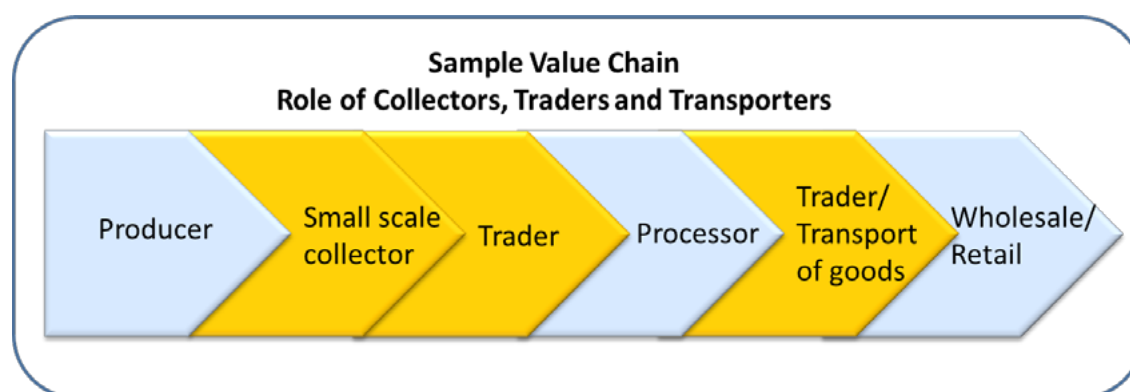


Figure 6: Role of Collectors throughout VC

When analyzing the collection and trading, various factors must be considered and listed such as those listed below:

Number of collection actors working at each node of the value chain and their horizontal linkages.

Volume collected per unit time

Trend of collection over seasons and years

Profit margin (including weight loss during handling)

Price determination method

Collection and distribution location (live animal markets local market, wet markets)

In addition to these physical aspects it is important to consider intangible exchanges between actors, such as sharing of information. According to FAO, "equity can be skewed by governance and poor distribution of information across chains; for example, traders may have and retain better knowledge of consumer demands than producers so that traders can take advantage of premium markets without passing on benefits to producers."

When undertaking a value chain analysis for the purpose of bringing increased benefit to the poorest actors of the chain, the trader and transporter may be closely examined as potential intervention points for upgrading as there may be potential for increased information exchange between farmer and collector or increased entrepreneurial actions among the small-holder producer in order to take up an increased role in collection and trading activities.



In Orissa India, a large trader transports the animals in a truck which neither has proper facilities for animal transportation nor appropriate licensing causing the traders to shell out considerable amount as bribes. In addition, a significant number of goats die while in transportation.

Heifer India Goat Value Chain Study in Orissa, 2013

Retail/Wholesale

Suggested tools:

Though direct observation can give a good high-level picture of the market situation, key informant interviews or sample surveys will help to get a more detailed understanding of each category of actor.

The role of wholesale and retail may be undertaken by various stakeholders from the small farmer selling milk or meat at the farm gate, to the butcher selling meat directly from his abattoir, to the retail shop in urban areas selling mohair products.

To analyze the marketing aspect of the value chain, it is first important to identify which actors take up this function, including their number, practices and locations. Each actor's stake must be analyzed, including their sales volume, costs and profit margins.

In addition, analysis should be undertaken to see if wholesalers/retailers are held to any official quality or certification standards, how those are enforced etc. These actors may also impose certain standards of their own which greatly affect others in the value chain.

The role of retailer and wholesaler is critical in shaping strong, formal value chains as power is often concentrated among the few chain participants who coordinate market activity. These actors hold the majority of the consumer intelligence and product availability information leaving the disadvantaged producer with limited control. Therefore, retail and wholesale institutions may be an important section of the value chain to consider when planning pro-poor interventions, either to strengthen the vertical relationships among the actors to be more mutually beneficial, to assist in developing a more equitable spread of power and information distribution among the actors, or to consider local, more informal value chains in which the smallholder can take a stronger share.

Consumers

Suggested Tools:

Two types of tools can be used in sequence when analyzing the consumer/end-market of the goat value chain. Secondary tools can first be used within the larger context to give an idea of whether not a viable market exists for various products and, if so, where the most attractive markets can be found. In the second phase, primary sources direct observation, case studies, consumer surveys and consultation meetings) can pinpoint particular demands of the targeted customer groups. According to the USAID Value Chain End-Market Toolkit, "Primary End-Market Research should be used as a foundation for the Competitiveness Strategy to upgrade the value chain to build products and services for which clearly defined customer segments will pay premium prices."

The demands of the consumer tend to be a major driving force behind a functioning value chain. For that reason, comprehension of the complete picture of all potential consumers as well as their purchasing capacity and preferences. Potential consumers in the goat meat, milk and fiber value chains could be individuals, institutional entities or export consumers.

EXAMPLE

Consumer Preference in the Nepal Goat Meat Value Chain

The majority of the consumers were from urban areas. Some rural consumers were also interviewed. Rural and urban consumers differed in their attitudes / perceptions. Rural consumers – many of whom were also producers - were less bothered by mixing practices of the meat retailers. However, urban consumers had this concern in mind and therefore want to observe the slaughter and carcass dressing process. Urban consumers' concerns centered on improvement in hygiene and sanitation of meat retailers' shops, preferring slaughter in front because of fears of possible adulteration. The willingness to pay more for improved hygiene and sanitation conditions was not observed as only 11% of the respondents would be willing pay more. About 80 % of consumers were in favour of fresh meat and meat with skin, whereas 20 % favoured skinless, frozen meat. These consumer attitudes / perceptions are mainly arising from on-going traditional habits and from concerns that retailers mix she-goat meat in the bulk. Only 25 % of consumers expressed their willingness to pay more for choice cuts of meat. Nepalese goats were preferred over Indian goats by most of the consumers due to lean meat and flavour of the former.

*Excerpt from A Study on Goat Meat Value Chain Nepal
Shah, Gautam, Paudel*

For all consumers, in addition to analyzing economic aspects such as volume, pricing and consumption patterns, it will be important to understand the socio-cultural factors guiding consumption patterns such as social norms, taboos, values, beliefs, etc. For example, the Department of Agriculture of South Africa reports that goat meat is not preferred in areas where mutton or beef are readily available and many have the perception that goats have an offensive odor, are the poor man's animal and are only used for traditional ceremonies or as pets .

Also important is to understand the consumers' tastes and preferences. For instance, in the meat value chain aspects such as specialty cuts, frozen vs. fresh meat, etc. must be considered (see box 1). In more formal markets, branding and packaging and certification may be another factor influencing consumer decisions. For fiber goats, preferences such as course versus fine hair products should be considered while in the goat milk sector, preferences among specialty products must be analyzed.

Figure 7: Consumer preference on Goat Meat in Nepal

Schools, hotels, military forces and hospitals are examples of institutional buyers which may play a

major role in the consumer pool, especially in the milk and meat value chains. Factors such as their number and type, regulations of their feeding programs, and their institutional preferences may provide necessary information for understanding the dynamics of the value chain.

Some value chains may need to consider export markets in order to assess the full spectrum of consumers in the value chain. For instance, in the case of cashmere, two very distinct and separate markets emerge, with China dominating the low and medium-end market and European customers bringing in the high-end brands.

In cases where export is considered, it is important to understand the quality specifications, certification requirements, trade laws and profit margins for reaching the foreign consumer. Likewise, it is also necessary to consider competing import products, including consumer preference, cost and specifications of such items.

Understanding the consumer is a key issue for designing intervention points to affect the existing value chain. Having the full picture of consumer interests could lead to interventions for producers, traders or others to customize the product to meet the demand. However, while consumption influences the backwards links of the value chain, the opposite can also be true. Influencing the consumer through advertising and awareness-raising can bolster the appeal of the product in two ways: extending reach (informing more people of the product's existence) and increasing value (connecting a product to a certain image or product). Therefore, an additional intervention point may be the consumer itself.

Analysis and Deriving Recommendations

A value chain analysis of the goat value chain information is more specialized and the use of a trained economist during the entire process is very helpful. It gives a more detailed understanding of the actors, activities, services, costs and opportunities related to the flow of particular goat products and the associated services, starting with the input suppliers, farmers and ending with the final buyers or consumers.

A full value chain analysis is very complex and time consuming. Depending upon the objectives of the value chain study, it can be focused on particular section of the value chain, or confining to a specific geographic location. A value chain study result in the report should highlight critical constraints and opportunities along the chain and should be helpful for designing interventions along the value chain especially through the value chain projects. The report also emphasizes the technology options, market options, product requirements/demands and organizational needs and any relevant policies that is affecting along the value chain. The information collected and analyzed through value chain study will play a critical role in preparing a business plan at different levels, from input suppliers, goat producers, collectors and traders.

1 Value chain analysis can answer several important questions in designing development projects. The graphic below depicts some of the key considerations in program design which can be addressed through a thorough value chain analysis.

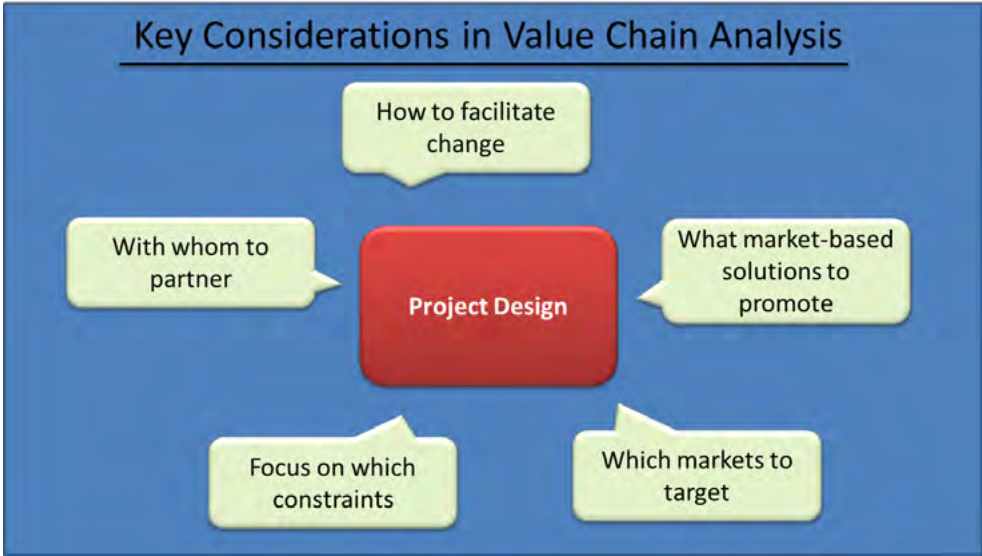


Figure 8: Key Considerations in VC Analysis

2The value chain study should be able to estimate the approximate amount of money that each actor makes and it typically reveals that smallholder should make more in an ideal goat project.



Figure 9: Stakeholder Shares in Goat Meat Value Chain, Nepal

3 It is important to know the production cycle in the existing value chain so that an intervention mechanism can be developed during the project implementation.

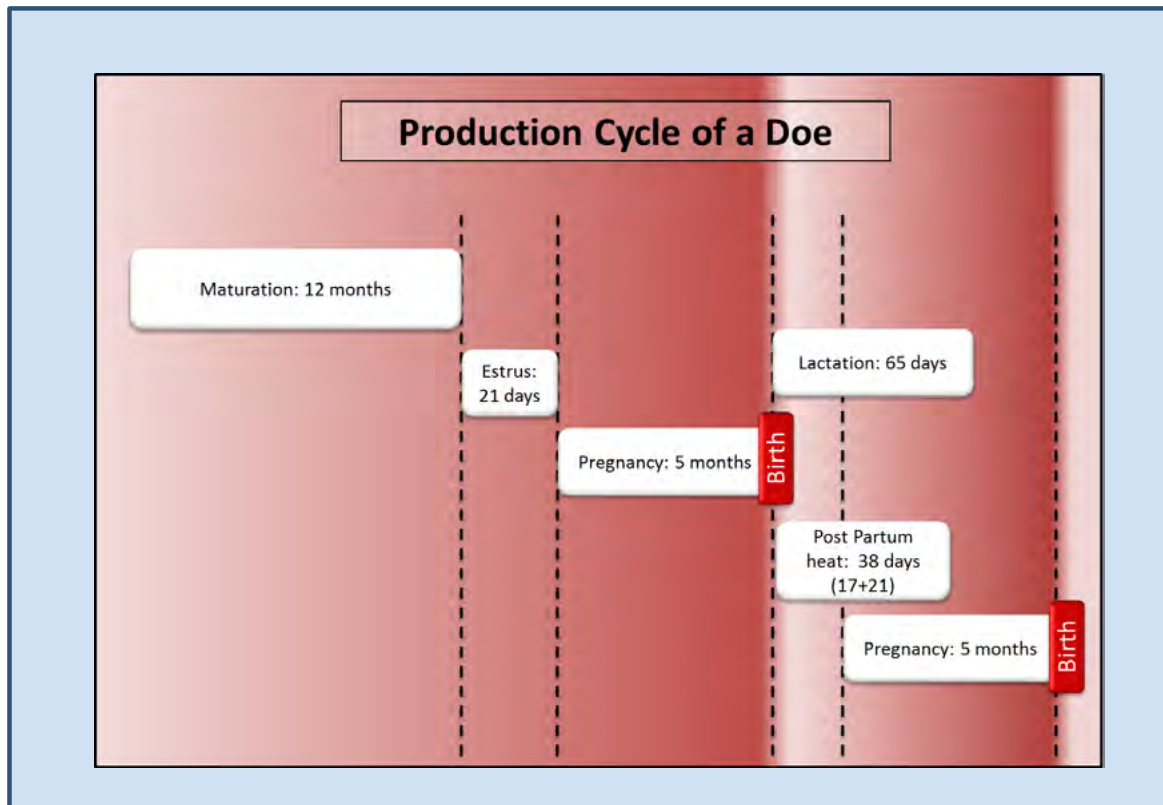


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Figure 10: Sample Production cycle of Goats

1. SWOT analysis: The weakness and opportunities outlined in the value chain study can inform strategies for project interventions if there is scope for developing projects in the goat value chain.
2. Based on the stakeholder analysis, it is also possible to evaluate the relative importance of stakeholders and their roles in the value chain. That can be a basis for mobilizing all stakeholders of the value chain for the benefits of the smallholders.
3. The study also indicates the relationships between different stakeholders and their relative importance along the value chain, which also helps us design effective goat value chain projects.
4. The enabling environment must be examined at various points throughout the value chain. This will take into consideration various actors and forces that may impact the functioning of the value chain and include the following:

Infrastructure

Policies

Cultural preferences and norms

Access to resources (financial, veterinary, animal nutrition, etc)

Market availability

Research and Development

Etc.

5. Mapping the value chain: After outlining the value chain framework, value chain mapping is a very important step. The following mapping may be useful for analyzing information and making conclusions and recommendations in the goat value chain:

Core processes in the goat value chain

Identifying main actors involved in the process, flows of production (meat, milk, fiber)

Knowledge and flow of information

Volume and number of products

Geographical flow of products and services

Relationships and linkages between value chain actors

Constraints and potential solutions

Recommended Data Collection Tools

Here we summarize the prioritized tools and process for qualitative and quantitative information gathering for the goat value chain study to produce outputs as described in previous chapters. The data collection process mentioned in this chapter can be customized depending upon the volume and depth of information needs, time and resources available and also the objectives of the goat value chain studies. The tools described in this chapter are among the most useful approaches to providing required information.

Additional tools are provided for using both primary and secondary information once it has been gathered. These tools (such as SWOT and situation analysis) help to organize and analyze the mass of information collected so that it can be used to help inform decision-making regarding strategies and interventions in development work.

Data collection for situation analysis or preliminary information gathering:

Information should be collected on the key people involved in the goat sector, the market, and consumers; how chains may change over time (in the festival seasons) or variation in different market places.

Key items of the information to be collected are outlined below:

What are the products (milk, meat, fiber, hide, etc.)?

Who are the stakeholders? How are they involved and what are their roles; relationships between these stakeholders and their level of influence

Presence of the institutions focused on goat production and management, and marketing, their strengths, and their relationships. Are there any institutional gaps?

Practices along the goat production, processing, marketing chain.

Consumption trends: quality and quantity

Infrastructure in place.

Details to be included during the data collection are;

Identify all products (milk, meat, fiber, hide, etc.) and characterize them

Identify all stakeholders

Production, demand and supply of the products

Production, processing and distribution system analysis (define and map production system,

Perceptions of different stakeholders of goat value chain in terms of profitability

Pattern of trade and mapping of trade routes

The collection of socio-economic data is also very important in the process of value chain study to know the existing institutional arrangements and their interactions in the value chains. Information includes but not limited to

- Financial and non-financial arrangements between stakeholders in exchange of product and services

- Value, frequency of transaction

- Profit margins and sale volumes at different points in the goat value chain

- Contribution of the value chain related activity to the household income at the goat producer level for other stakeholders

- Certification, inspection, and regulations related to goats and its products and how credible they are in terms of implementation.

- Capacities, resources and infrastructures at all level both individuals and institutions

The data collection for both production and socio-economies represents the base for conducting goat value chain analysis. However, we need to have additional information to see overall goat value chain in bigger picture.

Table 1: Potential Data Sources for Goat Value Chain Studies

| Primary Sources | Secondary Sources |
|--|--|
| <p>Individuals:</p> <ul style="list-style-type: none"> • Input suppliers (types/levels) • Producers (types/levels) • Traders (types/levels) • Processors (types/levels) • Consumers (demand and preferences) • Goat value chain infrastructure providers (market workers, butchers, traders, transporters) | <ul style="list-style-type: none"> • Existing goat sector reviews • Statistics on human, livestock, goat population, market volumes and demands, etc. • Goat production related case studies, reports, projects, strategies <p>Additionally the following sources of information are very useful</p> <ul style="list-style-type: none"> • Country reports • Country Strategy Reports of the donors • Government planning documents • Living Standard Survey Report • Media reports editorials, • Policy review and analysis, • Price information either from farmers and traders or government system • Review of existing acts, rules, standards, directives • Trade statistics |
| <p>Groups and representatives:</p> <ul style="list-style-type: none"> • Input supplier associations • Producers association, SHGs, co-operatives • Traders associations • Marketing associations • Government departments | |

During the goat value chain writeshop conducted in Nepal, the following data (qualitative and quantitative) collection and analysis tools were identified and discussed. These lists with brief explanations are by no means exhaustive; the value chain study team can identify other tools in their specific contexts.

1. Case studies

Case study refers to the collection and presentation of detailed information about a particular participant or small group, frequently including the accounts of the subjects themselves. A form of qualitative descriptive research, the case study looks intensely at an individual or small participant pool, drawing conclusions only about that participant or group and only in that specific context.

This is one of the widely used tools for conducting agricultural value chain analysis including that of livestock value chains. It is virtually impossible to outline any strict or universal method for conducting case studies as there are several variations in goat production practices and other issues associated the goat value chain from production to consumption. Several subsets of methods and approaches are utilized for obtaining a complete picture of the ongoing goat production practices. Some common methods include interviews with randomly or purposefully selected goat producers and other actors of goat value chain, field studies and direct observations of different stages of goat production, processing and marketing.

Case studies can focus on one participant or a small group of goat value chain actors depending upon the objectives. These participants can represent a cross section of the goat value chain. Since, several processes and methods are used in writing case studies, using such secondary information can give the goat value chain study group a variety of information on specific goat value chain components while reducing the time, resources and effort which would be required to collect the information first hand. However, credibility of the information may be questionable depending on who has prepared case studies and in what situation.

Using already available case studies will

- Save time and resources of the project.

- Provide valuable secondary information on goat production, marketing, consumer preferences and trade issues etc. depending upon the subject matter of case study.

Case studies are especially helpful for obtaining a micro-level perspective of the value chain. However, when using case studies, the researcher must be careful to remember that findings of one case study may not necessarily be generalized to all other similar actors in the chain.

EXAMPLE

In an effort to evaluate the performance of community animal health workers (CAHWs), the evaluation team used the case studies conducted by a reputed training service agency and also the situation of goat health status in the working area of the CAHWs in India through the Heifer International. Higher numbers of goats were dying due to internal parasites simply because drenching against internal parasites was not done strategically. Based on these case study results, the training course was updated to address this issue

2. Consultation workshops/ meetings

The consultation workshops are designed to collect specific information needed during value chain study. Participants of the workshop are mainly experts on goat production, processing and livestock economics having extensive experience in the goat market from producers to consumers. During the process of the value chain study, a roster of experts can be prepared and consulted in groups by organizing small focused discussion. In the event that some experts are not available to participate, one-on-one meetings can also be organized. This method is applicable to all actors of the value chain. Such meetings and workshop are organized virtually as well if technology allows.

The consultation workshops/meetings can capture current goat production trends, strengths of goat-raising and problems associated with production. Similarly, such events can be organized separately for each stakeholder of the value chain to gather in-depth information on each segment. A combination of all actors can also be used, which helps the stakeholders learn and share their successes and challenges.

Thus, consultation workshops can be valuable at various points along the value chain or for getting a high level overview. However, it is important to weigh the time, resources, logistical support and other needs required for carrying out such forums and the researcher may need to be strategic in determining in which cases such an activity may prove to be most useful depending on the already available secondary information.



A value chain consultation workshop held in Can Tho City, Vietnam, with various stakeholders including NGOs, local authorities and subject matter experts

3. Direct observation

Observation is a way of gathering data by watching behavior, events, or noting physical characteristics in their natural setting. Observations can be overt (everyone knows they are being observed) or covert (no one knows they are being observed and the observer is concealed). The benefit of covert observation is that people are more likely to behave naturally if they do not know they are being observed. However, the researcher will typically need to conduct overt observations because of ethical problems related to concealing the observation.

Observations can also be either direct or indirect. Direct observation is watching interactions, processes or behaviors as they occur; for example, observing a goat shed, a butcher house, live goat market. Indirect observations are watching the results of interactions, processes, or behaviors due to the different stakeholders' involvement in goat value chain.

Direct observations are performed through the following steps with emphasis on goat production, processing and marketing and its relevant stakeholders.

Determine the focus; e.g. goat production, goat feeding practices, condition of butcher houses and slaughter hygiene, live goat markets, etc.

Develop direct observation forms depending upon the objectives of the study

Select the sites

Decide on the best timing of the observation

Conduct field observation and complete the forms. To gather as much data as possible, a team of experts can participate during direct observation and collect the information.

Analyze the data collected during observation

Check the data and other information for reliability and validity.

Observation is an important tool that should be used at each link of the value chain as it is simple, supplements already available information, is not subject to bias of the actors and can be used to validate other data sources. However, direct observation should not be used in isolation as situations may be complex and require corroboration by multiple sources of data.

EXAMPLE

An example of structured direct observation was an effort to identify constraints in the smallholder goat production systems. The value chain study team prepared a direct observation form covering the housing, feeding, health care and management practices smallholder goat raisers are using in Nepal in different locations

The team identified several innovative practices smallholder goat farmers are using like elevated floors, use of feeding racks, provision of locally made salt licks, etc. Most of the goats assessed during the observation were within the acceptable body condition scores (BCS). Moreover, practices of castration and selection of does and buck for breeding purpose was not uniform which required immediate attention for increasing goat production and productivity

4. Focus Group Discussion

A focus group discussion (FDGs) is a group of ten or more people, led by a facilitator in a group interview format and brought together to discuss a particular topic or issue. Focus groups provide a forum for an organization to discuss issues and explore subjective matters with their stakeholders, such as service expectations, attitudes, feelings and experiences.

Key characteristics:

Held with a group of ten to twelve people

Participants are homogeneous but unknown to each other

Led by a facilitator (usually two) in a group interview format

Of 1 ½ to 2 hours in duration

Used when largely qualitative information is required

The goal is not to reach a consensus, solve a problem or make a decision

Seek to obtain insights into attitudes, perceptions, beliefs and feelings of participants

Questioning route uses predetermined, sequenced, open-ended questions

Frequently a brief questionnaire is used during the focus group interview as a method of structuring feedback and obtaining more precise data such as priorities and preferences.

FGDs can be used to explore the meanings of survey findings that cannot be explained statistically, the range of opinions/views on a topic of interest and to collect a wide variety of research and policy, FGD can be useful in providing an insight into different opinions among different parties involved in the change process, thus enabling the process to be managed more smoothly.

FDGs can be used well with the smallholder goat producers, collector, traders, slaughter house owners, input and service providers and also with the consumers to know the strengths, weaknesses, consumer preferences, goat health issues, availability of inputs and services, etc. This is the most widely used method in any of the livestock value chain studies.



Focus Group Discussion with Goat Meat Value Chain Stakeholders in Nepal

5. Structured interview/ survey

A structured interview, also known as a standardized interview is a quantitative research method commonly employed in survey research. The aim of this approach is to ensure that each interview is presented with exactly the same questions in the same order. This ensures that answers can be reliably aggregated and that comparisons can be made with confidence between sample subgroups or between different survey periods¹.

The interviews are conducted with goat value chain participants at all levels of the chain, and are designed to:

identify the primary actors in the value chain, their roles, and interrelationships

¹ http://en.wikipedia.org/wiki/Structured_interview

identify market channels and trends within the value chain

identify constraints and opportunities that are holding back growth and competitiveness

Different types of surveys can be designed to meet the objectives of the study using the structured interview questionnaires. An example of this is the household survey to compile the data on goat meat consumption habits, production processes, productivity and goat health. Surveys in markets can be done with consumers, butchers, traders etc. to gather data on trading process and patterns, and prices at different levels and volumes of goat. Some of the information in the survey can be collected through direct observation during interview process.

Structured interview/surveys are extremely valuable when there is a need to produce quantitative data which can be organized and analyzed in a scientific way. One constraint of this method is the time and resources required to obtain a significant sample size for drawing extrapolative conclusions. Thus the researcher will need to be strategic based on the availability of information through other sources and the goals of the survey when determining when a structured interview is appropriate

A set of questionnaires used for goat value chain study can be found in appendix 2.

6. Gender analysis tools (Harvard Analytical Framework)

The Harvard Analytical Framework, also called the Gender Roles Framework, is one of the earliest frameworks for understanding differences between men and women in their participation in the economy. Framework-based gender analysis has great importance in helping policy makers understand the economic case for allocating development resources to women as well as men. This framework is a grid for collecting micro-level data and is a useful way of organizing information. This method can be adapted to many situations within the smallholder goat production system. The Harvard Analytical Framework has four main components.

- I. **Activity Profile:** This tool identifies all relevant productive tasks and answers the question, “Who does what in smallholder goat production system?”
- II. **Access and Control Profile:** This tool enables users to list what resources people use to carry out the tasks identified in the Activity Profile. It indicates whether women or men have access to resources (goats), who controls their use, and who controls the benefits of a household’s (or a community’s) use of resources. Access simply means that you are able to use a resource; but this says nothing about whether you have control over it.
- III. **Influencing factors:** This tool allows you to chart factors which influence the differences in the gender division of labor, access, and control as listed in the two Profiles (Tools 1 and 2). Identifying past and present influences can give an indication of future trends. These factors must also be considered because they present opportunities and constraints to increasing the involvement of women in development projects and programs.
- IV. **Project Cycle Analysis:** This consists of a series of questions. They are designed to assist you to examine a project proposal or an area of intervention from a gender perspective, using gender-disaggregated data and capturing the different effects of social change on men and women.

Gender analysis will be especially important in developing countries where gender discrimination is one of the factors contributing to poverty or low HDIs, particularly when development interventions post-survey will be geared towards women.

An example of this tool used in goat production practices in Rajasthan, India is summarized below.

Table 2: Harvard Analytical Framework for Gender role in Goat farming.**Tool: Activity Profile**

| Activities | Women/ girls | Men/ Boys |
|---|---|---------------------|
| <u>Production Activities of goat farming</u> | | |
| Activities: | | |
| 1. Sale and Purchase of goats, | | Yes ✓ |
| 2. Sale and Purchase of fodder/feed, | | Yes ✓ |
| 3. Fodder Cultivation | Yes ✓ | |
| 4. Shed Construction | Yes ✓ | |
| 5. Veterinary Care (medicine and vaccination) | Yes ✓ | Yes ✓ |
| 7. Care and Management of Goats | Yes ✓ | |
| 8. Grazing/Feeding of goats | Yes ✓ | |
| Others: | | |
| <u>Socially Reproductive Activities in Goat Rearing</u> | | |
| Activity 1. Where a Shed should be constructed? | | Yes ✓ |
| Activity 2. Who will construct the shed or take care of the goat? | Yes ✓ | |
| Activity 3. How many goats will be reared, where it will be purchased and what flock size will be kept. | | Yes ✓ |
| Activity 4. Food Preparation: | | |
| Activity 5. Childcare: | Yes ✓ | |
| Activity 6. Health related (Family members) | Yes ✓ | |
| Activity 7. Cleaning and repair of Shed: | Yes ✓ | |
| Activity 8. Market Related: | Yes ✓ | |
| Others : | Yes ✓ | Yes ✓ |
| | noncommercial mar- (ket activities | (commercial) |

Table 3: Harvard Analytical Framework for Gender role in Goat farming. Tool: Access and control profile

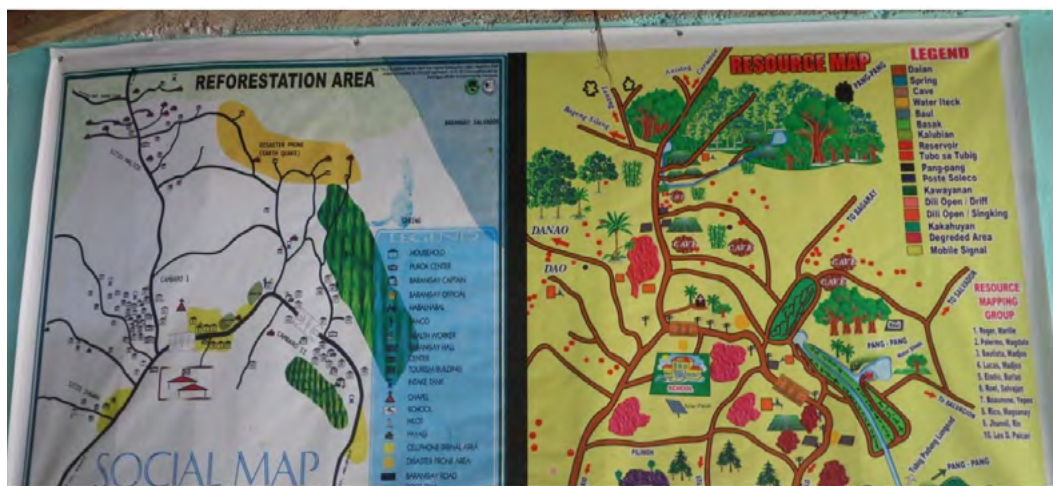
| | Access | | Control | |
|--|--------|-----|---------|-----|
| | Woman | Man | Woman | Man |
| (Resources (goat related | | | | |
| Land | Yes | Yes | | Yes |
| Goats | Yes | Yes | | Yes |
| Labor returns for goat rearing | Yes | Yes | | |
| Cash from selling of goats | | Yes | | Yes |
| Training and Skill development | | | | |
| | Yes | Yes | | Yes |
| Other | | | | |
| Benefits from goat rearing | | | | |
| Outside Income | Yes | Yes | | Yes |
| Asset Ownership | Yes | Yes | | Yes |
| Milk or Meat produced from goat | Yes | Yes | | Yes |
| Education/ Cloth/ basic needs from money generated from goat rearing | Yes | Yes | | Yes |
| Other | | | | |

7. Resource Mapping

Resource mapping exercises as used in a Participatory Rural Appraisal (PRA) activity not only provide the evaluator with information about the physical characteristics of the community, but can also reveal much about the socio-economic conditions and how the participants perceive their community. The maps are usually drawn by a group of villagers either on the ground using chalk or on a large sheet of paper. The exercise often attracts much attention and generates useful debate among the mapmakers and the onlookers. The final map is then recorded by the PRA team to use in subsequent discussions.

Various thematic maps can be developed depending on the focus of the evaluation. In case of the goat value chain study, resources mapping will add value and provide substantial information on the number goats, goat housing situation, and availability of fodder/forage or pasture land, slaughter houses, etc. within a short period of time. It also provides information on particular household-level characteristics—relative wealth, levels of resource use, labor available for goat raising, membership/ involvement in a community group or goat producers' association, and so on.

This technique can be done as part of a group discussion, to generate a consensus view of the community's engagements in goat production, technologies in use for goat raising, market for goats and pricing mechanism etc.



General resource maps prepared by Cambaro Barangay in the Eastern Visayas, the Philippines

8. Key Informant Interview

A key informant interview is a loosely structured conversation with people who have specialized knowledge about the topic you wish to understand. Key informant interviews were developed by ethnographers to help understand cultures other than their own. Key informant interviews let you explore a subject in depth. The reciprocal nature of these interviews can result in the discovery of information that would not have been revealed in a survey.

Key informant interviews have some advantages over other forms of data collection. They are easier and less expensive than focus groups since they involve only one respondent and one interviewer. However, the researcher should realize that it may be difficult to generalize results to the larger populations unless many informants are interviewed (which would result in a greater requirement of time and resources).

Before conducting key informant interview, the interviewer should know the purpose and make necessary preparations based on the specific focus on the interview. It can be targeted to a model farmer who has made tremendous progress through goat raising, or a trader engaged in long-term goat trading or with an animal health technician/veterinarian to know overall health and husbandry practices for improved goat production. It is also important that when developing the questions for such interviews, the researcher designs them in such a way to elicit the most revealing and relevant information from the informant.



A community agro-vet entrepreneur (CAVE) describing the goat health situation in a project area in Pyuthan, Nepal, as a Key Informant

9. Knowledge, attitude and practice (KAP) survey

A KAP survey is a representative study of a specific population to collect information on what is known, believed and done in relation to a particular topic – in this case, goat production. In most KAP surveys, data is collected orally by an interviewer using a structured, standardized questionnaire. These data then can be analyzed quantitatively or qualitatively depending on the objectives and design of the value chain study. A KAP survey can be designed specifically to gather information about goat production and management related topics, but may also include questions about general goat production practices and consumer preferences.

A KAP survey can be conducted at any point during improved goat production activities, but is most helpful if conducted in the early phases of a project, after the overall programmatic objectives have been determined (such as the implementation of new approaches or interventions to address specific challenges like frequent mortality of goats or cases of poor production but high market potential) and before extensive project planning has been completed. In this scenario, data from the KAP survey can be used to orient resource allocation and project design, and to establish a baseline for comparison with end of project objectives that are focused on improved goat production.

10. Market assessment (observation, interview, discussion)

Market Assessment is the evaluation of the market for a product or service including the analysis of the market trends, assessing the competition and conducting market studies. It is very important that before implementing any large size goat programs in any country or region, an assessment is undertaken of the goat and goat products market including demand and supply, consumers taste and preferences, goat export/import situation, major market centers, price trends etc. through different means. A market assessment is a critical activity for all goat value chain studies.

An example below gives an idea about the market infrastructure, other facilities essential in the market place, ownership and management of the market in selected district of Nepal compiled during Goat Value Chain Study in 2012.

EXAMPLE

Table 4: Infrastructure status of the Existing Market Centers in selected Municipalities of Nepal

| Name of the sites | Infrastructure | | | | | | Other facilities | | | | Ownership and management | |
|-------------------|---------------------------------|---------------------|----------------|-----------------------|-----|---------------|------------------|----------|---------------------|-----------------------|--------------------------|------------------------|
| | Market yard for collector (MYC) | Meat Retailers shop | Slaughter Slab | Wt. Facilities in MYC | MIS | Shed for goat | Canteen | Bank | Toilet and Bathroom | Common holding places | Land Ownership | Management |
| Nepalgung | No | Yes | No | No | No | Individual | No | No | No | No | Municipality | Municipality |
| Butwal | No | Yes | No | No | No | No | No | Near-yes | Yes | No | Municipality. | Municipality |
| Pokhara | yes | Yes | No | yes | yes | yes | Yes | Near-yes | yes | yes | Private | Market Mgmt. Committee |
| Dharan | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Municipality | Market Mgmt. Comm. |
| Biratnagar | No | Yes | No | No | No | No | No | Near-yes | No | No | Municipality | Municipality |
| Birtamod | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Municipality | Municipality |

11. Situation analysis

A Situation Analysis is an examination of the broad context or external environment in which the goat production system is operating. It is sometimes called context analysis.

A Situation Analysis includes the following elements:

- An analysis of the state and condition of goat and its ecosystem (including identification of trends and pressures)

- Identification of major issues related to goat production and its ecosystem that require attention

- An analysis of key stakeholders – groups of farmers and institutions who are engaged in different stages of goat value chain.

Situation analysis is recognized as the first step in the goat value chain study and a necessary step to undertake before making a final recommendation on goat project design and strategy.

The basic steps involved in Situation Analysis include but are not limited to

- Define the boundaries of the area to be included in the analysis.

- Research and describe the current state and condition of goat production and ecosystems in the identified area.

- Identify the major significant issues or areas requiring attention.

- Identify key stakeholders, including key institutions working on or involved with the goat production and/or areas requiring attention and change.

- Assess stakeholder interest, potential impact, power and influence.

12. SWOT analysis

SWOT Analysis is a structured planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats (SWOT) involved in the goat sector. A SWOT analysis can be carried out for different goat production systems, input suppliers, marketing, consumer preferences, etc. separately or altogether.

The analysis of strengths, weaknesses, opportunities and threats is a pre-requisite for the formulation of a foolproof strategy for development of each sector including the goat subsector in this case.

Below are the examples internal and external (market, production and socio-economics related) SWOT analysis of Nepal's goat sector; and another example from dairy goat industry in the Philippines.

EXAMPLE

Table 5: SWOT analysis for Nepal's Meat Goat Sector

| Internal strengths | Internal weaknesses |
|---|--|
| Markets related: | |
| <ul style="list-style-type: none"> Domestic demand for goat meat is increasing Huge gap between domestic demand and supply Frozen meat trading is emerging Organized and regular goat market is present in Narayani–east sector Private sector investment is emerging There are opportunities for increasing economic scale of production Goat-specific transport trucks are slowly increasing Sole involvement of private sector in trade Private sector network for input supply exists Large number of cooperatives exists in goat production areas. Export potentials exist for goat meat in Gulf countries. Entrepreneurs' associations are emerging | <ul style="list-style-type: none"> Organized and regular goat market (Hatiya) is absent from Western, Mid-western and Far western regions Selling on a live wt. basis is absent at the producer level and most of the other trading levels (even in end markets) Price information linkages are poor Inadequate facilities at regular market centers Goat trading is based on bargaining Slaughter houses / slabs are either absent or underutilized. Market tax is too high in contracted out markets Limited number of goats for completing a full truckload of goats Collective holding places are absent or underutilized. Role of cooperatives in goat trade is missing |

| Production related: | |
|--|---|
| <ul style="list-style-type: none"> • Forestry sector provides room for increased goat production. • Vast area of CPR (Twice more than Ag. Land) • Favorable environment for forage and fodder production • Technologies for increasing production and productivity are available • Genetic potential exists to increase goat productivity. • Favorable environment to increase doe population • Preventive and strategic control measures are available • Commercial farming is slowly emerging • Low capital investment is required as compared to other livestock production. | <ul style="list-style-type: none"> • Inadequate control of diseases / predators • Lack of resource farms for desired goat breeds • Local breed selection program is inadequate • Goat productivity potential is not optimized • Vet. input supply is inadequate and untimely • Inadequate commercial farms • Lack of awareness about potentiality of locally stabilized breeds • Inadequacy of mass scale forage and fodder dev. programs • Aged male goat rearing and selling practice • Inadequacy of forage seed production • Inadequacy of fodder saplings production • Distant grazing movement causing lower growth |

| Socio-economics related: | |
|--|--|
| <ul style="list-style-type: none"> • Under employment of Ag. labor in rural areas • Availability of unemployed vet. paraprofessionals in rural areas. • Manpower development institutions are present • Preference of consumers' for local breeds • Contribution towards food and nutrition security • Quick disposable assets and wealth of poor farmers • Transportation safety net provision is emerging • Health conscious /quality control issues emerging • Meat inspection act 2055 BS exists. | <ul style="list-style-type: none"> • Goat husbandry is not considered as an enterprise. • Lower hygienic conditions in trade and production • Demanded quantity of local breed is not available • Transportation safety-net provision is not enacted <hr/> <p>Low economic scale of production by small farmers</p> <ul style="list-style-type: none"> • Inadequate goat specific training centers. • Meat inspection act is not enacted |

| External Opportunities | |
|--|--|
| <p>Market</p> <ul style="list-style-type: none"> • Export potential exists • Organic produce demand is high • Organized regular markets are there • Well-developed marketing channels • Oligopolistic market system • Well-developed price information system • Well-functioning goat meat transportation • Higher international price of goat meat <p>Production</p> <ul style="list-style-type: none"> • Continuous advancement in research and technology • Adoption of latest technologies <p>Socio – Economic</p> <ul style="list-style-type: none"> • Awareness about importance of organic meat | <p>Market</p> <ul style="list-style-type: none"> • Trans- boundary animal diseases • Dumping of imported meat in market • Illegal trade • Technical barriers for trade • Sanitary and phytosanitary requirements for trade <p>Production</p> <ul style="list-style-type: none"> • Low cost of Boer goat production • Increasing African commercial farm production • Certificate of origin and regular health inspection <ul style="list-style-type: none"> • Certificate of residue free status <p>Socio - Economic</p> <ul style="list-style-type: none"> • Goat meat is not accepted by certain races |

Table 6: SWOT Analysis for Isabela Dairy Goat Industry in the Philippines

| Strength | Weaknesses |
|---|---|
| <ul style="list-style-type: none"> • The presence of institutions that will provide both technical and extension assistance to the raisers to include department of agriculture • Milk processing is a common activity in the province, hence market is assured • presence of ready markets for the products either in raw milk form or processed • presence of established processing center | <ul style="list-style-type: none"> • Inefficient dairy production management • Lack of forage materials • Absence of breeding plans • Low milk production |
| Opportunities | Threats |
| <ul style="list-style-type: none"> • Accessibility to bigger markets in Cebu, Bohol, Negros Occidental and Oriental and Metro Manila | <ul style="list-style-type: none"> • Unpredictable weather condition, which can be unfavorable for dairy production • High market price of goat's milk |

Appendices

Appendix 1: Participants of the goat value chain writeshop

3-6 February, 2013

| | Name | Designation | Organization | Address | Email |
|----|----------------------------|---|----------------------------------|--|--|
| 1 | Dr. Jean-Paul Dubeuf | Past President | International Goat Association | INRA -LRDE Campus Grossetti F- 20250 CORTE, France | Jpdiga.goats@gmail.com |
| 2 | Dr. Krishna Paudel | Senior Resource Mobilization Manager | Heifer International Nepal | G.P.O. Box 6043, Kathmandu, Nepal | Krishna.paudel@heifer.org |
| 3 | Puja Singh | Communication and Networking Officer | Heifer International Nepal | G.P.O. Box 6043, Kathmandu, Nepal | puja.singh@heifer.org |
| 4 | Prakash Karn | Planning, Monitoring and Evaluation Manager | Heifer International Nepal | G.P.O. Box 6043, Kathmandu, Nepal | prakash.karn@heifer.org |
| 5 | Buddi Khatri | Training Manager | Heifer International Nepal | G.P.O. Box 6043, Kathmandu, Nepal | buddi.khatri@heifer.org |
| 6 | Dr. Keshav Shah | Animal Well-Being Manager | Heifer International Nepal | G.P.O. Box 6043, Kathmandu, Nepal | keshav.shah@heifer.org |
| 7 | Raj Kumar Adhikari | Program Officer | OXFAM Nepal | Jawalakhel, Lalitpur Nepal | rajkadhikari@gmail.com |
| 8 | Dr. BKP Shaha | Freelancer/VC consultant | | ICIMOD Tole, Lalitpur-15, Nepal | shahabkp@yahoo.com |
| 9 | Maggie Thomas | Program Assistant | Heifer International | World Avenue 1 Little rock, AR, 72202 USA | maggie.thomas@heifer.org |
| 10 | Dr. Dilip Bhandari | Program Officer | Heifer International | World Avenue 1 Little rock, AR, 72202 USA | dilip.bhandari@heifer.org |
| 11 | Dr. Abhinav Gaurav | Training Officer | Heifer International India | P-5, 208, 2nd Floor, Ocean Plaza, Sector-18, Noida, Uttar Pradesh 201301 India | abhinav.gaurav@heifer.org |
| 12 | Shyam Paudel (facilitator) | Director of Training and Extension | Department of Livestock Services | Harihar Bhawan Lalitpur, Nepal | Shyampdl1961@gmail.com |

Appendix 2: Checklist of goat value chain analysis

| Topic | Subtopics | (Questions (broader |
|-----------------------|---|--|
| Personal Information | Name Address Contact | We can ask and fill in the form or can obtain a business card |
| Type of goat business | Physical function Value addition Experience | <ul style="list-style-type: none"> • How does the respondent add value to the goats and its product? • Where is this in the value chain? • Does s/he change its form (processor), move it (transporter), store it (wholesaler), sell it (retailer) or consume it? |
| Demand | Quantity Type of buyer Seasonality Variety Consumer preferences Price data | <ul style="list-style-type: none"> • Quantity sold normally, e.g., per day/week • To whom do you sell? • Do the volumes of sale change over time? • Are there different varieties? • If so, what is their respective demand or preference? • What is the price variation as per differences in varieties? • Do changes in prices occur over time? • If so, why? • Are there problems selling the products? • If so, what are they? |
| Supply | Source by area Source by type of person Price Quality | <ul style="list-style-type: none"> • Where are your supply areas (geographically)? • Who do you buy from? • Where do you buy from? (meeting point) • At what price do you buy the variety? • Does the price change over time? If so, why? How? • Do you have problems getting products? If so, what are they? |

| | | |
|-----------------------------------|--|--|
| Quality | perishability Post-harvest issues | <ul style="list-style-type: none"> • What is the quality of the product along the chain? • What is the product's shelf life? |
| Storage | Quantity Time Storage problems | <ul style="list-style-type: none"> • How much do you usually store? • For how long? • Do you have storage problems? • Do you experience storage losses? |
| Marketing costs | Forms Proportions | <ul style="list-style-type: none"> • What are your marketing costs? • What is their proportion? |
| Grading and sorting | Grading Incentives | <ul style="list-style-type: none"> • Do you grade or sort? • Do better grades fetch higher prices? |
| Marketing information | Sources Spatial arbitrage | <ul style="list-style-type: none"> • Do you get market information, e.g., on prices? • If so, who from and how? • Is there a relationship between prices in different areas at given times? |
| Price Information | Market power | <ul style="list-style-type: none"> • Who determines the price? • How is the price determined? • If the firm or individual is a price taker, find out why |
| Institutional and legal framework | Associations | <ul style="list-style-type: none"> • Do you belong to an association? • Are there any market regulations? If so, what are they and how do they affect your business? |
| Market structure | Competition | <ul style="list-style-type: none"> • Number of sellers • Is there price competition? • Is there non-price competition? If so, what for? |
| Credit availability | Sources and type | <ul style="list-style-type: none"> • Are there any credit institutions? • Do you use them? • What are their rates of interest? |

Source: Ferris, Mundy and Best (2009). *Getting to Market: From Agriculture to Agroenterprise*, Catholic Relief Services, USA, pp28-29

Appendix 3: An Example of Terms of Reference (TOR) for Meat Goat Value Chain Study

Background:

The study will analyse and document the goat meat value chain in (country Name) considering different goat production systems under various domains and their cost of production along with the existing goat marketing channels to the end markets. Primary data needed for this study will be generated from target districts/counties. Thus collected data will be collated and interpolated with available secondary data to meet the study objectives of identifying options for interventions (along with their pros and cons) for strengthening competitiveness of in-country goat meat production and marketing system. The study will identify key areas of interventions in goat value chain to enable smallholders to become one of the important actors capable of receiving benefit/proportionate share of the trade margins across the value chain in the target areas.

Objectives:

The specific objectives of the study include:

Analyse consumer and traders' perceptions/attitudes towards safe and hygienic meat and make recommendations for increased consumer awareness. Identify quality issues/concerns of consumers across the goat value chain regarding goat meat, quality, price etc.

Analyze current supply and demand system of goats (formal, semi-formal and informal), including marketing volumes, market sheds and seasonality trends. Based on this information, develop options for year-round marketing strategies.

Analyze the various existing goat value chains by production systems and geographical regions (domestic and import from other countries). Calculate cost of production, associated costs and value additions across the entire value chain tiers from production functions to end market dynamics.

Examine the strengths, weaknesses, opportunities and threats of the current goat meat marketing systems along the vertical tiers. Suggest efficient options considering the associated costs and value additions, including the need for cash float in key parts of the value chain.

Compare prices and margins along the goat value chain focussing on competitiveness of in-country goats vis a vis imported goats considering both production quantity and quality.

Briefly examine and assess infrastructure at existing goat collection/marketing sites and identify measures to improve them leading to their sustainable management. Include consideration of how other stakeholders (government, private, etc.) may be involved.

Examine existing live animal and animal products transport systems and suggest practical measures to improve animal welfare conditions.

Give an account of weight loss (in case of meat goat) and other associated cost at all transit points of existing live animal transport system. (from the farm gate to end market)

Assess the concerns and quality of relationships among actors along the vertical and horizontal linkages of the goat value chain including dynamics among the various interest groups (e.g., local government units, municipalities, market operators, traders, importers,

entrepreneurs, processors, etc.). Contributing factors such as ethnic, caste, tribal and socio-economic dynamics should also be considered. Suggest key project interventions/ areas for building trust, capacity, reciprocity and business relationships among these value chain actors in favour of smallholders.

Identify potential enterprises of goat value chain (services/trade) in the vertical and horizontal linkages where smallholders can have the decisive role and stake across linkages of the goat marketing channel thereby eliminating or minimizing opportunities for exploitation by other stakeholders. Also assess employment positions created per unit volume of goat traded.

Suggest strategies for attracting private sector to make larger investment in goat value chain enterprises.

Methodologies:

Generally the value chain study team proposes the methodologies and approaches and later agreed by both parties.

Detailed timeline:

Timetable for the study is prepared together depending upon the urgency of the study and resources available

Detailed budget:

The study team will prepare and propose budget for the entire process agreed by both parties

Reporting format:

An organization conducting value chain study can recommend basic minimum requirements in the value chain report with page limits.

Appendix 4: Template of Goat Value Chain Study Report

Cover Page
Table of Contents
Lists of Tables
Lists of Figures
Abbreviations
Acknowledgments

Abstract (Executive Summary)

Chapter 1: Introduction

May contain the background/rationale/objectives/expected outputs of the study

Chapter 2: Methods, Approaches and Scope of the Study

Chapter 3: Overview (goat sector in the specified region/country)

May contain the following -history of the Industry (if available); demographics; demand-supply; location map (classified into smallholder, commercial); production systems; volume of production; opportunities and challenges of the industry; etc.

Chapter 4: Study Results (per Value Chain segment)

May contain profile/characteristics/costs and margins on/along the VC segments

consumer/market; retailers/traders; transport-logistics; processors/cold chain/bulking/aggregating

producers/production volume/technologies

smallholders associations/coops/private; input suppliers like feeds, forage/seeds, equipment, Business Development Services (BDS), Artificial Insemination Services, Credit/Loans, etc.

Enabling environment (policies, local laws/ordinances; government support; incentives); product variants/attributes; costs/prices/margins along the value chain

Current interventions along the value chain segment (private or government led), etc.

Chapter 5: Discussion/Analysis of Findings

May contain: opportunities, challenges/constraints/gaps, strengths, weaknesses per Value Chain segment;

Current and projected supply-demand; market growth projection; etc. and how smallholder goat producers will be affected or can maximize the opportunities of the industry; whether the industry will be profitable over time which will support the viability or sustainability of the dairy enterprises of smallholders; competitiveness; etc.)

Chapter 6: Recommendations

May include: all interventions necessary for each value chain segment to become viable/

profitable/sustainable/competitive;

interventions in increasing smallholder goat production and income of smallholder producers (costs/prices/margins)

interventions in moving smallholder farmers' organization up the value chain (like marketing and/or processing)

processing, marketing/trading/logistics interventions

input supplies and support services interventions

Laws/ordinances/incentives interventions; etc.

References

Appendices

Further Reading

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M4P, 2008. Making Value Chains Work Better for the Poor: A toolkit for practitioners of the Value chain analysis, Version 3. M4P project, UK Department of International Development.

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