



Ministry of Economy and Development

Report on Value Chain Analysis of the cattle sector in Bobonaro and Lautem districts, Timor-Leste

Prepared for
**Business Opportunities and Support Services
(BOSS) project of ILO Timor-Leste**



Irish Aid

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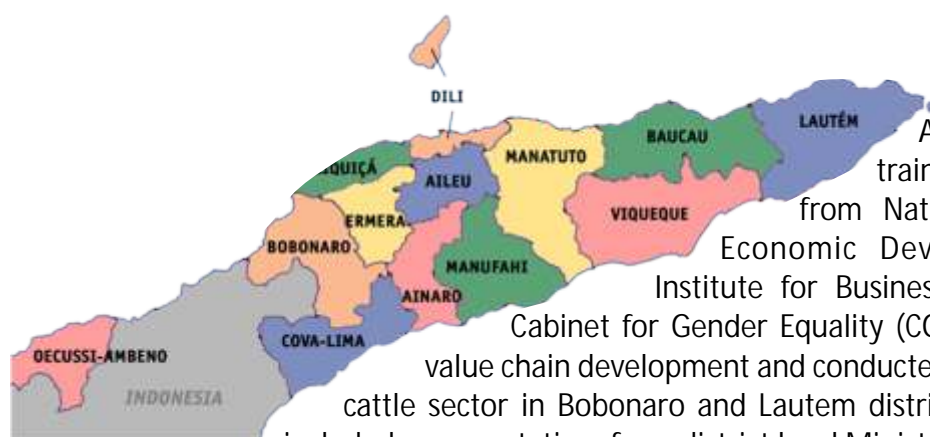
Abbreviations

BOSS	Business Opportunities and Support Services
CCT	Coffee Cooperative of Timor Leste
CGE	Cabinet for Gender Equality
GAHP	Good Animal Husbandry Practices
HH	Household
IADE	Institute for Business Support
ILO	International Labour Organization
MAF	Ministry of Agriculture and Fisheries
MED	Ministry of Economy and Development
MOJ	Ministry of Justice
NDRED	National Directorate for Rural Economic Development
NGO	Non Governmental Organization
RDP3	Rural Development Programme 3
SPS	Sanitary and Phytosanitary
UNTL	National University of Timor Leste
VC	Value Chain
VCA	Value Chain Analysis
VCD	Value Chain Development
VLW	Village Livestock Workers

1. BACKGROUND

1.1. Background information of the cattle value chain initiative

The ILO's Business Opportunities and Support Services (BOSS) project, which resort under the Ministry of Economy and Development (MED), initiated a participatory value chain analysis using the ILO approach to Value Chain Development for Decent Work. The cattle sector in Lautem and Bobonaro districts had been selected by the District Economic Forum as the most potential sector for creating more income and employment opportunities for the poor communities in these districts.



Accordingly, the BOSS project trained a team of selected staff from National Directorate of Rural Economic Development (NDRED), the Institute for Business Support (IADE) and the Cabinet for Gender Equality (CGE) of MED in participatory value chain development and conducted value chain analysis of the cattle sector in Bobonaro and Lautem district. The research team also included representatives from district level Ministry of Agriculture and Fishery (MAF) and Chamber of Commerce and Industry of Timor Leste (CCI-TL). The sense of ownership and commitment to implementing consequent interventions increases by involving the stakeholders in the whole research process. The exercise began in early August 2011, and was completed in mid-September 2011.

1.2. Justification of selection of the cattle sector

The cattle sector is a sub-sector of the livestock sector, which falls under the agriculture sector in broader economic terms. Raising cattle is one of the most traditional livelihood activities in Timor Leste. In the country as a whole, 31% of households own cattle. The cattle sector is important particularly to the rural poor households owing to the following reasons:

- Cattle provide income and hold potential for increasing the household income
- Cattle is an asset that is kept for ceremonial purposes or sold in situation of cash emergency requirements
- Cattle can be raised without advanced technology
- There are large areas of natural pasture lands

In keeping with the objectives of the project as well as the VCD philosophy, the selection of the cattle sector in Bobonaro and Lautem districts can be justified on the basis of the below:

- Involvement of rural / poor households is considerably high in the sector
- It is a common small scale livelihood option in the districts
- Presence of a clear value chain
- Input resources, particularly grass lands are adequately available within the selected districts
- There are opportunities for both export and expanding local market
- There is ample scope for improvements

1.3. Objectives of the value chain analysis of the cattle sector

The main objectives of the value chain analysis in the cattle sector in Bobonaro and Lautem districts are:

1. To get an overall understanding of the value chain including number and type of players involved at each level of the cattle value chain, relationship between actors and governance structure
2. To analyze and map the value chain for a more comprehensive understanding of constraints and their root causes, market failures and dysfunctionalities in the value chain
3. To identify specific upgrading interventions that are feasible by using available local resources, that can be easily implemented in short and medium term, as well as solutions that give an overall sustainable direction to the cattle sector

The value chain development initiative will increase the capacity of NDRED and IADE in making thorough sector analysis and design interventions to develop the value chain. IADE will also be able to design business development services responding to the specific needs of the sector.

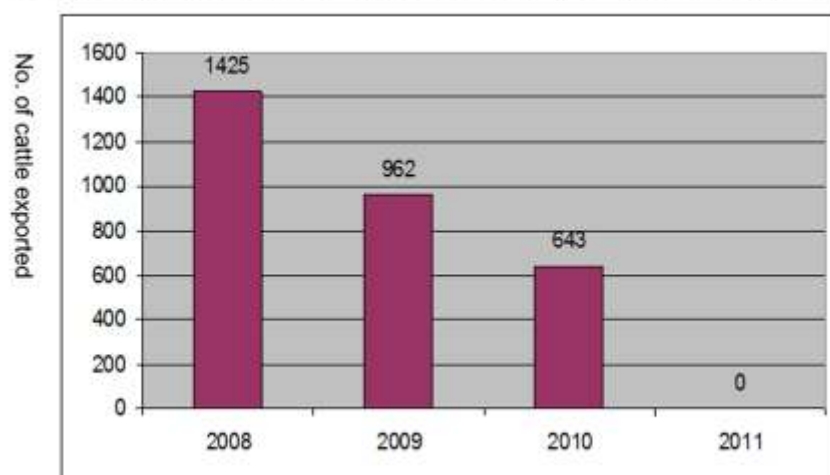
1.4. Background information about the cattle sector in Timor Leste

In 2010, the estimated number of cattle in Timor Leste was 161,654 heads¹. The sector comprises mainly of smallholders keeping on average two to five heads each. There are 206,000 ha of natural grazing land in the country, which is mostly unutilized. Grazing is mostly on communal land pastures and crop residues. Cattle are kept primarily for status and consumption at traditional ceremonies rather than for commercial purposes. Most farmers keep cattle to sell for cash in emergency, e.g. as a bank saving. The local market for beef is growing, an estimated 20 -30 heads are slaughtered per day in Dili (approximately 9,000 per year) at 10 slaughtering points located in the capital. The average retail price of local beef is around USD 6 per kg. About 200 Mt of frozen beef is imported annually, mainly from Australia and New Zealand and sold at USD 8-12 per kg. Import substitution potential equals 1,400 local cattle annually². Traditionally, Timor Leste has been a cattle exporting country, in 2005 the export of male live bulls to Indonesia reached approximately 3,000 heads but this has decreased since and in 2010, only 643 heads went for export. In 2011, the export stopped completely. Concurrently, Indonesia imports more than 750,000 live cattle per year from Australia. Figure – 1 below shows the export volume of live cattle for the last four years.

¹Population and Housing Census of Timor-Leste, 2010

²Diagnostic Trade Integration Study (DTIS), 2010

Cattle export has declined over the last four years



Source: Data Statistik DNQB March 2011

Figure – 1: Cattle Export to Indonesia

1.4.1. Cattle sector in Bobonaro district

Bobonaro district is located in the western most part of the island, approximately 149 km by road west of the capital Dili. It occupies 1,376 km², and extends nearly 100 km from north (the coast) to south, following the border between Indonesia and East Timor. It consists of six sub-districts with 50 villages (sucos). The district capital, Maliana, is the 3rd biggest city (15,800 inhabitants) after Dili and Baucau. The population of Bobonaro district is 92,049 (2010). Bobonaro is the neighboring district to Indonesia, the former main importer of cattle from TL. Bobonaro is among the top three districts in Timor Leste that are most suitable for livestock. It is estimated that 88.8% of households involved in livestock raising³. Cattle, mainly the Balinese breed, is the main livestock type with 29,235 heads, representing 18% of the national count, There is 18,061 ha of native pasture land in Bobonaro district.

1.4.2. Cattle sector in Lautem district

Lautem district is on the eastern end of the island and has five sub-districts comprising 34 villages (sucos). It occupies 1,702 km and is located approximately 215 km by road east of the capital Dili. The population in Lautem district is 59,787 and 84% of the households are involved in rearing livestock. Lautem has large natural pasture areas (39,994 ha) where animals traditionally forage. It has 16,874 cattle⁴. It is an important district for livestock, exporting to Dili and other nearby districts of the country.

Bobonaro and Lautem districts together account for one fourth of pasture lands and cattle population of the country. It is graphically illustrated in Figure – 2 below.

³Population and Housing Census of Timor-Leste, 2010

⁴Population and Housing Census of Timor-Leste, 2010

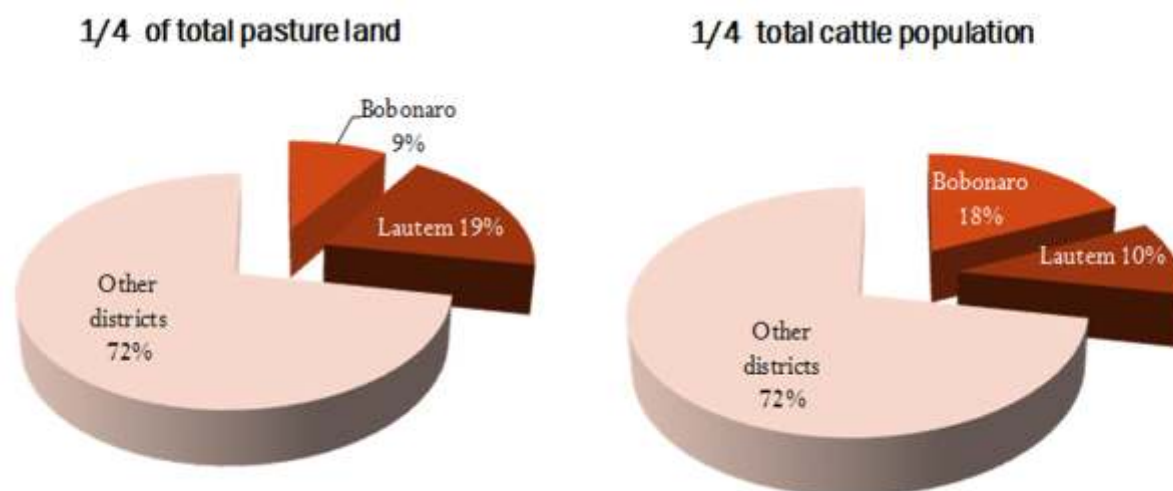


Figure – 2: Cattle population & pasture lands

2. VALUE CHAIN DEVELOPMENT

A value chain is defined as a sequence of target-oriented combinations of production factors that create a marketable product or service from its conception to the final consumption. This includes activities such as design, production, marketing, distribution and support services up to the final consumer⁵. The activities that comprise a value chain can be contained within a single firm or divided among different firms, as well as within a single geographical location or spread over wider areas. The term Value Chain refers to the fact that value is added to preliminary products through the combination of other resources (for example tools, manpower, knowledge and skills, other raw materials or preliminary products). As the product passes through several stages of the value chain, the value of the product increases.

Value chain development is about making the consumer/customer at the end of the chain happy. If enterprises cannot satisfy the needs (or requirements, preferences, desires) of their buyers, the buyers will sooner or later turn to other suppliers. Value chain development is therefore a market-oriented approach. All activities of a particular chain are directed towards the market. It is therefore important to understand that all stakeholders along a particular value chain need to cooperate and coordinate their activities to satisfy the needs of the end consumer. If there is one weak link in the chain, the competitiveness of the whole value chain is endangered. It is not only enterprise-internal factors (such as labour costs and productivity) that matter to make a sector more competitive, but also factors related to the business environment eg. duration of getting required license or permits, taxes, administrative procedures etc., and availability and accessibility to various business development services required for the smooth functioning of the value chain. Figure – 3 below shows the relationship among these functions.

⁵Local Value Chain Development for Decent Work – Matthias Herr

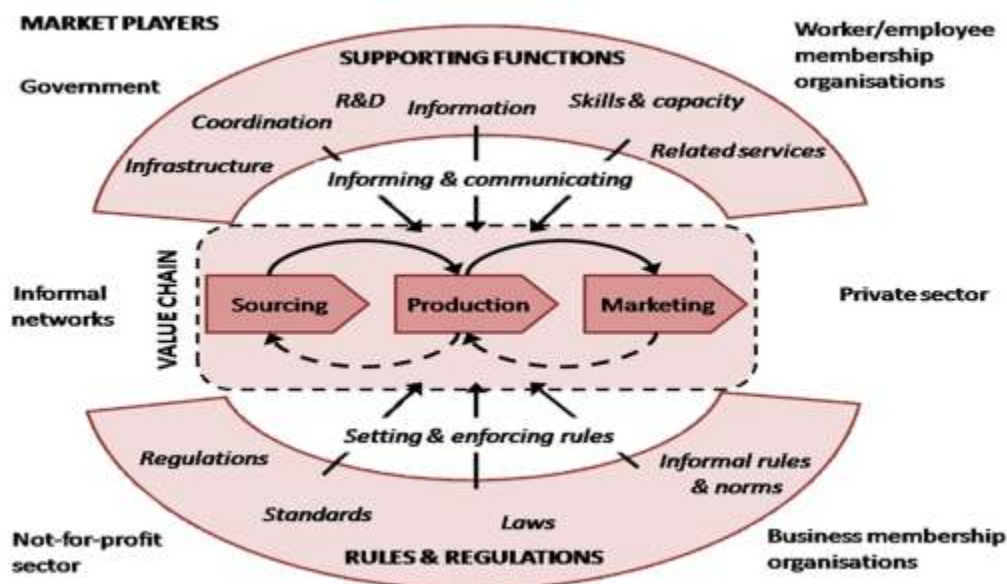


Figure - 3: Market System

Source: Springfield Centre

Taking a value chain approach to economic development and poverty reduction (that includes creation of Decent Jobs) involves addressing major constraints and capitalizing on opportunities faced by input suppliers, producers, processors, traders and other businesses at multiple levels and points along a given value chain. This will inevitably include a wide range of activities such as improving access to necessary inputs, developing the capacity and skills of human resources, improving working conditions and productivity, strengthening the delivery of business and financial services, enabling the flow of information, facilitating improved market access, or increasing access to higher-value markets or value-added products. Value Chain Analysis identifies opportunities and constraints of a particular local/regional sector and analysis its market integration. The end result is an action plan that proposes various solutions addressing identified opportunities and constraints.

ILO's participatory value chain development approach consists of a series of workshops, interviews and focus group discussions, in which all value chain stakeholders are included. This participatory approach is complemented by secondary research to underpin the findings with data and figures. The approach consists of the following modules:

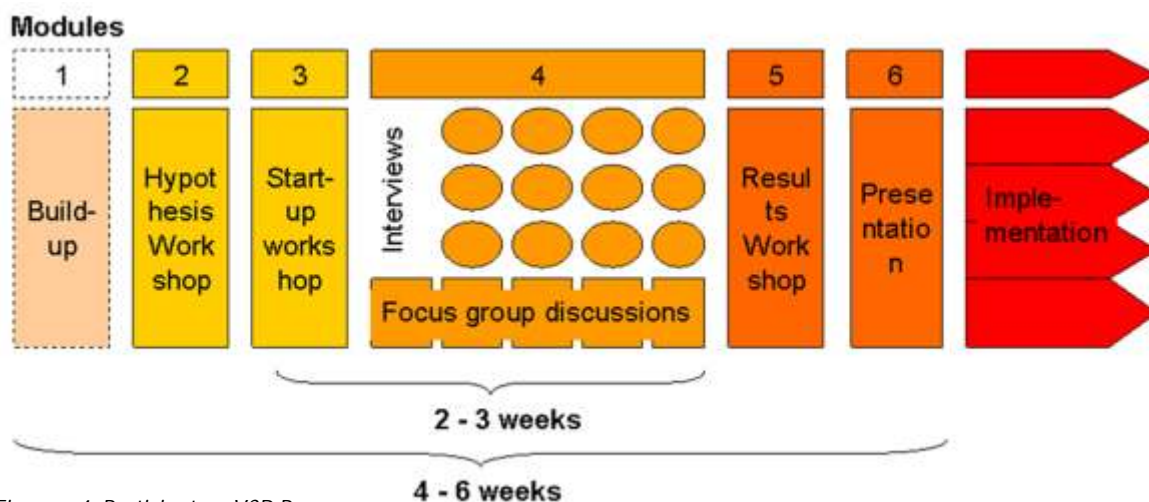


Figure – 4: Participatory VCD Process

3. THE FINDINGS OF THE VALUE CHAIN ANALYSIS

This section reports mainly on the findings of the field research and the assessment of the cattle value chain in the two districts and the outcome of the stakeholder workshops.

3.1. The cattle value chain map

Five levels can be identified in the main cattle value chain in the two districts:

1. Input supply
2. Cattle farming / production
3. Collecting and transporting
4. Processing (slaughtering & butchering)
5. Marketing / selling



Figure 1.2 illustrates the simple value chain of the cattle sector in Lautem district. The value chain map of the Bobonaro district was very similar to that of Lautem.

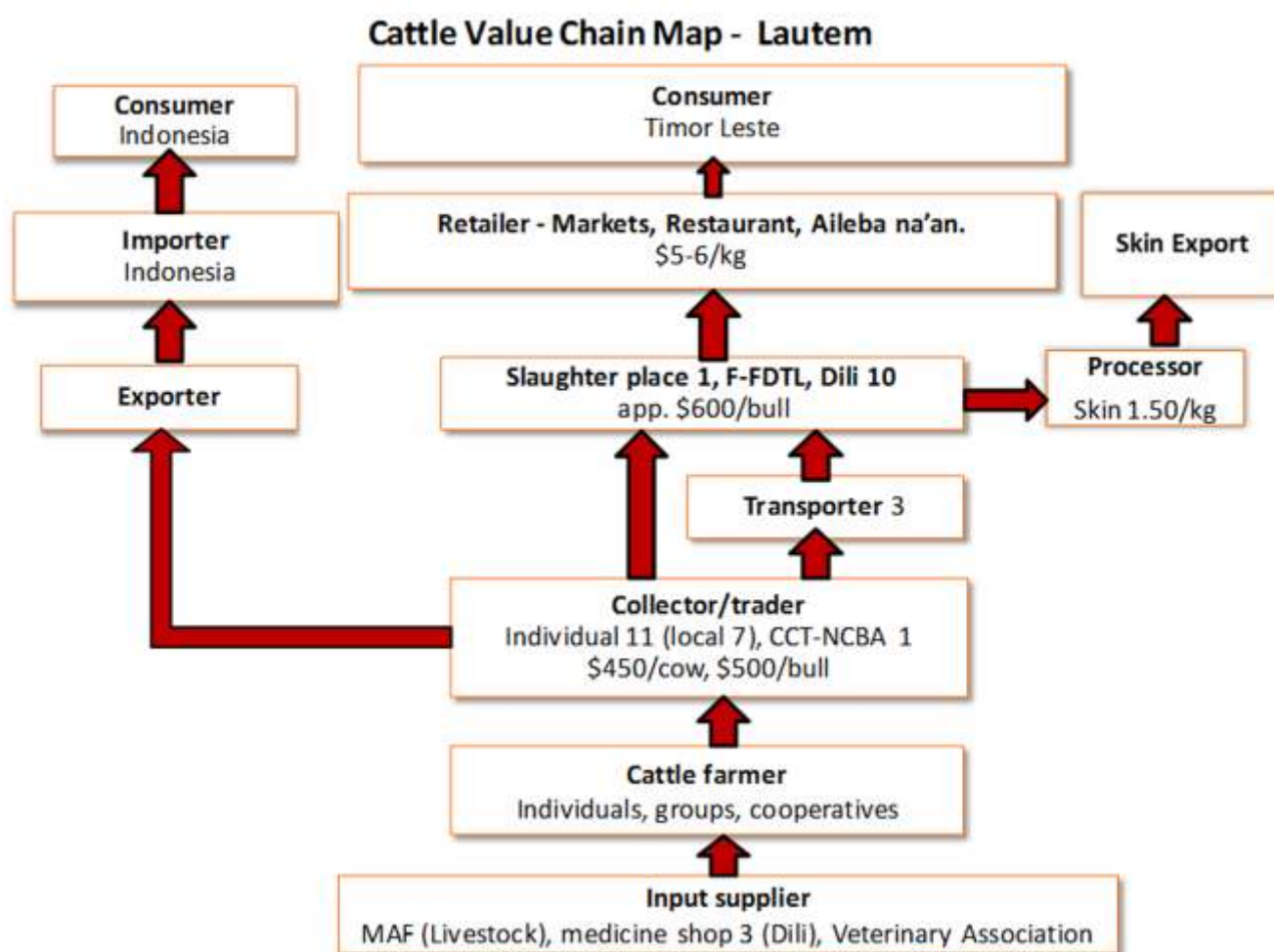


Figure – 5: Simple Value Chain map of cattle sector in Lautem district

3.2. Present situation of actors and supporting services in the cattle value chain

The value chain map illustrates six groups of actors, including the exporters that until last year were active in the sector. The following section summarizes the present situation of each level in the districts.

3.2.1. Input suppliers

Main inputs in the cattle sector are; 1) calves, 2) cattle feed (grass, legumes, concentrate feed, mineral mixtures), 3) medicine and vaccine, 4) tools and other equipments (equipments needed for slaughtering and butchering, ropes, etc.).

1) Calves:

There are no formal breeding farms and regular calves suppliers at present. Few medium-scale farmers supply limited number of calves intermittently when there is a demand from MAF or NGOs. MAF distributes calves to some selected poor farmers for free, and a few NGOs have distributed calves in several places under various donor funded projects.

2) Cattle feed:

Most of the farmers let their cattle graze freely and unrestricted on natural pasture lands, only few farmers grow limited amount of Elephant grass (*Pusa giant napier*) to feed their cattle during the dry season. The growing of Elephant grass was introduced to farmers during the Indonesian period and later by NGOs and the Don Bosco Fuiloro school in Lospalos. However, it has not been as successful as foreseen due to various reasons including lack of demand from other farmers to buy it and limited understanding of the benefit of feeding the cattle with the grass. Only very few cattle collectors who do fattening buy grass from nearby grass land owners at the price of USD 70 – 80 per hectare. There is no practice of feeding cattle with concentrate feeds or mineral mixtures and hence there are no suppliers of such inputs at present. Plenty of pasture lands are available, but underutilized and degraded to some extent due to weeds (eg. *Chromolena odorata*) and lack of water in the dry season.

3) Medicine and vaccine:

There are three private sector medicine suppliers in Dili, and the Veterinary Association in Lautem district that is supplying limited stock of medicine. The only supplier for vaccine is the Ministry of Agriculture and Fisheries (MAF). The Ministry imports vaccines and distributes through their district offices once a year, district offices contract the service of Village Livestock Workers (VLW) to vaccinate the cattle. MAF spends \$ 0.14 per dose of vaccine and \$ 0.15 per dose to pay for the VLWs. Generally, vaccination should be done once in nine months, but it happens once a year at present. The Ministry has reduced the import of vaccine by 50% this year due to budgetary constraints, it is estimated that the supply of vaccine in 2011 is sufficient only for 50,000 cattle. At present The Government's annual vaccination programme reaches only 30-40 per cent of the cattle population, to have any effect at least 80 per cent must be vaccinated. Spread of cattle diseases is high during the rainy season from November to April, therefore, vaccination should be completed before the rainy season starts, and it fails sometimes due to delay in supply of vaccine on time. Another reason for the inefficient outreach of the vaccination is that Village Livestock Workers lack both resources and incentives to implement the campaign fully.

3.2.2. Cattle Farmers

The majority of cattle farmers owns 2-5 heads, there are about 30-40 farmers per district having approximately 50 -100 cattle and 8 -10 farmers having more than 100 heads.



Cattle farmers in Bobonaro

There are small farmer groups in some villages and there is an active farmer cooperative headed by a woman in Lolotoe sub-district in Bobonaro. Nearly all the farmers practice free grazing on natural pasture lands for their cattle. Many farmers do not consider raising cattle as a business but rather as an asset to be sold in a situation of cash emergency requirements. The most common cattle breed is Balinese cattle, which is well adapted to the climate of Timor Leste and easy to handle. The productivity of the sector is very low, farmers use traditional

knowledge and lack understanding about more modern good agricultural practices. The cow does not calve annually and it takes over five years to grow a bull to 280 -300 kg weight, when the animal can be sold. A grown bull is sold at USD400 – 500 at village level, and at around USD600 in Dili. The price of a grown cow is USD300 – 400. Because of the limited outreach of vaccination and bad nutrition, cattle diseases and mortality have become a key issue. Abortions and calf mortality also remains at a high level. A recent study conducted by the Susubeen project (Xanana Trust Fund/USAID) found that out of a sample of 16 Bali cattle, 69% tested positive for Brucellosis.

“Over 400 cattle of our cooperative members died from diseases last year, it happens every year between November and March” – Farmer cooperative, Lolotoe, Bobonaro District.

3.2.3. Collectors

There are about 6 – 8, all men, local collectors in each of the two districts, they buy live cattle (mainly grown bulls) from farmers and sell to buyers in Dili or at times to the buyers from Indonesia (some informal export take place along the borders of Bobonaro, particularly during Muslim festive season). In addition, about 4-5 collectors from Dili or nearby district (Baucau in the case of Lautem) come to the districts to buy cattle from farmers or from the local collectors. Some collectors do fattening of cattle over a period of 2-4 weeks before selling. However, both buying and selling are based on the appearance of the animal instead of weight and therefore, the motivation to do fattening is limited. Some local collectors also do the slaughtering and sell meat in the local market. Local collectors supply cattle only to one or two reliable and known buyers in Dili as sales take place mainly on credit. Lack of access to credit has resulted in cash flow problem among collectors/buyers and has limited their buying capacity as farmers are reluctant to sell if not being paid directly. A few years ago some of these local collectors could sell over 100 heads per month to Indonesian buyers, which came to a complete halt in 2011 because of the Indonesian import ban on Timor Leste cattle. Collectors sell about 15 -20 heads per month to Dili buyers at present. Collectors in Bobonaro district hire trucks to transport the cattle to Dili, a truck can transport 8-10 heads per trip, which cost USD 100 -150. There are three specialized cattle transporters in Lautem district, they have good relationship with local collectors and buyers in Dili, and they operate 2-3 times per month and charge USD 250 per trip. The transport cost is reported high due to bad road conditions and the long distance.

3.2.4. Processor / slaughtering and butchering



Slaughter of cattle
behind Comoro
market, Dili

There is no proper national slaughter house or processing plant at present, however MAF is currently rehabilitating the abattoir in Tibar, close to Dili. There are about 10 slaughter points in Dili and three meat markets (Talibessi, Hali Laran and Comoro) where the equivalence of about 20-30 cattle are sold daily. There are twelve slaughter entrepreneurs, including women, in Bobonaro and four in Lautem district. In Lautem there is a slaughter place at the back of the main market. In Bobonaro the slaughtering takes place at the homes of the slaughterers. The slaughter place in Lautem is relatively new but mismanaged, it is unhygienic and there is no water or electricity. Slaughtering is done only on Saturdays on the market day. In Lautem about 2-3 cattle per week is slaughtered and in Bobonaro 2-3 cattle are slaughtered per day. Meat is sold at the price of USD5 – 6 per kg, bones at USD2.50 to the restaurants in the town and directly to the customers in the market. There are about 3-4 restaurants in each district that serve beef dishes, which buy about 20 kg of beef per week. Skins / hides are dried and sold to buyers in Dili who export them to Indonesia. Prices of hides were sold USD 0.80 per kg by slaughters in Bobonaro while the price in Lautem was USD 1.50 per kg.



Beef selling point
in Mallana market

3.2.5. Exporters (Former Exporters)

Before the ban on cattle export to Indonesia, there were three main live cattle exporters in the country, CCT, Rui Nainou and Joao Berloco. The last consignment was reported in August 2010. In addition, there were a few district based exporters, whose export licenses now have expired. However, informal export continues along the border of Bobonaro district, particularly during the Muslim festive season.

"My cattle export to Indonesia slowed down in 2005, before that I could easily send cattle across to Atambua twice a month, about 80 to 100 cattle each time." (Cattle exporter – *The Jakarta Globe* – February 06, 2011)



cattle exporter being interviewed by the team

3.2.6. Supporting service providers:

1) Ministry of Agriculture and Fisheries (MAF)

The Livestock National Directorate of MAF provides extension and vaccination services to cattle farmers through their District Livestock Officers. In addition, MAF occasionally distributes cattle to selected poor households. The generic Agriculture extension officers are supposed to provide extension services to the cattle sector as well. MAF has planned to implement a pilot program to promote cultivation of grass with the support from Plan International and Korean Government. MAF is also piloting new vaccination model with the support of RDP3 in Manufahi.

2) Village Livestock Workers (VLW)

Village Livestock Workers are self-employed individuals contracted by MAF to carry out the annual vaccination programme. In 2007, they were given a one-two weeks training on livestock vaccination and treatment of diseases. At the end of the training they were given a set of tools and medicines. They are to make an income by providing treatment and medicine. However, they are referred to as “volunteers” and face many difficulties in performing their tasks. MAF assigned one VLW per Suco, some continue, some already stopped, others were absorbed by MAF and became Agriculture Extensionists. Accordingly, there are only a few active VLWs, for instance there is only one VLW in the Lolotoe sub-district with seven Sucos. In Lautem, there are 20 VLWs but only a few are active at present.



Mr. Acio Pereira Lima (VLW in Lautem)

“We are paid only 15 cents per cattle vaccinated and many farmers are not committed to vaccinate their cattle” – a VLW in Bobonaro District

3) Livestock Association

The VLWs in Lautem district have established the Livestock Association with the support of an NGO. The association is at present registered as a NGO and not as an association as they have had trouble registering properly with Ministry of Justice (MOJ). They provide selected medicines and disease treatment to livestock farmers, and they involve in implementing the vaccination program of the Government. Further, they have conducted training programmes for cattle farmers with the support of NGOs.

4) Non-Government-Organizations (NGO) and Church

A number of NGOs, (eg. World Vision, CARE International, Concern (now HIVOS) implement different activities for cattle farmers. World Vision and CARE have purchased calves and given them to farmers for fattening. HIVOS is working on improving cattle productivity by for example introducing Elephant grass production.

5) Coffee Cooperative of Timor (CCT)

CCT were one of the main cattle exporters to Indonesia and implemented a cattle fattening programme in selected districts. With the halt of export, they have largely down-scaled their activities in the cattle sector. They supply about 10 bulls per month to slaughters in Dili. They are no more operating in Lautem but still in Cova Lima and Oecusse. CCT buys bulls at about 100 – 150 kg and give to selected farmers for fattening. CCT then re-purchase the bulls once they grow to about 250 – 300 kg and sell. 75% of the selling price goes to the farmer who raised the animal.

6) National University of Timor Leste (UNTL) - Agriculture Faculty

The faculty of Agriculture of UNTL offers a 3-years Diploma course in Animal Health to develop the required human resources for the livestock sector. Their intake is 35 students per year and the first batch of student will complete their course end 2012. In addition, they enroll about 400 students in the five year Degree Course in Agriculture, of which 120 students specialized in livestock in 2010. Both courses have practical training as part of their last semester, and students are placed in Hera Farm or other selected farms.

7) Financial service providers

Access to financial services is needed for the value chain actors in the cattle sector, to support cattle raising and the supply of cattle and cattle products to the market making the transition from subsistence cattle farming. Particularly, the collectors who purchase grown cattle from farmers suffer from cash flow problem.

The overall access to finance in Timor Leste has grown steadily since independence, from complete destruction of all access points in 1999 to an estimated 13% financial inclusion in 2009. Coverage is moderate; 38% of the population has a bank or MFI branch in their sub district. There are three foreign-owned banks, one Timorese (government- owned) bank, two microfinance institutions (Tuba Rai Metin and Moris Rasik), approximately 25 credit unions of varying degrees of development, Western Union, and an array of pawn shops offering retail financial services. There is a potentially large unmet demand for microfinance with market size estimates of between 275,000 and 400,000 clients. However, effective demand is probably lower given the slow growth of established providers and current poor state of infrastructure⁶.

THE GENDER DIMENSION OF THE CATTLE SECTOR

The cattle sector in Timor Leste is dominated by men, they constitute the majority of small, medium and large farmers, and most collectors and processors are men. Although the cattle is a household asset, the animal is considered the possession of men. This is demonstrated by the difficulties of finding women to interview among farmers (not even 10% of respondent).



In the cattle sector female actors are 'invisible'. They are involved in several activities which add value to the chain but their work is neither acknowledged nor paid. Indeed, interview showed that women are usually involved in activities such as feeding and taking care of the animals. However, their key role is described as assisting men ('ajuda'). Female family members also perform accounting and financial activities assisting their fathers/husband/brothers in cattle marketing/selling.

⁶[http://www.bwtp.org/files/BWTP%20Industry Update%201%20-%20Microfinance%20in%20Timor-Leste.pdf](http://www.bwtp.org/files/BWTP%20Industry%20Update%201%20-%20Microfinance%20in%20Timor-Leste.pdf)

There are few women entrepreneurs involved in slaughtering and retail and about 20% of VLWs are women.

The control over income generated from cattle seemed to be fully with men. Only one leading role was found in the short field research and it was the Manager of the Farmer Cooperative in Lolote sub-district in Bobonaro, as she plays a good leadership role in the cooperative.

DECENT WORK DEFICIT

The existing employment arrangements in the cattle sector are highly informal. Majority of actors in the sector being micro or small scale, use their own family labour. Children are involved in the sector, looking after the rummaging cattle herds. The work of the children were described as not interfering with school, as caring for cattle was after-school activity for most. There were anecdotal stories of children being harmed, for example one child was collecting leaves off a tree, to feed the cattle, when he fell down and sustained fatal injuries.

The limited availability and outreach of training and skills development for farmers inhibits the development of the sector. In regard to occupational health and safety, the highest risk for injuries is found in the slaughtering process both in the handling of the cattle and the beef. Limited concern with hygiene is also a concern not only for the processors but also for the consumers.

3.3. Strengths, weaknesses, opportunities and threats at different levels of the cattle value chain

The following table summarizes Strengths, Weaknesses, Threats and Opportunities (SWOT) that were identified as a result of the VCD exercise for every level of the cattle value chain.

Value Chain level	Strengths & Weaknesses	Opportunities & Threats
Input supply	<p><i>Strengths:</i></p> <ul style="list-style-type: none"> • Availability of natural pasture lands • Availability of well adapted Balinese cattle • Availability of Napier grass (Elephant grass) • Availability of private medicine suppliers in Dili • Veterinary Association and VLWs 	<p><i>Opportunities:</i></p> <ul style="list-style-type: none"> • To setup breeding farms & supply calves • To expand the cultivation of elephant grass • Farmers are willing to pay for medicine
	<p><i>Weaknesses:</i></p> <ul style="list-style-type: none"> • Lack of medicine and veterinary knowledge at district level • Lack / insufficient supply of medicine and vaccine • Lack of cattle crush to restrain animals for vaccination • Low commitment of farmers to vaccinate • Shortage of cattle feed in dry season • Insufficient number and outreach of VLWs / low motivation of VLW • Lack of equal distribution of resources and income among women and men 	<p><i>Threats:</i></p> <ul style="list-style-type: none"> • Decrease quality of calves due to inbreeding and sell-off of the best bulls • Degradation of pasture lands • Spread of cattle disease, eg. Septicemia haemorrhagic is endemic to the country, leading to increasing cattle mortality

Value Chain level	Strengths & Weaknesses	Opportunities & Threats
Cattle Farming	<p><i>Strengths:</i></p> <ul style="list-style-type: none"> • Government is committed to developing the sector • Agriculture University, agriculture degree and animal health diploma course exist • Existing cattle farm cooperatives / groups • Availability of land and labour 	<p><i>Opportunities:</i></p> <ul style="list-style-type: none"> • To increase productivity of farms through further improved farming practices • Development of the sector will contribute to increase in income and jobs
	<p><i>Weaknesses:</i></p> <ul style="list-style-type: none"> • Inadequate extension and veterinary services • Low productivity linked to lack of knowledge/skills • Poor access to information and training • Farmers lack of business orientation, cattle are kept for traditional ceremonies rather than for business • Lack of access to market information, high illiteracy and lack of role models • Lack of proper disease control mechanism 	<p><i>Threats:</i></p> <ul style="list-style-type: none"> • Spread of cattle diseases, increase infertility and mortality
Collection & Transportation	<p><i>Strengths:</i></p> <ul style="list-style-type: none"> • Availability of experienced collectors • Availability of established transporters 	<p><i>Opportunities:</i></p> <ul style="list-style-type: none"> • Increasing local demand • Promotion of cattle fattening
	<p><i>Weaknesses:</i></p> <ul style="list-style-type: none"> • Lack of sufficient demand with the halt in export, lack of market information and access to alternative markets • Lack of transport facilities, poor road condition leading to high transport cost • Weak access to credit / Micro Finance • Price is based on the appearance of the animal not the weight • Lack of cattle market/collection point in districts and sub-districts 	<p><i>Threats:</i></p> <ul style="list-style-type: none"> • Increasing cattle prices
Slaughtering / processing	<p><i>Strengths:</i></p> <ul style="list-style-type: none"> • Government commitment to establish abattoir at national level 	<p><i>Opportunities:</i></p> <ul style="list-style-type: none"> • High potential for profitable slaughter and processing business • Potential for import substitution
	<p><i>Weaknesses:</i></p> <ul style="list-style-type: none"> • Lack of proper slaughter houses • Bad conditions in present slaughter places, no water, no electricity, lack of required tools and equipments • Lack of modern slaughtering and butchering techniques, knowledge and skills • Lack of legislation and system to ensure the beef quality through inspection and enforcement of law 	<p><i>Threats:</i></p> <ul style="list-style-type: none"> • No veterinary check of animal before and after slaughter and low hygiene handling the meat lead to health risk for consumers

Value Chain level	Strengths & Weaknesses	Opportunities & Threats
Marketing	Strengths: <ul style="list-style-type: none"> • Availability of an established distribution network • Existing supermarkets that today sell imported beef 	Opportunities: <ul style="list-style-type: none"> • Potential to re-activate export • Potential to expand local market and substitute imported meat
	Weaknesses: <ul style="list-style-type: none"> • Lack of SPS certification facilities • Low beef quality / hygiene • High price of cattle and beef • Lack of proper retail facilities at district level 	Threats: <ul style="list-style-type: none"> • Competition from beef importers

3.4. Main constraints in the cattle value chain

Main constraints in the cattle value chain according to the market system is illustrated in the Figure – 6 below.

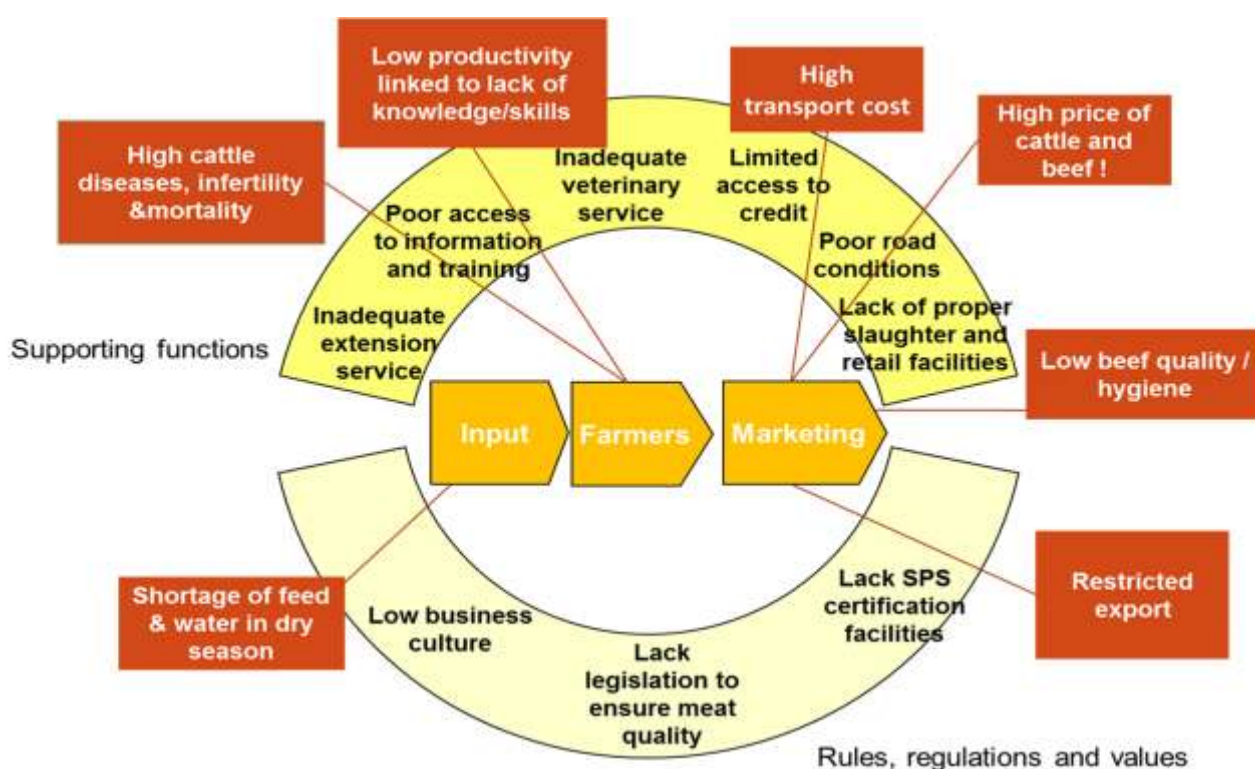


Figure – 6: Main constraints in the cattle value chain

3.5. Cattle value chain development proposals

Based on the research findings, a number of interventions were identified to improve the competitiveness of the sector. Successful implementation of these interventions will have positive impact on the growth of the sector, the income of the cattle farmers and generate new jobs for women and men in the sector.

The BOSS project will not intervene in all of the below listed interventions. Following the result presentation, the project will make a detailed activity plan. BOSS will coordinate and liaison with other organizations supporting the sector to ensure maximum synergies and also look to attract new organizations/actors into supporting the sector.

These are the four intervention areas and main activities:

1) Improve the efficiency and effectiveness of the veterinary service and availability of inputs

- Recruit regional veterinarians and establish regional veterinary centers
- Train Village Livestock Workers (VLW) and Extension Officers on production of cattle food (forage, silage, etc), cattle health and reproduction
- Launch an information campaign on diseases and treatment
- Promote establishment of breeding farms

Shortage of feed in dry season, cattle diseases, infertility and mortality has become key constraints that hinder the growth of the sector. One of the root causes of this situation is inadequate veterinary and extension services in the districts. The implementation of above proposals will help to minimize cattle deaths due to diseases and to improve the productivity of cattle farming.

2) Improve farmers knowledge and skills on proper methods of raising cattle and promote them becoming more business oriented

- Develop Good Animal Husbandry Practices (GAHP)
- Develop training material based on GAHP
- Train extension staff and VLW on cattle feed/ fattening
- Implement information campaign on GAHP (video, radio, TV)
- Establish model farms and link with practical training for students of the Agriculture University
- Train VLWs and farmers on business management
- Implement a social marketing campaign to promote cattle farmers to become more business oriented.

Lack of business orientation among farmers, low productivity linked to lack of knowledge/skills, poor access to information and training and inadequate extension service are major constraints at the farmer level of the cattle value chain. Implementation of these activities will lead to improved knowledge and skills among farmers so that they apply good cattle farming practices. Business orientation of cattle farmers in addition to improving their knowledge and skills is vital to improve the productivity and competitiveness of the sector and to achieve the expected outcome of higher income and more jobs in the sector.

3) Improve the quality and productivity of slaughtering and meat processing

- Rehabilitate the abattoir in Tibar and improve the conditions of district slaughter houses
- Set up inspection system to control the quality of meat
- Train slaughters and butchers on:
 - Modern slaughtering and butchering techniques
 - Business management
 - Health and sanitation
- Pass and implement legislation on meat quality standards

Lack of proper slaughter and retail facilities, poor slaughtering and butchering practices, and low concern for quality and hygiene limits the potential to eventually substitute imported beef with locally produced. Value chain actors involved in slaughtering, butchering and retailing have limited technical and business management skills. Further, the lack of legislation and inspection system causes low quality and hygiene, without standards people will not change their current practice. The expected impact of above activities will be availability of quality meat in the market that leads to higher demand for local beef and hence growth of the sector.

4) Re-activate export of live cattle to Indonesia

- Establish Sanitary and Phytosanitary (SPS) certification facilities
- Improve the capacity of the national laboratory to diagnose cattle diseases
- Map existing cattle diseases in the country
- Establish trade agreement with Indonesia

The ban on import of cattle from Timor Leste to Indonesia is due to lack of Sanitary and Phytosanitary (SPS) certification. This has negatively impacted on the business of main exporters, the district collectors and the income of cattle farmers. The local demand is still not sufficient to absorb the supply of bulls. Therefore, re-activating the cattle export will be an important factor to realize all the other interventions as the pulling-effect of the export market is an important motivator for farmers to increase their productivity.

5) Access to finance

- Collaborate with Micro Finance Institutions (MFI) to develop credit model preliminary offered to collectors and slaughterhouse owner/managers
- Explore the possibility to extend the credit model to farmers

The need for credit is especially evident among cattle collectors. Improving their cash flow would result in more cattle being bought and farmers paid cash up-front. Collectors would also not have to depend on a few buyers for providing cash.

Finally, the overall focus of the proposed interventions is to improve the market system of the cattle value chain in whole, the link between the proposed interventions and the key elements of market system is illustrated in Figure – 7 & Figure – 8 below.

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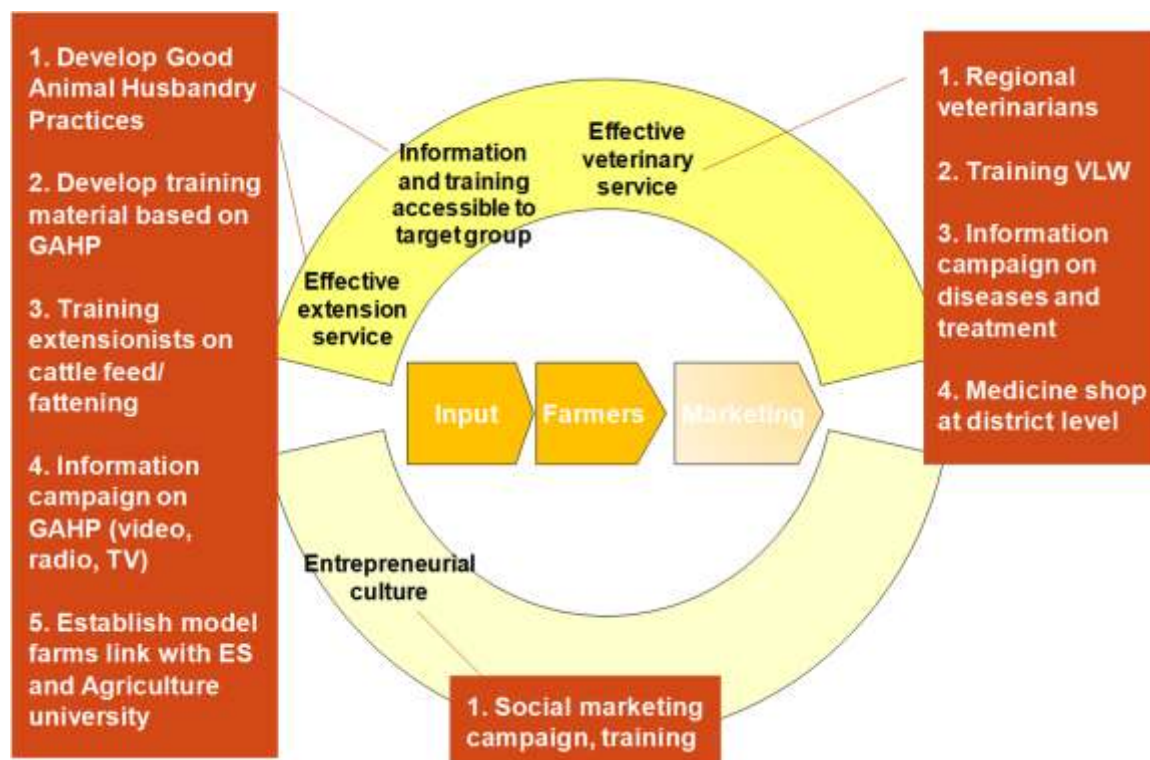


Figure - 7: Solutions in the cattle value chain – input & farmers

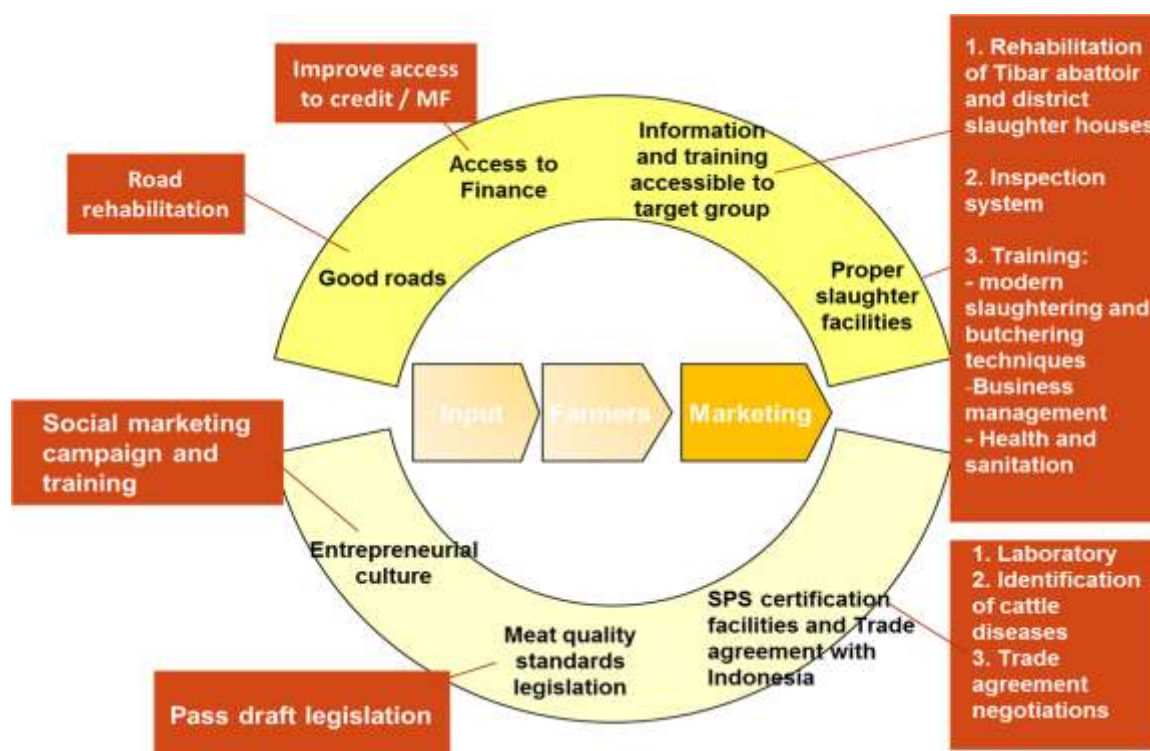


Figure – 8: Solutions in the cattle value chain - marketing

4. OUTCOMES OF THE NATIONAL WORKSHOP

4.1. *National workshop*

The result of the research was firstly presented in respective district and consequently at national level. The objective of the national presentation was to:

- Present the result of the research from two districts to national level stakeholders
- Validate the findings and get stakeholders feedback on proposed interventions
- Seek support in implementing the proposed solutions
- Facilitate linkages between stakeholders

The workshop was chaired by the Minister of Economy and Development and was attended by key national and district level stakeholders relevant to the development of cattle sector, including the Secretary of State for Livestock (MAF), Vice-President of Chamber of Commerce and Industry TL, District Administrator of Lautem, President of CCI Bobonaro and other relevant government authorities, private sector value chain actors, non-governmental organizations and development organizations.

The presentation included an outline of the theoretical framework used in the research, defining value chain and the market system. It was followed by a short overview of the cattle sector in Timor Leste and the presentation of the main opportunities, constraints and solutions found in the sector. The presentation was followed by a session of feedback, suggestions and comments of the participants for validation of findings and further development of proposals (for full account of the issues discussed, refer to annex 1).

Many of the participants expressed positive opinions about the event, the result and the high commitment from MED, the Secretary of State for Livestock, CCI-TL and district representatives.

4.2. *VCD task force*

On the initiative of the Secretary of State for Livestock, a time bound (initially 1 year) Task Force (TF) was formed to coordinate activities by actors involved in the cattle sector including Government, relevant local actors and projects (see annex 2 for TOR). This group is to meet regularly to follow up on the planning and implementation of activities of Task Force members.

The initial members of the Task Force are:

- i. Director of Livestock (MAF)
- ii. DNRED
- iii. IADE
- iv. ILO BOSS project
- v. HIVOS
- vi. GIZ
- vii. District representatives – Lautem APS association and Livestock Officer MAF, Bobonaro
Livestock Officer MAF

5. CONCLUSIONS

Overall, the VCD exercise and the stakeholder workshops were successful. Cattle sector stakeholders showed a high interest, participation and acceptance of the VCD initiative. The proposals, resulting from the research, include a mix of relatively short-term and easy to implement, and longer term and more complex activities. Most of the proposals are directed at enhancing the productivity of the private sector, particularly at farmer level. Improved productivity will lead to increased income of cattle farmers and the creation of jobs in the sector.

However, although a session on gender and VC was included in the training and members of the CGE assisted the research team in the districts, the main focus of the VC research was based on understanding opportunities and obstacles linked to productivity in the cattle sectors, and the coverage of gender aspects in the field research as well as in the analysis seemed not sufficient and needs further investigations.

In conclusion, the VCD exercise was successful in disclosing key constraints and developing proposals to respond to those and particularly to bring stakeholders together to discuss the state of the cattle sector and agree on the need for joint actions that will contribute to the development of the sector.

6. RECOMMENDATIONS FOR FOLLOW UP ACTIONS

Following recommendations are made for way forward:

- I. The analysis of the findings and proposed solutions should be further reviewed and revised based on the comments, feedback and inputs of stakeholders in the national workshop
- II. The first VCD Task Force (TF) meeting should be organized shortly. The VCD report should be shared with members prior to the meeting.
- III. The BOSS project should facilitate regular TF meetings to ensure the coordination and monitoring of implementation of sector specific activities. However, the facilitation role should gradually be transferred to a suitable stakeholder to continue TF meetings for a sufficient period of time.
- IV. A joint intervention framework along with resource pooling and timelines have to be developed in order to proceed with specific activity planning
- V. MED and MAF should lead actions to develop and implement proposed legislations and trade negotiations to re-activate the export.
- VI. Proper monitoring and documentation system for value chain development activities should be established for the project.
- VII. The strategy should consider the gender dimension of the sector and design interventions which take into account the different needs and roles of women and men by promoting equal opportunities for both sexes.

7. REFERENCES

1. Australian Centre for International Agricultural Research, Agriculture: New Directions for a New Nation - East Timor (Timor-Leste), Canberra, 2003, Proceedings of a Workshop 1–3 October 2002
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Annex 1

Meeting minutes

PRESENTATION EVENT OF CATTLE VALUE CHAIN RESEARCH RESULT

Date: 26 September, 2011 (1/2 day)

Venue: Hotel Arbiru

Number of participants: 51 - Women: 19, Men: 32

Agenda

08.30 – 09.00	Registration of participants
09.00 – 09.05	Welcome address – Hermes da Rosa Correia Barros, Director of NDRED
09.05 – 09.20	Speech by João Mendes Gonçalves, Minister of Economy and Development
09.20 – 09.25	Objectives of the workshop
09.25 – 09.40	Introduction to Value Chain Development
09.40 – 09.50	Cattle Sector in East Timor - an overview with focus on Bobonaro & Lautem districts
09.50 – 10.15	Presentations of the value chain map, market system, opportunities & constraints
10.15 – 10.30	Tea / Coffee Break
10.30 - 10.45	Suggested solutions / interventions
10.45 - 11.30	Stakeholders feedback / comments
11.30 – 11.50	Way forward
11.50 – 12.00	Closing Remarks

Summary of the event

The event was organized by ILO and the NDRED and chaired by the Minister of Economy and Development. At the table of honor, in addition to the Minister, were seated the Secretary of State for Livestock, Vice-President of Chamber of Commerce and Industry TL (CCI-TL), District Administrator of Lautem, President of CCI Bobonaro and BOSS CTA. The purpose of the event was to present the result of the cattle value chain research that was conducted in Bobonaro and Lautem districts recently, validate the result and get commitment from participants to involve in up-grading activities.

The presentation began with outlining the theoretical framework used in the research, defining value chain and the market system. It was followed by a short overview of the cattle sector in Timor Leste and then the presentation of the main opportunities, constraints and solutions.

Following the presentation the participants had the following questions and comments:

1. Cipriano Correia (MTCI-Export Department):
 - Concerned that many cattle and calves die during raining season.
 - Government should create a good policy to protect cattle farmers.
 - It is necessary to show the farmers the benefits (weight) of using modern techniques raising cattle compared with traditional methods.

- Improve meat quality for export.
- Establish rules and regulations to sell meat.

Answers:

Minister MED, Sec.State for Livestock, J.C.Sequeira

- Cattle die from several reasons: late or nil vaccination, insufficient food and other diseases.
- Livestock legislation is still to be approved by the Council of Ministers.
- Establish collection points for cattle with weighing facilities and support model farms as an example to be followed by other farmers.
- Indonesia doesn't import meat but live animals, due to their religious procedures. One way to improve meat quality is to have proper abattoir/butchering facilities/techniques and veterinary inspection.
- Meat and slaughtering legislation is still to be approved by the Council of Ministers. There will be definitions and criteria to establish abattoirs and slaughtering houses as well as selling meat (eg. 3 wheels vehicles equipped with cooling facilities, butcher shops).

Q.:

2. Papito Monteiro (IADE/MED)

- Establish legislation to sell meat with good quality and establish a steering committee to resolve this issue.
- There should be information to show the difference between traditional methods and modern techniques to raise cattle, based on weight rather than number of calves.

A.:

Minister MED, Secretary of State for Livestock, J.C.Sequeira

- Legislation on abattoirs, slaughtering, and selling meat is to be approved by the Council of Ministers. A steering committee is planned to be established, composed by: MED, Ministry of Agriculture, BOSS and other stakeholders.
- To improve farmers' production, one of the solutions was to establish model farms and support them and allocate scales to weigh cattle in collection points.

Q.:

• Maria Penha (Project Hamutuk, CCI)

- If TL imports 200 tons of meat, can this project support local products and can the Government put meat import barriers?

A.:

Minister, J.C. Sequeira

- TL cannot put barriers to import products otherwise we could face the same barriers from the export countries. We could only raise import taxes if we can produce meat with the same quality.
- One way to cut down meat import is to produce meat with hygienic standards and good quality.

Q.:

3. Zeferino Tilman (Animal Health course coordinator, UNTL)

- The best cattle have been sold for fattening; the remaining cattle are losing genetic quality.
- There should be studies on pastures, identifying the best food for cattle.
- There should be small difference of meat price/kilo at producer, compared to what the consumer pays.
- Data on number of animals have to be uniform.

A.:

Minister, J.C. Sequeira

- The fattening program from CCT is not sustainable; they are facing difficulties obtaining calves. Farmers prefer to sell adult bulls, rather than calves, for better profit. Breeding farms have been planned by MAF and could select cattle to improve genetic qualities.
- There are studies on pastures and universities can take this task. Other solutions suggested: training farmers on cattle feed, extensionists and VLWs role, model farms.
- The value chain map was shown again, to show how value chain develops and price has to be different at farmers and consumers level.
- The data shown on the presentation was based on the National Census 2011 although we agree that it may not be 100% correct as many farmers don't declare their animals and many cattle cross the border through illegal trading.

Q.:

4. Acio Pereira (VLW, Associacao de Agentes de Pecuaria)

- When can the project be implemented?
- Cattle need vaccination on time and in sufficient quantity.
- Medicines have to be allocated to districts.

A.: Secretary of State, J.C. Sequeira

- The next phase of the project is implementation. A working group will be established (MED, MAF, BOSS and other stakeholders) and an action plan will be developed.
- Funds for vaccination have been cut this year to 50% compared to previous years. There are difficulties with tendering process to acquire vaccines and medicines.

Q.:

5. Cosme (Executive Director of IADE)

- How can the results of this research be applied to the private sector?
- In regards to private sector what can the project do?

A.:

J.C. Sequeira

- There are many opportunities for the private sector, from input suppliers up to retailers. Abattoir and slaughtering places should be run by the private sector.
- The project through IADE can provide business management training to private sector.

A.:

6. Vito Mousaco (CEO, CCI TL)

- According to BOSS presentation, Bobonaro and Lautem districts have highest number of beef cattle and largest area of pastures, respectively, in TL. How many cattle can be raised in these 2 districts and what is the impact on environment?

A.:

Secretary of State and J.C. Sequeira

- It is estimated that the current pastures in TL can raise 1 cattle/hectare. With improved pastures and good pastures management can be 3-4 cattle/hectare.
- The number of cattle per hectare depends on the type of farm, intensive or semi intensive farms can raise more cattle and the impact to environment in TL is minor compared to countries with large number of cattle, like Australia. Some environmental benefits can be obtained with cattle farms, for example, using cattle manure for biogas and fertilisers.

7. Catleen Goncalves (Vice-President, CCI TL)

- It is important to continue business training.
- Business women can contribute in this sector, especially in abattoir and slaughtering places and meat processing.
- This research was very well presented and she congratulated the VC research team and opens an opportunity to the private sector.

The Minister of MED congratulated the VC research team for the work well done and the next step will be to engage all the stakeholders especially MED, MAF-Livestock Secretariat of State, MTCL and Ministry of Infrastructure. There will be a task force established, comprising MED, MAF and other institutions to continue monitoring the implementation of the action plan. The project needs the support of the local authorities in the districts. He thanked all the participants from the ministries, Irish Aid, district authorities, individuals and other institutions, including the private sector.

Many of the participants expressed positive opinions about the event, the result and the high commitment from MED, the Secretary of State for Livestock, CCI-TL and district representatives.

By Jenny Ikelberg and Jose Carlos Sequeira - Dili 29 September, 2011

ANNEX 2

TERMS OF REFERENCE TASK FORCE FOR CATTLE SECTOR IN LAUTEM AND BOBONARO DISTRICTS

1. BACKGROUND

In the national presentation of the result of the cattle value chain research organized by the Ministry of Economy and Development on 26th September 2011, it was decided to establish a Steering Committee (MED, Secretary of State for Livestock, Director of DNDER, Chairs of DEF in Bobonaro and Lautem, BOSS project representatives) and a Task Force, to coordinate and implement the solutions found in the value chain research. This TOR sets out the role of the Task Force.

2. MEMBERS OF TASK FORCE

MED-DNDER, MAF-Secretariat of State for Livestock (technical level), DEF's representative relevant to cattle sector, ACIAR representative, HIVOS, GIZ, BOSS

3. OVERALL OBJECTIVE

Enhance the economic development of Bobonaro and Lautem districts through promoting and improving the competitiveness of the cattle sector

4. SPECIFIC OBJECTIVES

- To prioritise, agree on common action plan, prepare activity proposals, initiate and support the implementation of the proposals as well as monitor and evaluate the progress of implementation.
- To enhance the networking between relevant stakeholders in the cattle sector, and the dialogue between public and private sector representatives

5. MAIN FUNCTIONS

- To coordinate, plan and monitor activities in the cattle sector to avoid duplication of programs
- Contribute to prioritise issues that need to be addressed in the cattle sector and provide guidance on which issues particular stakeholder could address
- Facilitate the sharing of and access to resources and experience among stakeholders
- Help identify real needs of cattle sector stakeholders and solve problems that arise in the implementation of cattle sector development activities
- Report back on the result of implementation of activities, bring issues that need to be addressed at the national level to that level
- Report to Steering Committee on cattle sector development activities every 3 months

6. PRACTICALITIES

- The Task Force does not replace any existing organisations, group or market functions in general
- It should be set up with a temporary timeframe, for one year – to facilitate the implementation process.
- If the group and sector members find the group useful, then it should be allowed to continue.
- The task force will meet on monthly basis

7. THE SECRETARIAT

Secretariat of the Task Force is appointed by the Director of DNDER. The main role of the Secretariat is to:

- Prepare the TF meetings:
 - invite the TF members
 - send out agenda
 - book venue
 - prepare documents, such as agenda, meeting minutes from last meeting and follow-up documents
- Takes notes during the meeting.
- Support the appointed Coordinator before and during the meetings. The Secretariat and the Coordinator should meet regularly outside the meetings to prepare and coordinate.
- Follow-up on the decisions taken in the TF and assist the stakeholders in taking action.
- Prepare the quarterly Steering Committee meeting;
 - Invite the SC members
 - Send out agenda
 - Book venue
 - Write the minutes of the meeting
 - Follow up the decisions taken in the SC meeting



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