

**Value chain development for mountainous areas:
Relation between animal breed and territory.
The case of H'mong beef in Cao Bang, Vietnam**

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Value chain development for mountainous areas: Relation between animal breed and territory. The case of H'mong beef in Cao Bang, Vietnam

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Abstract - In a market economy, poor breeding farmers usually face many difficulties due to the lack of information exchange in advanced technology and science, market and breeding experience. Cao Bang Province in the mountainous North of Viet Nam has the highest household poverty ratio, with 40% in 2007. The H'mong minority settled recently in the agro-ecological setting of the high mountains of Northern Vietnam, including Cao Bang, with small-scale land; therefore intensive livestock has become a main source for their livelihood.

Cao Bang has two main local cattle races namely, "Small yellow" and "H'mong" registered in the Vietnam animal breed Atlas. H'mong beef accounts for 30% number of total animal. H'mong beef is indigenous breed, fairly weight, mature male beef weigh 400 – 600 kg, fresh red meat, and smooth muscle, special sweet tasting.

This local H'mong beef has good meat quality but this quality value is not known by supermarket in cities due to the weak coordination in beef value chain. An action-research by CASRAD/CIRAD funded by IFAD (Superchain project) and aiming to link rural poor households to supermarkets and other quality chains has selected the H'mong beef value chain. The objective is to develop small scale H'mong beef farming in groups, and link them to high value chains becoming a localized production cluster, in a way which is suitable to breeding conditions in mountainous areas.

The approach is based on the theories of Institutional economics and collective action (Dao the Anh et al., 2007). Collective actions of small scale farmers may reduce transaction costs; increase the size of commodities in trading and the possibility of market access of the farmers. It is also based on value chain analyze (Kaplinsky et al. 2001; Gereffi et al., 2003). Characteristics of transactions, in particular in terms of quality, and the supplier's capacity will create different regulating structures of the value chains. The supply capacity in terms of quantity and quality is the key barrier of participation of the poor into the value chain.

Keywords - H'mong beef, farmer group, territory.

I. INTRODUCTION

In Vietnam, cattle production is mainly concentrated in mountainous areas due to available favorable conditions including climate, pasture, feeding sources, indigenous races and traditional production practices by local ethnic groups. Wholesale market has been developed for a long time in those areas.

Cao Bang is one of these mountainous areas near the Vietnam-China border, being the living place of different ethnic minority groups mainly the Tay, Nung, Dao, H'Mong, Lolo, San Chi, Hoa and Kinh. Among them, the H'Mong ethnic group is known for having the best cattle breeding experience.

In Cao Bang, the two main cattle breeds are the Yellow and H'mong breeds. The total herd in Cao Bang has increased by 18 060 heads within five years reaching 129.48 in 2007. In this province; three main production systems are implemented: the multiple-purpose systems of Tay and Nung farmers in low-land areas (2 heads/household); the multiple-purpose systems of H'Mong and Dao farmers in the highlands (4-6 heads/household); and the fattening systems of H'Mong people in highland areas (around 5 heads/household/cycle of three months). Among these ethnic groups, the H'Mong is among the poorest. Most of them rely on cattle production (representing 60% of total income). Therefore, improving cattle production and marketing play an important role in ensuring livelihood (Tuan et al., 2009).

H'mong cattle are raised in a cowshed with separated wood-flooring. This is helpful to ensure proper hygiene. The main feeds provided are natural grass, elephant grass, and ground corn cooked as porridge. H'mong beef is bulky and matured cattle is expected to reach a weight of 400 kg or more, with good appearance and tender meat. Almost all H'mong people do their beef farming by keeping the cattle in the cowshed and feeding them with grass. As H'mong people usually live in mountainous areas, they generally sell their cattle locally, on live cattle markets located at an average distance of 10 km.

Most of the products are sold on farm or at the local markets, where a price fluctuation is managed by Chinese

dealers¹. As the cattle are valued by “eye-measurement”, much more experience belongs to the dealers/ speculators, and therefore the breeders tend to suffer disadvantages.

Some projects are implemented in this province to foster production (e.g. genetic improvement, grass cultivation) but not attention is paid to the small-scale husbandry farmers’ market access. The farmers lack information which could be shared in groups, e.g. information on pricing, sources of breeds, experience in breeding and fattening, etc., especially in the context of increasing demand of high quality beef in potential markets. The consumers of Hanoi are willing to pay a premium price of 10% if the quality is suitable (fresh, tender, soft, red) and if the beef safety is guaranteed. More and more Vietnamese people tend to purchase beef, especially after the occurrence of bird flu and swine flu. Supermarkets like Metro, BigC and Hapromark need to be provided with 3-5 tons/month of good quality (rump steak, lean, muscle with high fat) with frequent supply by professional slaughter-houses which deliver certificates of origin and food safety control. (Moustier et al., 2009)

In that context, the Superchain project (2007-2009) was implemented in Cao Bang province aiming at creating a high quality chain of H’mong beef to meet demand of potential market through institutional enhancements in which both vertical and horizontal relationships are concerned.

II. MATERIALS AND METHOD

Several activities were deployed to establish a high quality supply chain of H’mong beef from Cao Bang to Hanoi. The first activity was the linking of farmers into groups with the participation of 20-30 households/group, in order to ensure the necessary quantity of beef to be sold to a slaughterhouse for one truckload. Besides, given the large number of households, training and application of new feeding technology were implemented to ensure a common quality of the products, meeting the requirements of the dealers. The current situation of the slaughter-houses in Hanoi and Cao Bang were studied, in order to select potential distribution channels of H’mong beef. The development of H’mong beef of Cao Bang in a competitive market shall be based on the following two key factors: **quality** and **specialty**.

The approach is based on the theories of Institutional economics and collective action (Dao the Anh et al., 2007). Collective actions of small scale farmers may reduce transaction costs, increase the volume of traded commodities and improve the possibility of market access for the farmers. It is also based on value chains analyses

¹ At certain period, the product is at very high price; but after a while, it cannot be sold

(Kaplinsky et al. 2001; Gereffi et al., 2003). Characteristics of transactions, in particular in terms of quality, and the suppliers’ capacity will create different regulating structures of the value chains. The supply capacity in terms of quantity and quality is the key barrier of participation of the poor into the value chains.

To successfully establish the link of small scale H’mong beef farms to supermarkets and high quality chains, it is critical to know the criteria set by the government and relevant authorities, i.e. breeding and transportation of cattle (in accordance with Ordinance 18/2004, with Decision 15/2006/QĐ-BNN dated 08/3/2006 by the Minister of Agriculture regarding the regulations on processing, quarantine for animal and animal products and veterinary hygiene examination, and with Circular 08/2005/TT-BTC dated 20/01/2005 by the Ministry of Finance on the collection, payment and administration of fees and charges in veterinary services).

To achieve the project’s objectives, the following steps have been conducted:

Step 1. Firstly a diagnosis of beef farming system and analysis of beef value chain in Cao Bang has been done, then select an appropriate location for pilot model development. The analysis of beef value chain is mainly based on the following three tools: Description of beef value chain diagram; relations between stakeholders; and Cost-benefit analysis in the value chain. This was based on a survey of 50 farmers 25 in two communes (Ha Thon commune of Ha Quang district and Chi Thao commune of Quang Uyen district), 10 collectors and wholesalers (in August 2007), 12 slaughterhouses, 17 restaurants and hotels, 3 supermarkets and 2 shops (in November 2007 and February 2008) in Cao Bang and Ha noi city.

Step 2. Group development: In order to implement this activity, the research team applied the theory of collective actions and farmer organization tools.

Step 3. Linking the producers to commercial factors and model evaluation: through workshops, introduction and degusting events, meetings, etc.

Step 4. Follow-up, model evaluation and replication.

III. RESULTS

A). Characteristics of Cao Bang beef chain

1. Organization of beef supply chain in Cao Bang

Farmers sell their products through 4 different channels (see Figure 1):

Channel 1. Cattle are sold to small local collectors², then to big collectors and to wholesale markets. This channel accounts for 80% of beef sold from the surveyed communes.

² Small collectors are those who buy 5-10 heads/month (with the working capital of < 10 million VND)

Channel 2. Cattle are sold directly to big local collectors³ which mainly are those who stay close to big wholesale markets and those who will do the fattening. This accounts for 5%.

Channel 3. Cattle are sold directly to big collectors outside the province⁴ at wholesale markets. This accounts for 10%. Collectors from other provinces usually have close business relations with the local ones; most people in the area know them thanks to their long-term business.

Channel 4. Cattle are sold to local slaughter-houses and local people. This accounts for 5%. This channel is small because of low beef consumption in Cao Bang. On average, 20 cattles of all kinds are slaughtered everyday, a H'mong which, 6-10 heads/day for the market of Cao Bang township, 5-7 heads/day for Ma Phuc pass, and the rest for the markets of other towns within the province.

Channel 1: Selling to the big collectors outside the province. It is the main channel accounting for 70% of total products. Small collectors and big collectors outside provinces are closely linked together.

Channel 2: Selling to the big local collectors, accounting for 20%.

Channel 3: 10% of the products being sold to slaughterhouses in the province.

The big provincial collectors sell the products to big collectors outside the province. The big collectors outside the province sell 60% of the products to slaughterhouses in Ha Noi and 40% to other provinces.

From the slaughter-houses in Hanoi, beef is sold through three different channels:

Channel 1. Beef is sold to the dealers at the slaughter-houses. The big dealers then sell beef to the retailers at wholesale markets, to restaurants, hotels and supermarkets. This channel accounts for up to 80%.

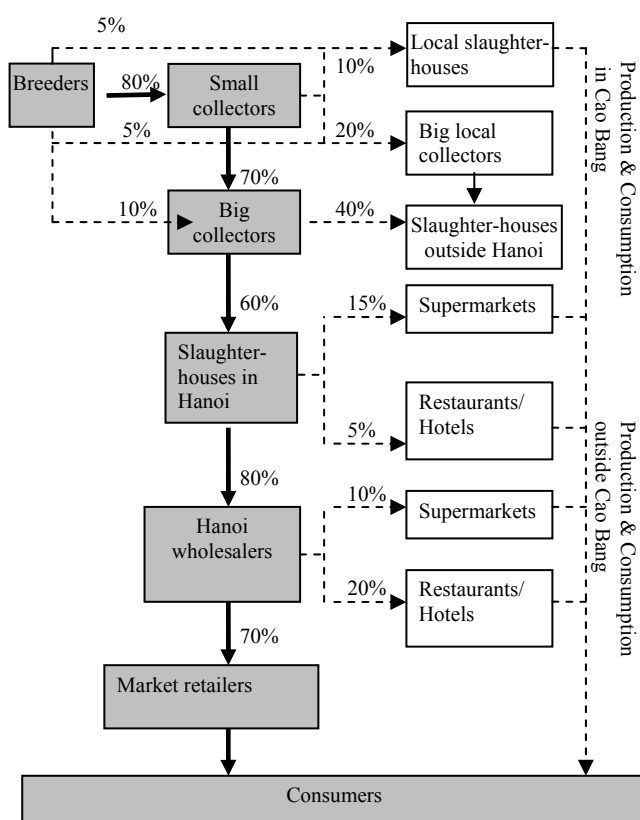
Channel 2. Beef is sold under contractual agreements with supermarkets, mainly by slaughter-houses at Mai Dong (which have legal personality and eligible procedures in supplying directly to the supermarkets). This channel accounts for only 15%.

Channel 3. Beef sold directly to restaurants and hotels accounts for 5%.

From the big dealers, 70% of the beef is sold to the retailers and vendors. These people then distribute at retail markets within Hanoi. 10% of the beef is sold to supermarkets without contracts whilst 20% is distributed to restaurants and hotels under orders.

According to the slaughter-houses at Mai Dong, Dong Anh-Hanoi, and to vendors of BigC and Metro, beef supply in Hanoi includes beef from both local and international suppliers. Local suppliers are from Cao Bang, Bac Kan, Ha Giang, Nghe An and Thanh Hoa provinces. Beef from Cao Bang accounts for 40% of the local supply. Half of what is declared as Cao Bang beef by slaughterhouses actually originates from China⁵. Beef imported from Argentina, Australia, Brazil, the US, etc. accounts for about 20% of the sales in supermarkets and is mainly in the form of big blocks of 5-10 kg/block. Imported beef is 2-4 times more expensive than local beef of similar kinds (i.e. rump steak, shoulder cut, or lean meat), e.g. fresh local beef at BigC is sold at VND 89,000/kg while frozen beef imported from Australia is sold at VND 399,000/kg (according to surveys made with restaurants in February 2008).

Figure 1 – Diagram of Cao Bang beef commodity chain



Note- the figures correspond to the percentages of quantities sold to different buyers

Small collectors sell beef in three different channels:

³ Big local collectors are those who buy 50-60 heads/month (with big capital of > 50 million VND)

⁴ Wholesalers are those who buy over 100 heads/month (with working capital of > 200 million VND); they come from Hanoi, Thai Nguyen, etc.

2. Beef collection system at wholesale markets in Cao Bang

There are 7 big wholesale markets where 50-150 heads are sold every market day (see Figure 2). In Ha Quang District in particular, there are 4 markets of both small and big sizes, i.e., Na Giang, Tong Cot, Nam Nhung and Na Ru.

⁵ This means among 100 oxen from Cao Bang to Hanoi, there is only 50 ones are raised by Cao Bang farmers, the rest is collected by small collectors from China, according to the surveys made in Aug 2007- Malica/IFAD

Cao Bang city is 50 km away from the project area with rocky mountainous path.

3. Characteristics of beef quality of Cao Bang

Currently, Cao Bang beef is categorized into two breeds, i.e. Yellow and H'mong. Yellow cattlen represent 70% of the total herds, H'mong cattle 20% and the other 10% is cross-bred. Their characteristics are presented below.

Yellow:

Small body (180 - 250kg/head); low percentage of lean meat < 35%, mainly raised by Tay, Dao and Nung ethnic groups.

Beef quality: tough, bright red, with a little meat loss due to too much exercise by climbing mountains. Main feed is natural hay, forest leaves, and a small amount of starch feed.

H'mong:

It has a big body, good appearance, heavily muscled and weight up to 450 – 550 kg. Percent of lean meat is over 40%.

Quality: bright red, fragrant, tender, high rate of scattered fat, smooth meat, little water loss when cooking. It is mainly raised in custody as is a long time indigenous breed. Main feed is elephant grass, natural grass, forest leaves along with ground corn, rice bran, a little salt and clean water.

Figure 2 – Map of cattle wholesale markets in Cao Bang



H'mong beef is sold at 2.5% higher price per kilo after slaughtering, compared to yellow-cattle origin beef (1000 - 2000 dong per kilo of beef after slaughtering)

Cao Bang beef and Chinese beef are different in several aspects. The biggest difference is the ratio of lean meat, the tenderness and the color of the meat after slaughtering:

Chinese cattle:

Cattle from China are classified into 2 groups:

- The first is called “border cattle”. These are raised by Chinese ethnic groups. Their quality is quite similar to Cao Bang Yellow cattle. Chinese people at communes near the border are often of Tay and Nung ethnic groups. Buying and selling is convenient because of their same language. When selling cattle it is required to have a certificate of origin issued by the Commune People Committee. Small

local collectors who buy cattle from China usually raise them for 1-2 weeks before selling them at the markets so that a certificate of origin from the commune people’s committee is granted.

- The second group is fed in large farms or by professional cattle raisers. Their appearance is good, they are chubby, with smooth fur and leather, and a weight of over 400 kg/head. Only well-experienced cattle purchasers can recognize their origin. An Cattle of this type often brings a 6.25% -12.5% lower price than an cattle of other origins.

According to the collectors and slaughter men in the Ma Phuc mountain pass area, the color of Chinese beef turns dark brown in 3-5 hours after slaughtering and loses tenderness due to water loss. Some slaughter men and collectors say that when being cooked, the smell is not as attractive as Vietnamese beef because the animals are fattened with hormones and industrial food.

At present, there has been no in-depth study about beef safety in markets, especially in terms of the hormone and anti-biotic residue in beef.

B). Results from group establishment

After nearly two years of project implementation, the research team has provided advice to establish 4 groups with the participation of 103 households. On average, each household comprises 5-7 persons. Over 60% of the households of the groups are poor. In order to establish the groups, initially, officers who are the veterinarians of the commune were trained with group establishment techniques then implementation was made in the field. After the development of the first group, with experience in organizing and consulting, the research team continued with another 3 groups. The groups are provided with specific advice in respective activities for respective households. Each household developed its own production and commercial plan. Each group then made a consolidation for the group plans. The plans of respective groups revealed the timing and location of cattle selling. Based on such information, the leaders of the group (3 people in the group in charge of marketing, including leader and vice leader) interacted with the collectors.

The establishment process and characteristics of the 4 groups are shown in Table 1:

Table 1. Information on the H'mong beef farming groups

Timing and location	H'mong beef farming group	Group characteristics
10/07– 6/2008 Ha Thon Commune	Lung Hoai	25 households; size 3.2 heads/household; 80% H'mong + 20% Nung people 65% poor households
	Rang Khoen	25 households, Size : 3.7 heads/household ; 100% H'mong 60% poor households

07 – 12/2008 Ma Ba Commune	Lung Ran	26 households, 100% H'mong Size: 2.9 heads/household; 63% poor households
	Thin Tang	27 households, 100% Nung Size: 2.6 heads/household; 64% poor households

Source: Consolidation of data- Superchain (Malica/IFAD) - 12/2008

Each group implemented its plans. A review for lessons learnt and further plan development was made after 6 to 12 months (see Table 2).

Photos of group's activities:



Launching a new interest group



A planning meeting

Table 2. Results of operation of a high quality beef farming group in Cao Bang Province – 2008

No.	Activities	Households involved	Unit	Planned (quantity)	Actual (quantity)	Remarks
1	Vaccination	25	Head	80	80	Achieved 100%
2	Cowshed building	2	Coop	2	1	Achieved 50%
3	VA-06 grass cultivation	5	m2	1200	3000	Achieved 250%
4	Cattle buying	25	Head	50	42	Achieved 84%
5	Cattle selling	25	Head	50	52	Over achieved
6	Fund contribution	25	VND/year	250.000	250.000	Achieved 100%
7	Group meeting	25	Time/year	12	6	Achieved 50%
8	Feed fermentation	2	Trunk	2	2	Achieved 100%

Source: Consolidation of data- Superchain/Malica/IFAD - 12/2008

On average, each household sold 2 cattles within 12 months, which is much quicker than before.

The group farmers are able to make plans and implement them with the consultation and monitoring of the relevant experts and the local veterinarian of the commune and district. Poor households participating in grass cultivation and feed fermentation have good awareness and responsibility in experience sharing, i.e. transferring of grass seeds to other households. Besides, the group households are very active in vaccination.



H3. VA-06 grass



H4. Grass on the mountain valley

C). Development of production protocol for H'mong beef in Cao Bang

1. Preparation of production protocol

The application of a common production protocol by the households helps to ensure the good quality of the products. H'mong people have a long tradition in cattle fattening. They always found the techniques suitable to local natural conditions, in line with their economic and labor capacity. In the case of cattle fattening in Cao Bang, together with the farmers of the interest groups, the research team has standardized respective steps in their cattle fattening process, making them most understandable and applicable for mountainous areas and with high economic effects. The production protocol comprises 10 major items. It is brief and easy to understand. Each item is attached with specific notes and explanations according to actions conducted, including:

1. H'mong cattle
2. How to choose cattle for fattening
3. Cattle selection technique for fattening
4. Preparation before fattening
5. Fattening period
6. Food for fattening
7. Rearing during fattening period (including health issues)
8. Cowshed conditions
9. Quality assessment before selling
10. Estimation of economic gain from cattle fattening techniques

2. Training on production protocol

After 6 months of implementation, 100% of the group households were trained and practiced the introduced production protocol. The assessment of economic effects requires further monitoring but preliminary results will be given at this end of this report.

With documents developed by the research team of Malica and edited by relevant experts (of CIRAD and CASRAD), the research team has conducted several training workshops and disseminated material to over 100 households of the 4 interest groups. 10 courses were organized with different themes, i.e.:

- Training on planning methodology: 4 two-day training courses with the participation of 25-27 attendees per course at the Cultural house of the village (2 in Oct 2007, 2 in Mar 2008)

- Training on cattle cold prevention: 2 one-day training courses with the participation of 25 attendees per course at the village and certain group households (Jan 2008)

- Training on VA-06 grass cultivation and sweet jumbo cultivation: 2 two-day training courses with the participation of 25 attendees per course at the village, at the field and gardens of the participating households (Apr 2008)

- Training on cattle fattening production protocol according to H'mong approach: 2 two-day training courses with the participation of 25 attendees (Nov 2008).

D). Linking the interest groups with different commercial actors

1. Workshops and promotion events

The main objective is to establish a supply chain of H'mong beef from the interest groups to the supermarkets and restaurants in Hanoi. Therefore, the activity in linking the producers to different commercial actors such as slaughterhouses, supermarkets and restaurants is very critical. For the initial relation, the research team organized four workshops with the participation of different actors in the beef value chain. However, there was limited participation of the slaughterhouses in Hanoi and the linking with them is difficult. The main reason is relating to their reluctance in getting involved in a formal supply chain which they have never experienced and where documents are required. The difficulty of linking with the slaughterhouses in Hanoi required a change of strategy in the selection of slaughterhouses as partners. In March 2009, the research team changed to work with a slaughterhouse in Cao Bang (Mr. Ngan). This contact has resulted in positive results. The slaughterhouse in Cao Bang (Mr. Ngan), together with the research team, successfully conducted the workshop for product introduction and tasting of H'mong Cao Bang beef at BigC, Hanoi on 25/04/2009. During this workshop, two cattles from the project area were slaughtered by Mr. Ngan, brought in cattles with ice by lorries to Hanoi. Big C butchers dealt with the cutting and packaging of the meat. Then the meat was cooked by staff of Big C restaurants and proposed to consumers (who could also buy it fresh, at the price of 170,000 VND/kilo of fillet, 150,000 VND/kilo of rump meat).

Source: Consolidation of information from Superchain/Malica/IFAD - 05/2009

The tasting event has opened a new perspective for H'mong beef value chain. It was highly appreciated for its practical aspects. The key actor is the distributor (the Director of BigC) who had high appreciation on the quality of the beef and proposed that H'mong beef should be distributed during the weekend at Big C if the quantities are not sufficient for daily delivery. The company SCS is also interested in the distribution of H'mong beef. It would like to be the only distributor for H'mong beef. Cao Bang slaughterhouse is willing to cooperate with the project whilst DBRP project (loan project funded by IFAD) unanimously agreed to develop a high quality supply chain for Cao Bang H'mong beef. The consumers in Hanoi also had great appreciation on the quality of H'mong beef. Out of 120 consumers who filled the evaluation form, 90% appraised the higher tenderness and the good taste of H'mong beef in comparison with other local ones. The trial selling price of 13% higher than the price set at BigC (for local beef) was accepted by the consumers⁶.

At the present, the 4 interest groups can supply 100kg/week. This volume can only meet 20% of Big C purchase of domestic beef.



H5. Tasting event on 25/4/09



H6. Stakeholder workshop

Table 3. General information about the workshops

Workshop	Timing and Location	Content	Results
1 st time	07/09/07 Cao Bang	An inception workshop on linking farmers to high quality chains	40 participants, including the dealers from Hanoi. Project objectives were introduced.
2 nd time	31/03/08 Cao Bang	Workshop for actors of beef value chain	35 participants, including the Women consumer association of Hanoi; no participation from slaughterhouses and supermarkets
3 rd time	22/05/08 Hanoi	Workshop for actors of beef value chain	Participation of 30 persons, including Big C, Pho vuong restaurant, Khan quang do Hotel, Women consumer association of Hanoi, etc.
4 th time	25/04/09 BigC – Hanoi	Workshop for product introduction and tasting	Over 100 participants, including 50 farmers, the consumers of Hanoi, with introduction on VTV1, VTV6, The Economic Times, the Agriculture News

2. Promotion material

A certificate of origin has been designed for tracing the place of origin of beef, it is filled by the veterinary services of the communes. Besides, a label of H'mong beef has been designed to be displayed in the final meat product.

A video and a poster have been produced to explain the specific characteristics of H'mong beef.



Label for H'mong beef

It is difficult to calculate the economic effects of the activities for over 100 households. A real case can be

⁶ At BigC, local rump beef is sold at VND130,000/kg

illustrated by Mr. Luong Van Sinh's household who belongs to a beef farming group of Rang Khoen, Ha Thon commune, Ha Quang, and further information on some households which are not involved in the farming groups (outside of the high quality chain) are shown to demonstrate the effects from activities conducted (see Table 4).

Table 4. Comparing household's economic benefits when joining the high quality chains

Criteria	Before joining the group	After joining the group (10/2007 - 5/2009)	Non members (1/2008 - 5/2009)
Cutting grass in winter (working day)	90	30	90
Time for fattening (month/animal)	6	3	3-6
Number of cattle (animal/year)	2	4	2-4
Total quantity (visual measurement)(kg)	200	400	200-400
Selling price (VND/1kilo - visual measurement)	52,000	03 cattles sold at 90.000 dong per kilo - 01 cattle sold at 97.000 dong per kilo	90,000 (-7,2%)
Total income according to beef quantity (mill)	10.4	36.7	18 - 36
Price of buying cattle for	9.8	34.8	17.4 - 34.8
Surplus profit (mill/household)	0.6	1.9	0.6-1.2
Income from cattle fattening raising (VND/day)	3.333	10.555	3.333 - 6.666

Note: Mr. Sinh had money only enough to buy 1 cattle valuing less than 15 mill for fattening then re-selling

Explanation of calculating income per day:

- Before joining the group:

(1) With the scale of 2-4 cattles per household, each household needs 4-6 hours per day (cutting grass, preparing porridge, cleaning); as working day is calculated as 8 hours per day, so each household spends 15-22.5 days for cattle raising per month.

Before joining the group Sinh's household raised 2 animals per year, selling and buying new cattle after every 6 months.

--> Total working days: 15 days * 6 months x 2 animals = 180 days

(2) From table 4 we can see that the surplus profit after one year raising cattle of Sinh's household is 0.6 mill dong per year (=600.000VND per year)

From (1) & (2), we had the income of one day before joining in group:

Income/working day = 600.000 dong/180 working day = 3.333 dong/working day

- After joining the group (access to high quality chain)

(1) Time for cattle raising reduced to 3 months per animal – thanks to training on production protocol ; ---> total

working days for cattle raising per year: 15 days/month x 12 months = 180 days

(2) During 2008-2009, Sinh's household bought and sold 4 cattles, total quantity of beef is 400 kilos, 3 out of 4 sold at the market price of 90 dong per kilo; 1 sold at tasting event at 97,000 dong per kilo

(3) Total income of Sinh's household from 4/2008-4/2009 : 3 animal x 100 kg/animal x 90.000đ/kg + 1 animal x 100 kg x 97.000 đ/kg = 36.700.000 VND; Total costs of buying cattle for fattening: 35.500.000 VND.

Additional income from 4 cattles per year: 1,9 mill

--> From (1), (2) and (3), income per working day of Sinh's household: 1.900.000 dong/180 working day = 10.555 dong - **Non member:** calculated as in the part 1

The most important impact of the activities is the higher frequency of cattle sold, i.e. from 2 heads/year to 4 heads/year. This is the reason of income increase. In addition, when getting involved into the high quality chain, each kilo of beef of live weight receives a higher price, i.e. VND 7,000 (An cattle of 100 kg shall get 0.7 million VND higher price than that in a common market.)

We estimated the number of groups required to answer the demand of the potential customers identified so far (supermarkets, hotels, distribution companies), i.e., 40 groups of 25 households, that is ten times more than the present situation (see Table 5). It is impossible to have mass development of groups but the development should be based on the market demands and the good governance of production groups. Together with the development of distribution network in Hanoi, it is necessary to develop groups and disseminate farming production protocol plus quality control system to the households of the groups. Hygiene protocols for slaughtering and transportation of products from Cao Bang to Hanoi still need to be developed.

Table 5. H'mong beef supply capacity

Supply capacity		Beef volume (ton/month)	Profits higher than selling to free market at the same time (mill)
Nr. Of household	Nr. of group		
100	4	0,4	2,8 (4 households/month)
1000	40	4	28 (40 households/month)

Source: Consolidation of results from Superchain/Malica - 4/2009

F). Marketing activity continued...

Since the project Superchain ended, two companies and a small-scale slaughterhouse have invested in the H'mong beef value chain in Cao Bang. A local construction company will invest in constructing a slaughter park to ensure standards, with a frozen storage, a waste treatment park and frozen trucks for transporting. At the moment, the company has cleared the ground and is hiring to design the slaughter. They estimate to complete the construction in December of 2010. The organic food Distribution company

Ecomark is currently connecting to the small slaughterhouse in Cao Bang to distribute H'mong beef in Hanoi market, but the quantity of beef is still very limited (50 kg / time), once in two weeks. Ecomark Company has a door-to-door delivery network whereby customers can order via phone and e-mail.

IV. Conclusions and recommendations

In terms of Production

Two groups have been established with effective operation and another two have been recently developed (103 households). These groups are involved in joint production protocols for cattle of stable quality.

Success has been obtained with pilot cultivation of VA-06 grass in dry mountainous area with the possibility of multiplication to other mountainous areas in Cao Bang

In terms of links to the market

Great attention and support has been shown by BigC and SCS Food retail companies. But the linkage of remote cattle producers with slaughterhouses in Hanoi has not been successful. The cooperation with local processing infrastructure, such as the new slaughterhouse currently in construction Cao Bang, seems to be a key success factor to develop linkages with high-value markets.

Capacity building and promotion materials

A standardized production protocol in beef farming and fattening of the H'mong people has been produced. A label for H'mong beef has been designed, as well as a video and a poster on H'mong beef.

Yet, the development of the H'mong beef chain still faces difficulties:

No slaughterhouse with legal status (stamp, tax code), financial capacity, and clear hygiene protocol is yet found to connect with high quality chains. Therefore contracting with supermarkets and retail companies is not yet possible.

The negotiation on a quality premium is not going smoothly. The retailers -Big C and SCS Company- are not satisfied with the offered price (135.000 VND per kilo for type A beef delivered to Big C); SCS will only accept the price ranging from 125.000 – 130.000 VND per kilo for type A beef).

A set of recommendations are listed below:

Production:

- Developing the groups as the association of beef cattle raising (20 – 40 groups), for 1000 households to benefit and supply the identified outlets

Marketing:

- Supporting the identified slaughterhouse in Cao Bang to become the slaughtering cooperative (with legal status, equipments).

Building “a formal collective brand” for H'mong beef based on farmers groups and ensuring a specific quality

based on indigenous raising practices and a geographical identity, as partly analyzed and strengthened within the framework of Superchain project.

- Organizing transactions with contracts with customers in Hanoi

- Supporting the slaughterhouses and distribution companies of H'mong beef to research and enlarge the consumption market in big cities

Capacity-building

- Cooperating with Cao Bang livestock extension services to disseminate the cattle fattening protocol of H'mong people

- Training veterinary and extension staff on methods of setting up and working with groups

- Supporting slaughtering houses with standardized equipments to ensure a high quality end-product and market access, through the support of local governments to gain access to other sources of funding.

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