

Labelling the tea sectors in Ha Giang and Lai Chau

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Master Thesis

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December 2009

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Preface

This thesis finalizes my Master of Science in Business Administration at the University of Twente, the Netherlands. The research was carried out between February and December 2009 at SNV Netherlands Development Organisation in northern Vietnam and in the Netherlands.

The main subject of the research is food labelling in the Vietnamese tea sector with an emphasis on geographical labelling and organic labels.

I would like to take this opportunity to thank Professor Erik Joost de Bruijn and Stephan Maathuis from the University of Twente for their guidance throughout this research project and their continuous support. A special word of gratitude also goes out to Paul Weijers from SNV Vietnam for making this endeavour possible, his personal support and professional guidance in Vietnam. The research could not have taken place without the support of Ninh Van Nghi from RUDEC, whom assisted me during my fieldwork in rural Vietnam. More general, I would like to thank the staff of SNV Vietnam and RUDEC for their support. Finally, I would like to thank my parents, brothers and friends for their support.

Joris Kok,

The Netherlands, December 2009

Summary

The Vietnamese tea sector is export driven. Vietnamese tea is generally perceived as a low quality tea and attains a low price on the international market. The unrefined overall production process of exported tea and over usage of pesticides are at the root of the quality problem. The tea sectors in the Vietnamese provinces of Ha Giang and Lai Chau suffer from the same problems.

SNV (a Dutch development organization) and their partners concluded that adhering to a specific production process and the introduction of a label that is related to this process could be an effective tool to increase the quality of tea from Ha Giang and Lai Chau. The choice was made to investigate the introduction of either a Geographical Indication (GI) for Snow Tea (this is a famous tea from the border region between Vietnam and China) or an organic label for organically grown tea. This raises the question of how SNV and its partners should support this introduction.

A multiple case study was designed that uses secondary data to construct a theoretical framework. The framework in turn provides the necessary input to formulate propositions about the topics of the research. These propositions stood at the basis of formulating the required conditions that contribute to the introduction of a GI or an organic label in the Vietnamese tea sector. Primary data was collected (through interviews and observations) to provide an overview of the actual conditions in Ha Giang and Lai Chau in relation to the introduction of a GI or an organic label. Pattern matching is the technique used to analyse the data. From the theoretical framework a pattern is identified that stipulates the perfect situation for the introduction of either a GI or organic label. This pattern is compared to the pattern that is based on the empirical reality. This comparison identifies lacking required conditions and provides input for the support programme or 'scope' that SNV and its partners should have.

A total of 40 required conditions from various sources are identified that all contribute to the introduction of a GI or an organic label. By comparing the 40 actual conditions against the 40 required conditions it can be concluded that for both Ha Giang and Lai Chau the successful introduction of a GI for Snow Tea is not feasible. For both Ha Giang and Lai Chau it can on the other hand be concluded that the successful introduction of an organic label for Snow Tea is feasible. However, there are a large number of lacking conditions that need to be improved or controlled.

Hung Cuong Tea Company and Than Uyen Tea Company should play a leading role in respectively Ha Giang and in Lai Chau. Farmer groups should be selected that are located as close to each other as possible. Knowledge in these producer groups and in the supporting parties on organic farming methods, technology, rules, certification methods and the organic market are lacking and should be improved.

In addition, • 1) an organic production site needs to be identified and documented, taking in account contamination factors like other crops and irrigation channels, • 2) farmer and worker training schedules need to be developed, • 3) a sales channel needs to be selected and developed, and finally • 4) control and production tracking systems need to be set up within the producer groups to monitor the isolated organic production chains.

After conversion to 100% organic production methods, a three year conversion period will start. During this period the producer group has to produce in accordance with organic rules while it may not yet market its products as organic. After the three year conversion period and after all involved actors are certified, organic certification is attained and products can be labelled and marketed as such.

Converting to organic cultivation methods will prove to be a challenging task for the producer group. However, by working together with the supporting parties and the local authorities, this conversion will lead to a significant income increase for all actors in the organic value chain.

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List of Abbreviations

ADB	Asian Development Bank
ADDA	Agricultural Development Denmark Asia
CTC	Crush Tear Curl
DARD	Department of Agricultural and Rural Development
FAO	Food and Agriculture Organization of the United Nations
GI	Geographical Indication
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
ha	hectare
IBS	IFOAM Basic Standards
ICS	Internal Control Systems
IFOAM	International Federation of Organic Agriculture Movements
IPM	Integrated Pest Management
IPSARD	Institute of Policy and Strategy for Agriculture & Rural Development
ISO	International Organization for Standardization
MARD	Ministry of Agriculture and Rural Development
NGO	Non Governmental Organization
RUDEC	Rural Development Center
SHCC	Small Holders Cash Crop
SNV	SNV Netherlands Development Organisation
TRIPS	Trade Related Aspects of Intellectual Property Rights
VINATEA	Vietnam National Tea corporation
VITAS	Vietnam Tea Association
VND	Vietnamese Dong
WTO	World Trade Organization

1. Research background and design

Chapter 1 provides the background of the research and discusses the research design. The different actors and cause for the research are explained. Hereafter, the research objective and main problem are described. From the main problem research questions are derived. The research design then describes how the answers to these questions are obtained. Finally, the research structure is discussed.

1.1 Introduction of actors

SNV Netherlands Development Organisation (SNV) is a Dutch development organization headquartered in The Hague. SNV aims to combine idealism and proven expertise to help develop local organizations that have the potential to significantly contribute to the development of their country. SNV is a capacity builder that focuses on two areas of development work: • 1) generating production, income and employment opportunities, and • 2) improving access to basic services. The ultimate goal of SNV is to reduce poverty worldwide. SNV positions itself differently in the value chain on every project on either a regional, country or a local level, based on where their efforts will be most effective (www.snvworld.org).

With a total of over 1500 professionals SNV is active in 32 countries around the world divided over five regions: Asia, Balkans, East & Southern Africa, Latin America and West & Central Africa. The organizational headquarters in The Hague focuses on strategy, human resources and finance. Figure 1.1 portrays the organizational structure of SNV.

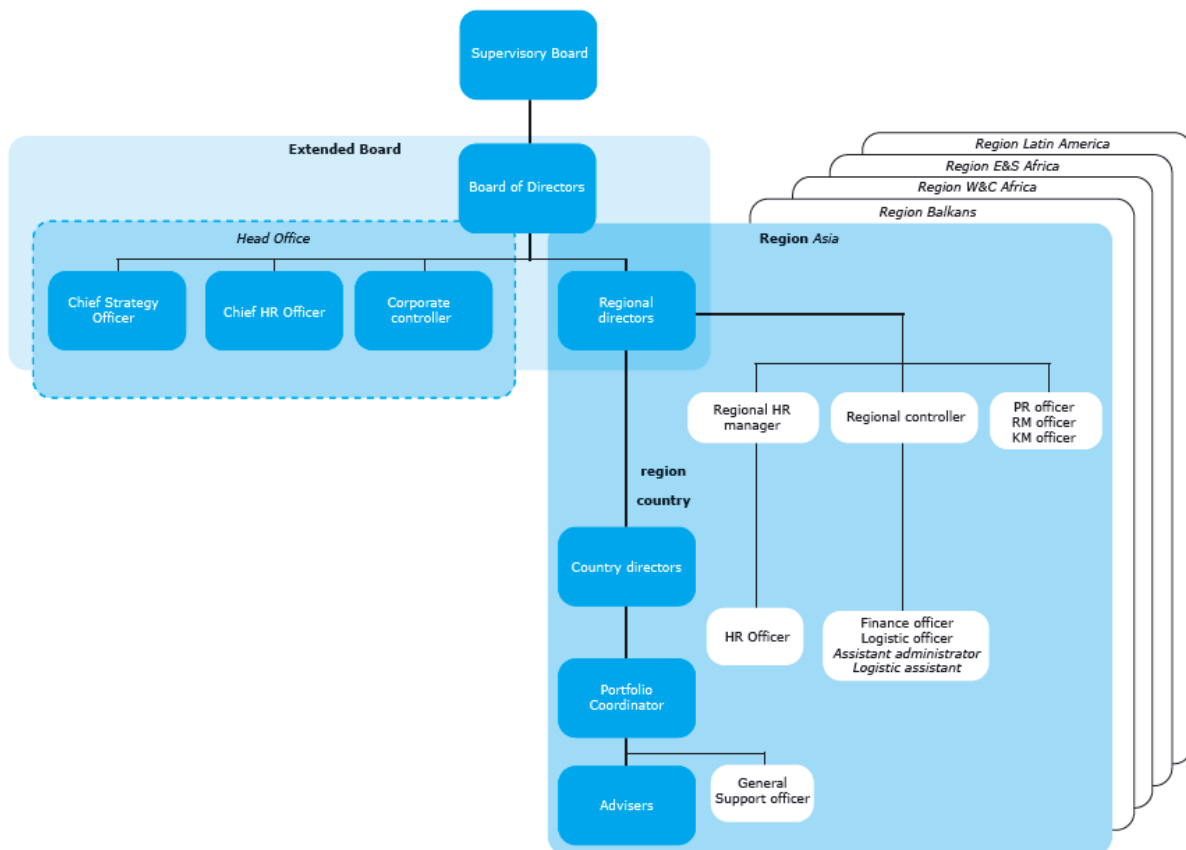


Figure 1.1: Organization chart SNV (www.snvworld.org)

SNV is mainly funded by the Netherlands Ministry of Foreign Affairs. A smaller contribution is generated through other organizations, such as: The European Union, The United Nations Development Programme, World Bank and various other development organizations. In 2007, the total income amounted to almost € 100 million.

SNV Asia is active in Bangladesh, Bhutan, Cambodia, Laos, Nepal and Vietnam. SNV Asia offers services in the following sectors: • Renewable energy/Biogas, • Water, Sanitation and Hygiene, • Smallholder Cash Crops, • Forest Products, and • Pro-poor Sustainable Tourism. As a part of SNV Asia, SNV Vietnam also supports these five sectors. The Smallholder Cash Crop (SHCC) sector aims their activities at small scale farmers that grow a crop with an economical motive, not to use it themselves. Within this SHCC sector, SNV supports four different value-chains, among which the tea value-chain. This research is part of tea value chain development programme.

SNV Vietnam is based in Hanoi and focuses its attention mostly on the northern part of the country. In case of the tea sector the focus is specifically on the provinces of Ha Giang and Lai Chau. The focus of this research is also on these two provinces. Figure 1.2 provides an overview of the locations of these two provinces within Vietnam.

The Ministry of Agriculture and Rural Development (MARD), is the highest governmental body that is responsible for rural development in Vietnam. The Institute of Policy and Strategy for Agriculture & Rural Development (IPSARD) is an advisory agency for the MARD with the objective to carry out research and provide strategic advice to MARD in agriculture and rural development-related areas such as commodity sector development and policies for disadvantaged rural areas. The Rural Development Center (RUDEC) is a department of IPSARD and has expressed their interest to cooperate with SNV in research and development in the tea sector.



Figure 1.2: Locations of Ha Giang and Lai Chau in Vietnam

SNV and the local authorities of Ha Giang and Lai Chau intend to cooperate in the further development of the tea sector. This means that both actors want to improve the tea sector in such a way that more income is gathered in the rural province and subsequently living conditions will improve in a structural manner. Simultaneously, the private sector firms Hung Cuong Tea Company (HCTC) in Ha Giang and Than Uyen Tea Company (TUTC) in Lai Chau, showed keen interest to cooperate with SNV in the development of the tea sector at large. All these stakeholders aim at developing the tea sectors in Ha Giang and Lai Chau.

1.2 Research motive and objective

The Vietnamese tea sector is mostly export driven. Around 70% of the total tea produce is exported. However, Vietnamese tea generally receives a very low price on the international market (Van der Wal, 2008). The Vietnamese Teas Association (VITAS) acknowledges that this low price signals a quality problem. Vietnamese tea is perceived as being of low quality. Two important reasons for this perceived low quality are: • 1) the overall production process of exported tea is often not very refined, and • 2) Vietnamese tea generally suffers from over usage of pesticides (Ho Chi Minh City Department of Industry and Trade, 2007).

SNV has conducted a tea value-chain assessment in Ha Giang province (SNV, 2008) and an analysis of the Lai Chau green tea sector (Degail, 2007), and concludes that the quality problems of the tea sector in Ha Giang and Lai Chau are similar to the situation in Vietnam as a whole (SNV, 2008). One of the recommendations of the value-chain assessment is that adhering to a specific production process and the introduction of a label that is related to this process could be an effective tool to increase the perceived quality. Since tea is a food product, this process is generally referred to as 'food labelling'. The rationale behind food labelling in order to increase quality is covered in chapter 3.

There are various types of food labels (Van Dam and Van Trijp, 2006). From these labels, SNV concluded that introducing either a **Geographical Indication (GI)** for Snow Tea (this is a famous tea from the border region between Vietnam and China) or an **organic label** for organically grown tea are suitable tools. At the onset of this research it was still undecided if either only one of these two label types will be introduced, or both.

The exact definitions of these two food label types are given in sub-chapters 3.1.2 and 3.1.3. For now it suffices to understand that a GI is a sub-type of a geographical label. Geographical labels communicate the sourcing of a product or attributes of the product within a defined geographical location (Anders and Caswell, 2008: p. 2). Two famous examples are Champagne wine from the Champagne area in France and Parma ham from the Parma region in Italy. These products must be produced in accordance with specific methods and must be produced within a certain region. Organic labels may only be applied to products that are grown organically. This very roughly means that these products are grown free from chemical or synthetic substances.

After SNV's choice for these two food label types, the next step was to find out how these labels are to be introduced to achieve optimal result. This brings us to the objective of this research.

The objective of this research is to investigate the possibilities, within the capacity of SNV and its partners, for the introduction of either a Geographical Indication for Snow Tea or an organic label for organic tea in order to increase the perceived quality of tea from Ha Giang and Lai Chau.

1.3 Problem formulation

With the research objective defined, the main problem can be defined. The main problem of this research is:

How should SNV and its partners support the introduction of either a Geographical Indication for Snow Tea or an organic label for organic tea for the tea sectors in Ha Giang and Lai Chau?

1.4 Research questions

The research questions stated in this sub-chapter are a systematic breakdown of the main problem statement from subchapter 1.3. Together, the answers to these questions will provide the answer to the main problem. The research questions are:

- 1. What required conditions contribute to the introduction of a Geographical Indication or an organic label in the Vietnamese tea sector?*
- 2. To which extent do the tea sectors in Ha Giang and Lai Chau fulfil the required conditions?*
- 3. What lacking required conditions in Ha Giang and Lai Chau should be improved in order to introduce a Geographical Indication or an organic label?*

1.5 Nature of the research

In order to find an answer to the research questions, an approach is needed on how the research was performed. This approach is also referred to as the 'research design'. The nature of the research has to be identified before a fitting design can be selected.

The first categorization that can be made is that this is an **applied research**. This research is of direct and immediate relevance to managers, addresses issues that they see as important, and is presented in ways that they understand and can act on (Saunders, et al., 2007: p. 7). This implies that the findings of this research are of practical relevance and value to SNV and its partners, and its findings have to be presented with a focus on practical usefulness rather than academic discussion.

The purpose of the research is twofold. It can best be described as a mix of **exploratory** and **explanatory** research. The exploratory part of the research is the prelude to the explanatory part. Research questions 1 and 2 are aimed at gaining insights into the problem at hand and thus exploratory. "Exploratory research is particularly useful if you wish to clarify your understanding of a problem, such as if you are unsure of the precise nature of the problem" (Saunders, et al., 2007: p. 133). Research question 3 seeks to intervene in the causal relationships of the tea value chains in Ha Giang and Lai Chau, and is of an explanatory nature (Saunders, 2007).

This research is **deductive** in its approach. Problems are analysed and a hypothesis is designed as to what is needed to develop the tea sectors in Ha Giang and Lai Chau in

relation to the proposed interventions. At this point this research diverts from the common path that deductive research follows (Saunders, 2007). Due to time constraints the hypothesis cannot be tested and the outcomes cannot be examined as an integral part of this research. As a result, until the hypothesis has been tested, there is an inherent uncertainty involved with the results of this research.

Having determined the nature of this research; research methods, sources of information and research tools are chosen. The configuration of these different aspects is referred to as the 'research methodology'.

1.6 Research methodology

The research method of choice is a **case study**. The definition given by Saunders, et al. (2007: p. 139) seamlessly applies to this research. They state that a case study is "a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence". The choice for a case study approach is further motivated by the nature of the research questions. The exploratory research questions are not a decisive factor in this, however the explanatory research question is. Research question 3 requires a study of operational links within the research context that is best served by a case study (Yin, 2003). The context of the research is largely unfamiliar terrain in relation to the research topics. In addition, the extent of control over behavioural events and the degree of focus on contemporary events reinforces the choice for a case study approach (Yin, 2003). It is undesirable to have control over behavioural events that are part of the research context since the research aims to intervene in a value chain without creating a situation that is unbalanced without the influence of SNV and its partners. All these factors considered, a case study is the research method of choice that prevails over other methods (e.g. experiments and surveys).

This case study focuses on two cases, namely the tea sectors in Ha Giang and Lai Chau. This is referred to as a '**multiple case study**' (Saunders, et al., 2007). In general, evidence from multiple case studies is more compelling than from single case studies and as a bottom line rule, a researcher should always choose for a multiple cases study if this is possible (Yin, 2003). In this particular case the choice for a multiple – rather than a single case study stems from the intentions of the research principal. SNV wants to put the outcomes of this research into practice in the two provinces. Furthermore the two cases are expected to produce similar results, thus increasing the strength of the evidence (Yin, 2003).

Case studies have to deal with a certain amount of prejudice concerning their scientific validity. However, when properly executed, a case study can be generalized to theoretical propositions. Yin (2003) provides a comprehensive framework for any researcher conducting a case study and is also used to guide this research.

The two sections hereafter will describe in more detail the data collection techniques used and the methods of data triangulation and analysis.

1.6.1 Data collection techniques

This section describes what data will be collected, how data will be collected and how this data will contribute to the goal of the research. Data collection (1) directly serves the exploratory part of this research (research questions 1 and 2) that seeks to gain insight into the problem at hand, and (2) is at the basis of the explanatory part of this research (research question 3) that seeks to design an intervention in the causal relationships of the tea value chains in Ha Giang and Lai Chau.

From the background of the research and the research questions relevant topics are derived. These topics can be divided into three categories: • 1) the international and Vietnamese tea processing sectors, • 2) the underlying principles and theories of food labelling, and • 3) best practices with food labelling.

Secondary data is gathered on these three categories in the form of a collection of documentary data (e.g. reports, public records, books and scientific articles). Secondary data is data that has been collected for some other purpose than this research (Saunders, 2007: p.607). The researcher performed an exhaustive search in on-line scientific databases and university libraries. Careful study of the material during the search confirms that the three topics are comprehensive for this research. The comprehensiveness of the collected data was considered to be maximized when search results recurred. In addition to the data collected from this literature search, the researcher also studied material provided by SNV; this material consisted mostly of studies of the Vietnamese tea sector (the previously mentioned 1st category). This total collection of relevant secondary data is hereafter referred to as the “theoretical framework”.

The theoretical framework provides the necessary input to form propositions about the topics of the research. These propositions stood at the basis of formulating the required conditions that contribute to the introduction of a GI or an organic label in the Vietnamese tea sector.

In addition, the theoretical framework provides insight into the global- and Vietnamese tea processing sectors. Although these insights are insufficient to construct a complete overview of the relevant conditions of the tea sectors in Ha Giang and Lai Chau, they did provide the researcher with valuable insights as to what conditions required particular scrutinizing. Primary data was required to complement these insights.

The final functions of the theoretical framework are to gain valuable insight into the background, objective and problem of this research and to identify sources of primary data collection that were interviewed or consulted during the field research. The theoretical framework is presented in chapters 2 and 3.

Primary data is collected specifically for this research and not for any other purpose (Saunders, et al., 2007). Primary data collection for this research is aimed at providing an overview of the actual conditions in Ha Giang and Lai Chau in relation to the

introduction of a GI or an organic label in the Vietnamese tea sector. Furthermore, it will test any conclusions drawn from the information on the international and Vietnamese tea sectors that are derived from the secondary data. Primary data was gathered using the following methods:

- **Semi structured interviews** – This method provides the bulk of primary data. Vietnamese tea sector actors provide valuable information and opinions on the research at hand. Semi structured interviews are the interview method of choice, these aim at following the needed line of inquiry while keeping the interview open and going, a suitable method for case studies (Yin, 2003).

In the both the cases of Ha Giang and Lai Chau it was impossible and undesirable to interview the entire tea industry populations. Therefore a sample of interviewees was selected. However, due to time constraints, availability issues of potential interviewees and the challenging working environment in the field; the sample selection method was in some cases at the mercy of the situation in the field. In practice this for example meant that farming locations were too remote to visit or local authorities would hinder the researcher to visit and interview farmers and tea processors.

The theoretical framework provided the researcher with the knowledge needed to select a comprehensive sample. For both cases a population sample was selected that (if existent) contained: • 1) the private sector lead firm, • 2) farmers employed by the private sector lead firm, • 3) farmers under contract, • 4) unlinked farmers, • 5) tea collectors, • 6) tea traders, • 7) (tea) farmer cooperatives, • 8) small household tea processors, and • 9) relevant local authorities. Priority was placed on interviews with the private sector lead firm and the three types of tea farmers, since they are at the basis of the value chain and the project focal point of SNV's development activities. In addition to providing the knowledge to select different actors, the theoretical framework signalled where the tea sectors are concentrated in Ha Giang and Lai Chau, thus limiting the size of the area of research. Overviews of these limited areas are provided in appendices 1 and 2.

Prior to the field research a questionnaire was constructed by the researcher. As mentioned, the interview method of choice is semi-structured. Thus this questionnaire served as a guideline for an open conversation rather than a strict method of operations. The questionnaire is presented in appendix 3.

- **Direct observations** - Observations are amongst others: farmer group meetings, farming and production practices and project meetings. Data on these phenomena are quickest and most reliably gathered through direct observations.
- **Participant observations** - The researcher is considered to be an external consultant that is closely linked to the research principal. The research

principal in turn is indirectly involved in the value chain being studied. Thus the researcher observed participants in the value chain. Participant observation is a tool for indirect value chain actor evaluation.

- **Documentation study** - As with all case studies, documentation is highly relevant for this research (Yin, 2003). Relevant documentation types are: communiqués, agendas, administrative documents and media announcements. Documentation is mostly used for data triangulation with other sources of evidence.

A case study database is maintained by the researcher in order to organize and document the collected data. This is also a necessity if a chain of evidence is to be maintained throughout the report (Yin, 2003: p. 105).

1.6.2 Data triangulation and case study analysis

As will be discussed in sub-chapter 1.7, in order to increase construct validity, case studies ideally need multiple sources of evidence for one phenomenon. The outcomes of these sources have to be tested against each other. This process is called **data triangulation**. Yin (2003: p. 98) describes triangulation as “converging lines of inquiry”. An important note is that multiple sources of evidence should lead to only one conclusion, and not a separate conclusion for every source of evidence. For this research this means that a single phenomenon like “Strong vertical and horizontal linkages in the value chain” (as will be discussed in chapter 3) needs to be evaluated using multiple sources of evidence. These can be for example: semi-structured interviews and participant observations.

There are no fixed methods or tools for analysing case study results. Yin (2003) provides some guidance on this subject. Three analysis strategies can be identified of which one is ‘**relying on theoretical propositions**’. This is the analysis method of choice for this research. This choice originates from propositions derived from the theoretical framework which are at the basis of the research. Since they are at the basis of the research, the propositions will help to focus attention on certain data and ignore other data (Yin, 2003: p. 112). The process of deriving propositions from the theoretical framework should be considered as a recurring process rather than linear. To illustrate this further, the propositions in turn also shaped the research questions and guided the literature review. Eventually, this recurring process also leads to new propositions (Yin, 2003). These theoretical propositions have shaped the data collection plan and signalled relevant analytic strategies. Basically, theoretical propositions help focus on what data is of interest and what data can be ignored, thus guiding the analysis of this case study.

Now that the data analysis strategy is chosen, a more tangible analysis technique has to be chosen to analyse the data. Yin (2003) provides five techniques of which one is ‘**pattern matching**’. This is the analysis technique of choice for this research because it is a suitable technique for strengthening the internal validity for a (partly)

explanatory case study (Yin, 2003), as in the case of this research. Pattern matching works as follows:

From the theoretical framework, a pattern can be identified. This pattern stipulates the perfect situation for the introduction of either an organic tea label or a GI for Snow Tea. This pattern is defined as the 'predicted pattern' since it is based on the propositions predicted by (or deduced from) the theory. If the predicted pattern, or patterns in this case, are met, an ideal situation exists for the introduction of a GI or an organic label. The predicted pattern relates to research question 1.

The predicted patterns are then compared to the patterns that are based on the empirical reality as it is investigated by the researcher. These empirical patterns are also constructed on basis of indicators derived from the propositions of the theoretical framework, making a comparison between the two pattern types possible. The empirical patterns relate to research question 2. A comparison between the two pattern types will identify lacking required conditions in the empirical pattern. This will answer research question 3. The lacking required conditions identify a gap between the current situation and the desired situation. Hereafter, this is referred to as a "gap analysis".

The position of SNV and its partners is an integral part of the above described analysis. The researcher can thus, in consultation with SNV and its partners, identify the support programme or 'scope' that they should have in improving these lacking required conditions. This will ultimately lead to answering the main problem.

1.7 Research quality

The quality of this research is measurable through four different indicators that are identified by Yin (2003). These are: construct validity, internal validity, external validity and reliability.

- **Construct validity** - This concerns the validity of operational measures for the concepts that are studied. In order to maximize construct validity, this research: • 1) uses multiple sources of evidence, • 2) maintains a clear chain of evidence throughout all its stages, and • 3) the outcomes of the research were reviewed and validated during a workshop by experts and direct and indirect value chain actors.
- **Internal validity** - This refers to the validity of (proposed) causal relationships, and thus only applies to the explanatory part of this research. It has to be made sure that not some other influence than the proposed interventions has an effect on the measured results. Internal validity is determined by the analysis of data that is elaborated upon in section 1.6.2. Internal validity can only be judged after the hypotheses have been tested in reality. The hypotheses designed during this research cannot be tested as an integral part of this research.

- **External validity** - This refers to the generalization of the case study beyond the case itself. For this particular research it refers to whether the recommended interventions in the value chain are also applicable to other locations than Ha Giang and Lai Chau.

Apart from guiding the collection of primary data, the theoretical framework (which is based upon secondary data) will serve as a mirror to which the generalization of the results will be done. **Analytic generalization** is the generalization method of choice (Yin, 2003). Case studies are comparable to laboratory experiments. Based on this comparison, the results of this research are compared to the theory it was based upon. If the outcomes of the research support the theory, replication and external validity may be claimed (Yin, 2003: p. 33). In addition, the two cases are considered to be **typical cases** because; the north of Vietnam has more provinces like Ha Giang and Lai Chau based on the following characteristics: • 1) the province is relatively poor, • 2) is mostly rural, and • 3) has a large tea sector. More than 15 other northern provinces¹ can be identified that have these same characteristics.

- **Reliability** - This refers to the outcomes of the research if it were repeated by a different researcher according to the same procedures. The outcomes should be identical in order to claim reliability. In order to increase the reliability of this research, procedures will be documented in a case study protocol. The study protocol contains the following four sections:
 - Case study project overview - This section should contain background information, substantive issues and relevant readings about the issues. Furthermore, this section contains the hypotheses and broader theoretical relevance of the research. These topics are elaborated upon in chapter 1 of this report.
 - Field procedures - This pertains to the precautions that have to be taken in order to facilitate data gathering. Access to key interviewees will be maximized by linking the student researcher with a Vietnamese counterpart from the RUDEC. Local authorities and some key stakeholders in the Ha Giang tea value chain have already spoken out their support to this research. Also, the network of SNV staff in Vietnam will be available to the researcher.
 - Case study questions - The case study questions have been covered in sub-chapter 1.4 of this report.
 - Case study report guide - The report guide is covered in sub-chapter 1.8 of this report.

¹ Lai Chau, Lao Cai, Cao Bang, Lang Son, Tuyen Quang, Yen Bai, Vinh Phuc, Phu To, Bac Can, Bac Giang, Thai Nguyen, Tam Tuyen Wuang, Thanh Hoa, Nghe An and Ha Tinh (Tran Cong Thang, et al., 2004)

The four indicators of research quality discussed in this section give an outline of how the quality of this research is guaranteed.

1.8 Research structure

This sub-chapter provides an overview of the consecutive steps that will be taken in order to find an answer to the main research problem. Figure 1.3, provides a graphical representation of the research steps that are linked to the corresponding research questions and chapters in this thesis.

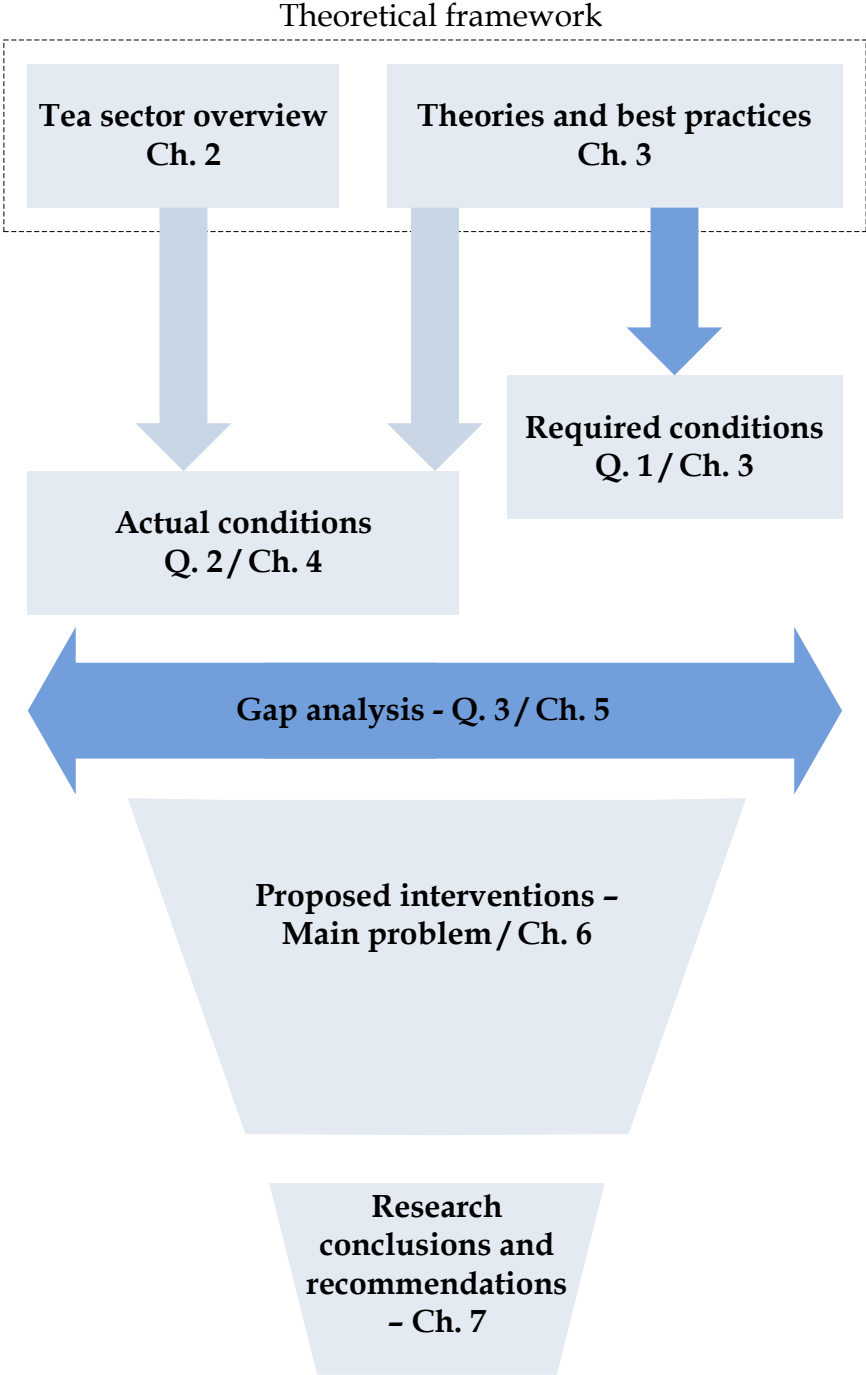


Figure 1.3: Research structure

The light blue arrows in figure 1.3 that connect “Tea sector overview” and “Theories and best practices” with “Actual conditions” indicate a partial relation. The information gathered in the “Vietnamese tea sector overview” only provides initial insights into the actual conditions in Ha Giang and Lai Chau. These insights have to be complemented with primary data.

Amongst the “Theories and best practices” are also experiences from Vietnam, these experiences will both provide input for the “Required conditions” as well as provide initial insights into the actual conditions in Vietnam, and thus also for Ha Giang and Lai Chau. These insights also have to be complemented with primary data.

2. Tea sector overview

This chapter provides detailed insight into the global and Vietnamese tea sector at large and the situation in Ha Giang and Lai Chau. By providing this, valuable insight into the background, objective and problem of this research is gained. Furthermore from this overview insight into the empirical pattern, as described in sub-chapter 1.5, is gained, if these insights match with the conclusions drawn from the field research, this will strengthen the outcomes of this research. Finally, this chapter identifies sources of primary data collection that were interviewed or consulted during the field research.

2.1 The global tea industry and the international position of Vietnam

Over the last 30 years the global production of tea has doubled, and it continues to grow up to the present day. Global demand for tea is also growing, but in comparison it is lagging slightly behind supply, causing a situation of oversupply (Van der Wal, 2008). A situation of oversupply always leads to a reduction of prices. If a certain production chain (like the Vietnamese tea chain) does not distinguish itself from other production chains, it is destined to suffer from a decreasing price.

Vietnam is a noteworthy tea producer. In 2006 the country ranked 7th on the list of largest tea producing countries and 5th on the largest tea exporting countries. Table 2.1 gives an impression of Vietnam's position amongst the world leading tea producing and exporting countries.

Country	Production in metric Tons	Share	Export in metric tons	Share
China	1,028,064	29%	286,594	18%
India	955,907	27%	200,866	13%
Sri Lanka	310,822	9%	314,915	20%
Kenya	310,607	9%	313,721	20%
Turkey	142,000	4%	5,500	0%
Indonesia	140,049	4%	95,339	6%
Vietnam	132,000	4%	106,000	7%
Japan	99,500	3%	1,681	0%
Argentina	80,000	2%	70,723	4%
Bangladesh	53,265	2%	4,794	0%
Malawi	45,010	1%	41,962	3%
Uganda	36,726	1%	32,699	2%
Tanzania	31,348	1%	24,132	2%
Iran	20,000	1%	6,000	0%
Taiwan	19,345	1%	1,962	0%
Other	12,157	4%	64,920	4%
Total	3,532,800		1,571,808	

Table 2.1: Main tea producing countries in the world (Van der Wal, 2008)

Depending on the stage of fermentation, there are three basic varieties of processed tea: green, oolong and black. These three varieties can be subdivided into orthodox (hand rolled) types and Crush Tear Curl (mechanically processed). Crush Tear Curl (CTC) teas are in general of lower quality and are more suitable for tea bags (Rasmussen and Rhinehart, 1999).

Vietnam exported 70% of its total tea production in 2007. Of this export 60% was black tea (mainly to Pakistan, India and Russia), 20% green tea (mainly to Taiwan and China) and another 20% were oolong and specialty teas. Of all green tea produced, almost 95% is consumed domestically. The situation for black tea is the other way around, 99% of the production is destined for export. Vietnam exports mostly unlabelled orthodox black tea in bulk. Branding and packaging are uncommon for exported tea (Van der Wal, 2008).

The total export value for Vietnamese tea in 2006 was US\$ 115 million (Van der Wal, 2008). A simple calculation indicates that on the international market Vietnamese tea receives a very low price (US\$ 1085 / metric ton). Table 2.2 provides an overview of all noteworthy tea exporting countries.

Country	Export price in US\$ / metric ton
Japan	16365
Taiwan	7390
Sri Lanka	2638
Kenya	2091
India	1905
China	1877
Indonesia	1411
Tanzania	1366
Malawi	1171
Turkey	1145
Uganda	1101
Vietnam	1085
Argentina	692

Table 2.2: Tea export value (Van der Wal, 2008)

From 1992 to 2004, the price paid for exported Vietnamese tea was only 68% of the average global price. The VITAS states that the low price on the international market indicates a quality problem for Vietnamese tea. Better quality tea has to be produced and diversification has to take place in order to increase the price of Vietnamese tea on the international market (Ho Chi Minh City Department of Industry & Trade, 2007). When considering the current situation of global oversupply in the tea market, this applies even more. Over usage of pesticides has been mentioned as a reason for the perceived low quality (Ho Chi Minh City Department of Industry & Trade, 2007).

Vietnamese fresh tea yields are in general quite impressive, especially in the upland regions. However, dried tea yields are low when compared to other tea producing countries. Vietnam achieves an average of 0.8 to 1.2 ton/ha, while other producing countries achieve higher yields, such as Kenya (2.2 ton) India (1.8 ton), Japan (1.7 ton), Sri Lanka (1.5 ton) and Taiwan (1.1 ton) (Tran, et al., 2004). This indicates a sub-optimal processing side of the whole production process, while the actual physical growing conditions (e.g. soil and plant species) are quite good.

2.2 Overview of the Vietnamese tea sector

The Vietnamese tea value chain is documented thoroughly by Tran, et al. (2004) in an Asian Development Bank (ADB) study. The provinces of Thai Nguyen, Phu Tho and the city of Hanoi were chosen as the sites of the fieldwork. Phu Tho is more suitable for black tea production and Thai Nguyen for green tea. Together with Hanoi, where the most prominent tea exporting companies are based, these provinces provide a diverse overview of the tea sector at large in Vietnam.

Over 70% of all tea in Vietnam is grown by smallholders. The remaining 30% is grown by state enterprises and private companies (Tran, et al., 2004). Smallholders are the dominant tea growing party and their share of the total production continues to grow (CIA world factbook, 2005).

Although it only involves three activities (production, processing and sales), the national value chain is complex. The complexity stems from the many actor types that are active in all stages, and the many linkages between the actors. The graphical depiction of the value chain is cumbersome and does not provide a clear overview of the tea sector. Hereafter, the different actors in the tea sector are presented.

Producers (or farmers) can be subdivided roughly into:

1. **Unlinked farmers** - These farmers are the most numerous of all farmers. They produce and sell (fresh) tea on the open market to traders and processors. Basically all their relations are at arm's-length;
2. **Contract farmers** - These farmers own their land but are contractually bound to provide (a portion) of their produce to processors. They receive different forms of assistance from the processors;
3. **Worker farmers** - These farmers work on state farms or for other companies. They are allocated a tract of land for up to 50 years and grow whatever their parent company dictates. In comparison to other farmers they receive a high amount of assistance and other benefits;
4. **Cooperative farmers** - A small number of farmers are members of tea farming cooperatives.

The ADB study identified three farmer cooperatives that are amongst the better organised farmer groups. These cooperatives can potentially produce higher quality teas. There are multiple reasons for this. The first is that around 85% of cooperative

members have received Integrated Pest Management (IPM) training. IPM training educates the farmer on responsible usage of chemical and synthetic substances in relation to tea farming. Secondly, in general member farm lands are adjacent to each other; this decreases contamination from neighbouring 'conventional' farmers and provides irrigation services more easily. Finally, cooperatives have more experience in bringing products to market. Overall, cooperative farmers have the potential to get a foothold in niche markets and earn higher premiums (Tran, et al., 2004).

An important notion concerning the distribution of margins in the value chain is that farmers obtain small margins in comparison to processors and traders. Farmers by themselves therefore have low access to funds (Tran, et al., 2004).

Processors can be subdivided roughly into:

1. **Non-registered household processors** – These are very common in the tea value chain, especially in the upland regions. They process their own tea and that of other farmers. On average they produce 15 tons of dried tea per year. They mainly produce green tea. Their numbers are increasing;
2. **Registered household processors** – With an average output of 240 tons per year these processors are larger than their non-registered counterparts. However, their numbers are also far lower;
3. **Private processors** – These are again one size bigger when compared to registered household processors. Their output averages on 400 tons per year. They produce both green and black tea and buy raw material from leaf traders and household processors;
4. **State-owned companies** – These have an average annual production of 1580 tons per year. They mostly sell to State-owned VINATEA but are increasingly following a different path to export;
5. **Joint-venture companies** – These joint ventures between (foreign) private companies and Vietnamese state owned enterprises have the largest output with an average of 4000 tons per year. They entered the market in the late 1990's and are the most technologically advanced actors in the value chain.

Due to the liberalization of the tea market, opportunities have arisen for tea traders. These actors have found their place in the value chain in order to provide an alternative to the state owned companies (Tran, et al., 2004). Traders can be subdivided into:

1. **Tea-leaf assemblers / traders** – Using bicycles and motor bikes, these traders buy from cooperative and unlinked farmers and sell fresh leaves to processors or other traders. They are often very much needed since tea leaves have to be processed after four to six hours after plucking. Traders are generally larger in scale than assemblers and tend to use cars and trucks;

2. **Dried tea traders** – Household processors are often linked to retailers and exporters via these traders. These traders also sell to traders in other provinces and thus provide inter-regional trade. They tend to have more capital than fresh tea traders and have a larger trade network. The studied group of dry tea traders had an average annual volume between 20 and 50 tons.

One of the end-station actors in the national value chain is the domestic retailer. Four main types of domestic retailers can be identified:

1. **Small tea houses** – The traditional tea retailer, often located in crowded areas, seems to be suffering from competition from the other retailers since their numbers are decreasing;
2. **Tea bars** – A more recent trend in tea drinking, these charge much higher prices than small tea houses;
3. **Traditional tea retailers** – These get supplies from the more famous tea areas. Often they have regular customers. Expectations are that these retailers will receive strong competition from supermarkets;
4. **Supermarkets** – A growing route in the value chain is the one via the supermarket. Pricing is transparent, products are safe and shopping is convenient. Most teas are foreign, but domestic brands are also part of the product range.

The final actor in the value chain is the **exporter**. With the majority of all tea produced in Vietnam destined for export, the exporter is a major actor in the chain. VINATEA is a state-owned company that held a monopolist position. But its market share has continued to decline to below 50% in 2004. VINATEA loses its market share to private companies. All export trade is channelled through VINATEA or private companies (Tran, et al., 2004).

Apart from direct chain actors, there is another actor worth mentioning; the **Vietnam Tea Association (VITAS)**. Despite being the national association, the VITAS' role is relatively small. The organization lacks member support. Improvement is needed if VITAS wants to become more successful in executing its tasks (Tran, et al., 2004).

Currently, Vietnam mainly produces low quality tea that only requires an arms-length relationship between farmers, processors and retailers/exporters. However, when higher quality tea is demanded (like organic tea and Snow Tea produced in accordance with GI rules), more integrated relationships have to be developed. This is because farmers do not have the knowledge or input to produce higher quality tea. One method of achieving this is through farmer cooperation, another method is through private sector companies investing in supplier relationships (Tran, et al., 2004).

2.3 Overview of the tea sector in Ha Giang

According to the provincial Department of Agricultural and Rural Development (DARD) the total tea production area in 2008 was 15.949 ha (Nguyen, 2007). Of this 15.949 ha, reportedly 13,000 ha is “totally natural tea”, meaning that the tea is grown without the use of any fertilizers or pesticides (SNV, 2008). This is a clear signal of possibilities for organic tea production.

The tea area in Ha Giang is concentrated in the following districts: Vi Xuyen, Bac Quang, Quang Binh, Xin Man and Hoang Su Phi. A clear distinction within this area is to be made between the highland and lowland region. Appendix 1 provides a graphical overview of the situation.

The highland region covers the districts of Xin Man and Hoang Su Phi and significant areas bordering Xin Man and Hoang Su Phi of the other three districts. Tea cultivation in the highland region, with altitudes between 400 to over 2000 meters above sea level, differs from the lowland region on: • 1) tea trees reach the size of fully fledged trees rather than the size of bushes due to deliberate neglect by the tea farmers, • 2) tea farmers do not apply any additional substances to the tea trees, they are grown completely natural, • 3) tea is harvested during only four periods per year between February and October.

The lowland region covers the remaining area of the districts of Vi Xuyen, Bac Quang and Quang Binh. Tea cultivation in the lowland region is intensive and fits the stereotype tea cultivation methods of Vietnam; infrequent harvesting and intensive usage of chemical fertilisers, pesticides and herbicides.

The following actors were identified by SNV (2008):

- **40,000 Tea farmers** – Both in the highland and lowland regions, these are all small scale farmers. The average tea growing area of one farmer is around 0.5 ha. On average these farmers produce around 10 ton of fresh tea per year. Tea farmers are highly dependent on price setting by stronger chain actors and have a very limited access to funds.
- **400 Small collectors/processors** – These actors collect tea in remote regions for resale and processing. Sometimes they own a small area of farm land (0.5 – 1 ha). There is no cooperation amongst these actors and they sell their products to medium and large traders in China and Ha Giang. They have a good relationship with the farmers and access to remote regions.
- **Small to medium processors** – There are 20 medium scale processors and an estimated 100 small household processors. They collect their unprocessed tea from farmers and collectors. 10% of their produce is sold to the local market. There is a lack of cooperation amongst these actors, and especially small household processors tend to have low quality tea. In general it can be stated that the small household processors sell their tea locally and the medium sized

processors export their tea in bulk. The main export partners of the medium sized processors are Chinese tea traders.

- **Traders** – These actors buy dried tea and sometimes reprocess tea. Some medium sized traders are farmers as well. They have access to substantial loans and international relationships in China and Taiwan, but also in Hanoi. There is no cooperation amongst these traders.
- **Big processors and private companies** – There are five companies that: • 1) use updated technology, • 2) are better organized, and • 3) have access to overseas markets. They buy raw material from farmers, traders and processors. These big actors also suffer from an unstable market demand. They are in turn dependent on their suppliers that operate in remote areas, thus high transportation costs are evident. Internally, they are in a good position to coordinate a high quality tea chain, but their surroundings provide a challenge in this respect. The large sized processors export their tea in bulk.

Hung Cuong Tea Company (HCTC) is, with an annual output of 3000 tons of processed tea per year and six factory locations, the largest tea processor in Ha Giang. HCTC processes fresh tea into: black tea, green tea, yellow tea and Pho Nhi tea. Yellow and Pho Nhi tea are processed teas that originate from China and are not considered in relation to the GI aspect of this research. HCTC sells 90% of their processed tea in bulk and 10% consumer ready, meaning that the tea is not repacked and relabelled before it is sold to the consumer. They export to over 20 countries. Furthermore, they have an ISO 9001 – 2000 certified management system (SNV, 2008), this indicates a good amount of organizational capabilities. As mentioned in chapter 1, HCTC is a partner of SNV.

HCTC is mainly supplied from the districts of Vi Xuyen, Bac Quang and Hoang Su Phi. HCTC is supplied by approximately 1,000 farmers working within the tea material production area of the company. The company has access to over 1000 ha of farming land where the presumed famous Snow Tea grows (SNV, 2008).

Some constraints for Hung Cuong are: • 1) total dependency on local producers, • 2) scattered tea production areas, • 3) supply shortages, and 4) the close proximity of the low quality Chinese market (SNV, 2008).

Furthermore, poor infrastructure combined with long distances to market are major constraints for the tea sector in Ha Giang. Especially communal roads are in poor conditions. This creates a potential reduction in tea quality that is needed when producing either organic tea or a GI protected tea (SNV, 2008).

2.4 Overview of the tea sector in Lai Chau

The tea sector in Lai Chau province is concentrated in the Tam Duong and Tan Uyen districts and in Lai Chau Town, forming a linked area of tea production. The total tea area is currently 3,300 ha. In comparison with Ha Giang, the tea area in Lai Chau is uniform. There is no significant difference in cultivation methods. Tea cultivation in

Lai Chau is intensive and fits the stereotype tea cultivation methods of Vietnam; infrequent harvesting and intensive usage of chemical fertilisers, pesticides and herbicides (Degail, 2007). Appendix 2 provides a graphical overview of the situation.

The vast majority of the tea area in Tan Uyen is managed by Than Uyen Tea Company (TUTC) who employs farmers or has binding contracts with independent farmers to supply the company with fresh leaves (SNV, 2007: p. 5).

In Tam Duong and Lai Chau Town, the land belongs to the farmers who produce the tea. The majority of these farmers supply fresh tea leaves to one of three major processors in the district: Shan Tea Company (STC), Thanh Gia Tea Cooperative (TGTC) and Tam Duong Tea Company (TDTC). These three processors have difficulties maintaining a steady supply of input material. Frequently, farmers sell to the processor who will offer the best price at a given time. Processors try to build relations with producers by giving them fertilisers on credit for example, but on numerous occasions the verbal contract is not honoured (Degail, 2007: p. 7)

The following actors were identified by Degail (2007) and SNV (2007, 2008):

- **5,000 Tea farmers** - These are all small scale farmers but can be clearly subdivided into three categories: • 1) unlinked or independent farmers, • 2) farmers that own their land but are under contract to deliver to a tea processor, and • 3) farmers that are employed by a processor and cultivate land that belongs to the processor. Same as in Ha Giang, the average tea growing area of one farmer is around 0.5 ha. On average these farmers produce around 10 ton of fresh tea per year.
- **An unknown number of collectors** - Especially in the border region between Tan Uyen and Tam Duong districts there are some small household processors active. They partly depend upon collectors to supply them with fresh tea. The three major processors in Tam Duong depend, like the small household processors, on an unknown number of fresh tea collectors.
- **Processors** - TUTC, STC, TGTC, TDTC and a limited number of small household processors in the border region between Tan Uyen and Tam Duong. The small household processors mostly produce green tea and sell this to local traders or directly to consumers in Lai Chau and neighbouring provinces.

TUTC is virtually the only tea processor in Tan Uyen district and owns around 450 ha of tea farming area. TUTC is a semi-state owned enterprise that is increasingly being privatized. TUTC has one factory location in Tan Uyen and receives input materials from their own land and from contracted farmers from Tan Uyen. TUTC processes and sells green tea to companies based in other provinces which blend the green tea and export it abroad (SNV, 2007: p.5). As mentioned in chapter 1, TUTC is a partner of SNV in Lai Chau.

2.5 Conclusions

The objectives of this chapter were to: • 1) provide insight into the background, context, objective and problem of this research, • 2) provide insight into the empirical pattern, and • 3) identify sources of primary data collection.

No explicit conclusions can be stated for the first objective since these are an integral part of the chapter. Sections 2.5.1 and 2.5.2 will state the conclusion for the second and third objective.

2.5.1 Insight into the actual conditions

These insights refer to the empirical pattern and help provide an answer to research question 2. These insights are tested against the empirical pattern and will either strengthen the empirical pattern or signal possible flaws in it.

Relevancy of the insights is determined by comparing the overview of the tea sector (as presented in this chapter) against the required conditions as presented in chapter 6. As mentioned earlier, the process of deriving propositions from the theoretical framework should be considered as a recurring process rather than linear. A distinction is made between insights for the actual conditions in Ha Giang and in Lai Chau.

Ha Giang

- 13,000 Hectares of tea farming area is cultivated without the use of any fertilizers or pesticides (SNV, 2008).
- Reported pesticides and synthetic fertilizer over usage by farmers in the lowland area (SNV, 2008; Tran, et al., 2004; Ho Chi Minh City Department of Industry and Trade, 2007).
- HCTC has good amount of organizational capabilities HCTC, as indicated by ISO certification (SNV, 2008).
- HCTC has access to over 20 export markets (SNV, 2008).
- HCTC has some basic marketing skills, as indicated by the modest “customer ready” sales (SNV, 2008).
- There are a large number of unlinked farmers and unregistered tea processors. These value chain actors have limited expertise, capabilities and means to produce tea of a high quality standard (CIA world factbook, 2005; SNV, 2008).
- Farming areas are scattered throughout the region (SNV, 2008).
- Poor infrastructure for tea transportation (SNV, 2008).
- Farmers lack funds for investments (Tran, et al., 2004).

Lai Chau

- Reported pesticides and synthetic fertilizer over usage by farmers (Degail, 2007; SNV, 2008).
- TUTC has relatively strong links with their supplier farmers through employment contracts or supply contracts (SNV, 2007).
- Apart from the relationship between TUTC and their supplier farmers, the relationships between all the other value chain actors in the province are weak (CIA world factbook, 2005; Degail, 2007).
- Farmers lack funds for investments (Tran, et al., 2004).

2.5.2 Sources of primary data collections

This chapter helps identify sources of primary data collection. A distinction is made between Ha Giang and in Lai Chau.

Ha Giang

SNV staff
Hung Cuong Tea Company staff
Unlinked tea farmers
Tea collectors
HCTC suppliers
Small household processors
Tea processing cooperatives
Tea collectors
Tea traders
Relevant local authorities

Lai Chau

SNV staff
Than Uyen Tea Company staff
Shan Tea Company staff
Tam Duong Tea Company staff
Thanh Gia Tea Cooperative staff
TUTC worker farmers
TUTC contract farmers
Unlinked tea farmer s
Tea collectors
Small household processors
Tea processing cooperatives
Tea collectors
Tea traders
Relevant local authorities

3. Theories and best practices

As discussed in section 1.6.1, there are two relevant topics that provide the necessary input to formulate the required conditions that contribute to the introduction of a GI or an organic label in the Vietnamese tea sector. These are: • 1) the underlying principles and theories of food labelling, and • 2) best practices with food labelling.

This chapter elaborates on these two topics and concludes by identifying and formulating the required conditions. The conclusions from this chapter provide the answer to the first research question.

3.1 Theories on food labelling

This sub-chapter provides an overview of relevant theories in the field of food product branding and labelling in relation to this research. The basics of food branding and labelling are discussed, after which the focus is on geographical and organic labelling.

3.1.1 Food products branding and labelling

Using the definition provided by Kotler (1991) a **brand** is “a name, term, sign, symbol, design or a combination of them intended to identify the goods or services of one seller, or a group of sellers and to differentiate them from those of competitors” (Kotler, 1991: p. 442).

Van Dam and Van Trijp define a **label** as “brands in a descriptive sense as a reference to the product source or maker” (Van Dam and Van Trijp, 2006: p. 168). A label referring to certain quality characteristics of a product is referred to as a **quality label**. According to this definition, Geographical Indications (GI’s) and organic labels are both quality labels. These two label types are of specific interest to this research. SNV identified these labels in their assessments of the Ha Giang and Lai Chau tea value chains (SNV, 2008; Degail, 2007) as effective interventions in the value chains.

Although brands and labels are closely related to each other, they serve a different purpose. The main difference between a brand and a quality label is: “whereas labels are often purely informative to describe certain objective qualities of the product...and apply to a range of products that conform to a certain criterion or certification scheme, brands are often designed to communicate more specific, competitive and more implicit or less tangible information to the consumer.” (Van Dam and Van Trijp, 2006: p. 168). A second important difference between brands, or trademarks, and labels is related to ownership rights and control. The applicant for a trademark is always one single legal entity. This same legal entity has ownership and total control over the trademark. The trademark can be sold or licensed freely (Addor and Grazioli, 2002). Whereas a shared characteristic by all types of labels is that a group or cooperative of producers has ownership and control over the label. Moreover, it cannot be traded freely. The focus of this research is on labelling.

The basic economic reasoning behind (quality) labelling is found using the theory of information and reputation. This theory prescribes the importance of “(1) preventing the market distortions that arise when there is asymmetry of information between producers and consumers and (2) averting the consequences of such asymmetry of information on the level of output quality” (Bramley and Kirsten, 2007: p. 74). **Information asymmetry** occurs in a situation where consumers do not have the same information concerning the origins of a product that the producer does have (Bramley and Kirsten, 2007). In this situation producers will have to find a method to close this information gap. In an opposite situation, if consumers have perfect knowledge on the origins of a product, there is no need for the producer to make any efforts of communicating the origins of the product to consumers. Thus, in order for the introduction of a food label to be effective, there must be an existing situation of information asymmetry.

Consumers have adhered to three mechanisms to protect themselves from asymmetrical market information: • 1) repeat purchases, • 2) brand loyalty and • 3) willingness to pay a premium for reputation. A label is able to satisfy all three mechanisms (Nelson, 1970). On the producer side, in relation to mechanism 3, producers can possibly earn a premium on top of the standard market price for their products, effectively increasing the value of a product. Thus, food labels are a suitable tool for closing the information gap and for increasing the value of a product.

3.1.2 Geographical labelling

One method of labelling food products is through geographical labelling. This type of label communicates the sourcing of a product or attributes of the product within a defined geographical location (Anders and Caswell, 2008: p. 2). Some notable examples of food products that are geographically labelled are: Champagne wine, Parma ham, Darjeeling tea, and Scotch whiskey. But also the text “Made in China” that can be found on many electronic devices is (in addition to its function legal requirement) a type of geographical label (Anders and Caswell, 2008).

For this research the geographical label sub-type **Geographical Indication (GI)** is of interest. The term 'Geographical Indication' is defined by the World Trade Organization (WTO) in their Uruguay Round from 1986 to 1994 in their agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) as: “indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.” (WTO, 1994: p. 328)

The WTO forces its members to supply a basic form of protection to GI's through the TRIPS agreement. All 153 members of the WTO have to provide national laws for the protection of GI's. Since over 95% of all world trade is controlled by members of the WTO, TRIPS can almost be treated as a global agreement (Fergusson, 2007).

Like all WTO members, Vietnam was obliged to conform to the TRIPS agreement after accession to the WTO in January 2007 (WTO, 2009). Vietnam developed a law system that is aimed at conforming to the TRIPS agreement. Not only does the national Intellectual Property Law use the term GI, its definition also resembles closely that of a GI defined in the TRIPS agreement. The law has been ratified in 2005 and since then at least 11 products have been granted GI protection² (The National Assembly of The Socialist Republic of Vietnam, 2005).

GI's are available to all producers within the geographical location that conform to certain standards of production. Producers outside the designated region are forbidden to use it. GI's aim at promoting a certain quality, reputation or other characteristic and when properly managed, GI's achieve the following results:

1. Producers attain premium prices for their products;
2. Product quality is guaranteed to consumers;
3. They contribute to rural development, and;
4. They protect local knowledge and strengthen local traditions.

For developing countries, like Vietnam, GI's are especially interesting. This is because developing countries often have a weak governance structure. In comparison with other intellectual property protection tools, like trademarks and patents, GI's are less resource intensive. Furthermore, there are numerous developing countries that would significantly improve their trade position if their native products would be protected by GI's (Fink and Smarzynska, 2002 cited in Hoekman, et al., 2002, pp. 410-411).

Since GI protected products are niche market oriented, it is impossible to define a single (global) market for GI protected products. The researcher did not find any relevant information on the GI market other than on single products. It is beyond the scope of this research to gather and process this data. Therefore it is impossible to draw conclusions alike to the identification of markets for organic food products that will be done in sub-chapter 4.3.

Under the TRIPS agreement, GI's first need to be protected domestically before international protection is available (WTO, 1994). In order for a product to be eligible for GI protection, certain conditions have to be met. According to the TRIPS agreement these conditions are;

- The reputation, quality or characteristics of a certain product are attributable to their geographical origin;
- There is a clear link between product and its place of origin (Rajashekar, 2007), and;

² Copies of five English translated decisions by the Vietnamese National Office of Intellectual Property are in the possession of the researcher

- GI's are based on collective traditions and a collective decision-making process (Addor and Grazioli, 2002).

The Vietnamese Intellectual Property Law does not demand any additional conditions for GI application other than stated in TRIPS (The National Assembly of the Socialist Republic of Vietnam, 2005: p. 26).

3.1.3 Organic farming labels

The term **organic**, in referring to the method of producing crops lacks a global definition. The only global definition is that an organic product is produced in compliance with organic standards, of which there are numerous. However, the International Federation of Organic Agriculture Movements (IFOAM) is the world leading organization in the area of setting organic guidelines and accreditation systems. IFOAM Basic Standards (IBS) were published from 1980 onwards, and have served as a guideline for national standards, international standards and certification bodies in their efforts to develop their own standards (Willer, et. al, 2008).

The IBS provides a holistic, more meaningful definition. It states that organic farming should: • 1) "Sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.", • 2) "Be based on living ecological systems and cycles, work with them, emulate them and help sustain them", • 3) "Build on relationships that ensure fairness with regard to the common environment and life opportunities.", and • 4) "be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment." (IFOAM, 2007: p. 4-6)

Every country that has a system for classifying and labelling organic food products uses different requirements and different labels. Apart from public standard-setting bodies there are also private standard setting bodies, which also have their own requirements and labels. There are no international laws enforcing organic production requirements.

Although there are numerous organic certification systems, Dankers (2003) identifies common criteria from all systems:

- A conversion periods of up to three years between the start of organic cultivations methods and certification should be complied with;
- Seeds and other propagation material have to be of organic origin;
- Soil fertility has to be maintained using materials of organic origin;
- There are specific guidelines on pest, disease and weed control methods;
- Zero tolerance of pesticides and genetically engineered organisms;
- There are limitations on the usage of organic fertilizers and - pesticides, and;
- Processing, packaging and traceability standards are in effect due to possible mingling with non-organic products.

Organic certification can be costly. All actors in the value chain need to be certified, this indicates the need for a developed vertical relationship in the value chain. In order to keep costs down, many certification systems make use of the option for an “internal control system” (ICS). A Farmer group must set up an ICS under a legal entity that makes sure that all members of the group adhere to the organic certification system. A certifying body has to determine whether the ICS works properly. In fact this means that the ICS as a system is being investigated instead of the individual farmer. Recurring checks of the ICS and random checks of individual farmers are often part of the procedure of certification through an ICS (Dankers, 2003). A review by DiMatteo (2007) of available documentation by different organic regulations indicates that these regulations are aimed at operations with similar production systems and centralized marketing that are organized as a single legal business entity with an internal quality system (DiMatteo, K., 2007: p. 3).

Farmer group certification through the usage of an ICS is not formally recognised in most regulations; however with guidance from IFOAM, it has reached more or less global de facto acceptance (Rundgren, G., 2007: p. 12). The only organic regulations known to the researcher that explicitly mention group certification are the organic standards in: Japan, the U.S., the E.U (DiMatteo, 2007) and India (Ministry of Commerce and & Industry, 2005). These different organic regulations may have slightly different requirements for operating an ICS. But the core elements are the same for all (Dankers, 2003).

3.2 Best practices with food labelling

This sub-chapter provides an overview of best practices and other experiences with GI's and certified organic production systems as described by various studies. Valuable lessons, success factors and points of attention are derived from this overview. The majority of these experiences are from a European or American context. However, there are also experiences from a Vietnamese context. These experiences will also provide insight into the empirical pattern in much the same way as insight is provided in chapter 2 of this thesis.

Due to the volume of different experiences it is important to present them in an organized manner. Categorization is a useful tool to achieve this and will also be used in this chapter.

Roussel and Verdeaux (2007) identify three types of difficulties that may arise when introducing a GI. These are: • 1) difficulties in creating producer groups, • 2) the need to bring in stakeholders and facilitate relations between networks, and • 3) informing distributors and consumers of specific product values. These three are the core difficulties for setting up GI systems. Organic labels follow a similar line of reasoning as GI's. They are both based on traceability of products and can provide better remuneration to producers (Roussel and Verdeaux, 2007: p. 146). Roussel and Verdeaux (2007) suggest that the same types of difficulties arise when introducing an organic label. Thus these three difficulties will be used in this chapter to categorize the lessons, success factors and points of attention for both GI's and organic labels.

Section 3.2.1 focuses on GI's, and section 3.2.2 on organic labels. Since they serve the same purpose, the experiences from a Vietnamese context that provide insight into the empirical pattern are presented similar to the presentation of these insights in chapter 2 of this thesis and are presented in sections 3.2.3 and 3.2.4.

3.2.1 Best practices with Geographical Indications

Creation of producer groups

Experience	Source	(Case) study description
The stronger the horizontal integration amongst farmers, the higher the chance of success for a GI	<ul style="list-style-type: none"> •Mawardi, et al. •Downes and Laird 	<ul style="list-style-type: none"> •Successful GI introduction for coffee in Indonesia, public and private involvement •Review of five case studies, including Rooibos tea and Basmati rice
Empowerment of farmer organizations through capital aid and farmer training is considered to be highly useful	<ul style="list-style-type: none"> •Mawardi, et al. •Dao, et al. 	<ul style="list-style-type: none"> •See previous •GI protected lychee from Vietnam, introduced with assistance from GTZ
Strong vertical relations throughout the value chain should be fostered to increase the chance of success for a GI	<ul style="list-style-type: none"> •Van de Kop, et al. •Suh and MacPherson •Schlegel, et al. 	<ul style="list-style-type: none"> •Thorough review of 3 case studies in France, Peru and Benin with varying results •Extremely successful Boseong tea from Korea •Successful introduction of GI for gherkins from Germany
A traditional production method should be identifiable and documented	<ul style="list-style-type: none"> •Downes and Laird •Dao, et al. •Mawardi, et al. 	<ul style="list-style-type: none"> •See previous •See previous •See previous
Production requirements have to be drawn up and validated by all parties. This promotes a uniform quality product	<ul style="list-style-type: none"> •Kannanuch 	<ul style="list-style-type: none"> •Successful GI protected Sangyod rice from Thailand with a focus on uniform production and promotion activities
Elaborate training and inspection schedules need to be developed to maintain uniform quality	<ul style="list-style-type: none"> •Kannanuch 	<ul style="list-style-type: none"> •See previous

Marketing, technical, legal, and administrative capabilities should be present, directly or indirectly, in the producer group	•Downes and Laird	•See previous
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Table 3.1: Previous experiences on the creation of producer groups with GI's

Facilitation of relations between networks

Experience	Source	(Case) study description
Common standards, rules, coordination, control and exclusion devices should be developed through close cooperation between-farmers and other production parties	•Van de Kop, et al.	•Thorough review of three case studies in France, Peru and Benin with varying results
All actors should have the same goal for the GI. Mutual trust and quality negotiation is crucial, and coordination is the key	•Van de Kop, et al.	•See previous
Capable and willing individuals should be mobilized with all involved parties	•Van de Kop, et al.	•See previous
The public authority should actively support the GI application	•Van de Kop, et al.	•See previous
Farmers should preferably have a guaranteed minimum price for their products	•Hayes, et al.	•Successful introduction for an Italian wine with an emphasis on product promotion
An effective legal system on GI protection should be in place	•Van de Kop, et al.	•See previous

Table 3.2: Previous experiences on the facilitation of relations between networks with GI's

Informing distributors and consumers

Experience	Source	(Case) study description
There should be a significant segmented (niche) market for the product based on the appeal of particular characteristics of the product on consumer groups	<ul style="list-style-type: none"> •Downes and Laird •McCluskey and Loureiro •Van der Lans, et al. •Van Ittersum, et al. 	<ul style="list-style-type: none"> •See table 3.1 •Discussion of multiple empirical studies in a European and American context •Review of Italian GI protected and non-GI protected olive oils •Study on European consumer response to multiple GI protected products
An intensive, professional and coordinated marketing effort should accompany the introduction of a GI	<ul style="list-style-type: none"> •Van de Kop, et al. •Suh and MacPherson •Hayes, et al. •Schlegel, et al. •Kannanuch •Dao, et al. •Van der Lans, et al. •Rangnekar •Bonnet and Simioni 	<ul style="list-style-type: none"> •See table 3.2 •See table 3.1 •See table 3.2 •See table 3.1 •See table 3.1 •See table 3.1 •See previous •Study on the socio-economics of GI's in Europe •Comparison of multiple French Camembert cheeses, including GI protected and non-GI protected cheeses
Tourists are potential customers for products receiving GI protection	<ul style="list-style-type: none"> •Van de Kop, et al. 	<ul style="list-style-type: none"> •See table 3.2
Vietnamese potential customers were identified as having a higher income, the sales trajectory is through supermarkets and selected retail networks	<ul style="list-style-type: none"> •Dao, et al. 	<ul style="list-style-type: none"> •See table 3.1

Table 3.3: Previous experiences on informing distributors and consumers with GI's

An expansive study of 21 successful supply chains in seven European countries by Barjolle and Sylvander (2002) on the success factors for GI labelled products in the agricultural food sector underpins the same conclusions as all the former case studies. The main conclusion reads:

“The primary factor in success is the capacity of a set of firms in a supply chain based in a particular area to effectively coordinate such matters as the identification of joint objectives,

definition and control of quality, variety management, image promotion, and research & development."(Barjolle and Sylvander: 2002, p. 1)

3.2.2 Best practices with organic labels

This sub-chapter focuses on organic labels. The three categories as explained in the introduction of this chapter are used for categorization.

Creation of producer groups

Experience	Source	(Case) study description
The stronger the horizontal integration amongst farmers is, the higher the chance of success for an organic label is	<ul style="list-style-type: none"> •FAO •Luis and Firmino 	<ul style="list-style-type: none"> •Review of a GTZ project on organic tea production in India •Study on the prospects of organic farming Hanoi and Nanjing (China) with a particular focus on constraints and proposed solutions
Farmer skills have to be developed on cross-farm contamination control	<ul style="list-style-type: none"> •Santacolama •Luis and Firmino 	<ul style="list-style-type: none"> •Elaborate review, by FAO researcher, of 7 case studies on organic certification schemes, in developing or transition economies in the rice or fruit sector •See previous
Farmer skills have to be developed on post harvest practices	<ul style="list-style-type: none"> •Santacolama 	<ul style="list-style-type: none"> •See previous
Farmer skills have to be developed on documenting and record keeping on the process flow in the farm, high literacy rate is a prerequisite for this	<ul style="list-style-type: none"> •Santacolama •FAO •Luis and Firmino 	<ul style="list-style-type: none"> •See previous •See previous •See previous
Depending on the point of sale, farmers must be able to clearly promote their organic produce	<ul style="list-style-type: none"> •Santacolama 	<ul style="list-style-type: none"> •See previous
Farmers should receive (financial) support during the conversion period when yields are low	<ul style="list-style-type: none"> •FAO •Luis and Firmino 	<ul style="list-style-type: none"> •See previous •See previous

Farmers should preferably have access to credit schemes to finance the required investments	<ul style="list-style-type: none"> •Luis and Firmino 	<ul style="list-style-type: none"> •See previous
Sufficient soil fertility and a steady supply of organic compost material are major prerequisites	<ul style="list-style-type: none"> •Williges •Simmons 	<ul style="list-style-type: none"> •PhD Thesis on Sri Lankan organic tea farmers, that successfully introduced organic tea with the help of an NGO and a private company •Review of IPM initiatives in Vietnam, including a project from ADDA that included 117 organic vegetable farmers
Preferably neighbouring farmer groups have to be included in the organic chain in order to decrease the risk of (pesticide) contaminations from outside	<ul style="list-style-type: none"> •Simmons •Tran (2004) 	<ul style="list-style-type: none"> •See previous •Value chain analysis of the Vietnamese tea sector
Vietnamese farmers tend to confuse organic farming with IPM, pesticides and synthetic fertilizers are banned in the latter	<ul style="list-style-type: none"> •Firmino 	<ul style="list-style-type: none"> •Study on the prospects of organic farming Hanoi and Nanjing (China)

Table 3.4: Previous experiences on the creation of producer groups with organic labels

Facilitation of relations between networks

Experience	Source	(Case) study description
Farmers should preferably have a guaranteed minimum price for their products	<ul style="list-style-type: none"> •FAO •Williges 	<ul style="list-style-type: none"> •Review of a GTZ project on organic tea production in India •PhD Thesis on Sri Lankan organic tea farmers, that successfully introduced organic tea with the help of an NGO and a private company
Capable and willing individuals should be mobilized with all involved parties	<ul style="list-style-type: none"> •FAO 	<ul style="list-style-type: none"> •See previous

Although an ICS is the least resource intensive option for organic certification, it still demands a substantial investment of around US\$5000 per certificate	<ul style="list-style-type: none"> •FAO •Luis and Firmino •Tran (2004) 	<ul style="list-style-type: none"> •See previous •Study on the prospects of organic farming Hanoi and Nanjing (China) with a particular focus on constraints and proposed solutions •See previous
At the organizational level skills are needed on: site survey, supply chain actor selection and production technology selection	<ul style="list-style-type: none"> •Santacolama •FAO 	<ul style="list-style-type: none"> •Elaborate review, by FAO researcher, of 7 case studies on organic certification schemes, in developing or transition economies in the rice or fruit sector •See previous
At the organizational level skills are needed on managing input supply and post production activities	<ul style="list-style-type: none"> •Santacolama •FAO 	<ul style="list-style-type: none"> •See previous •See previous
At the organizational level skills are needed on ICS regulations, protocols, records, inspections reports, agreements and post harvest procedures	<ul style="list-style-type: none"> •Santacolama •FAO 	<ul style="list-style-type: none"> •See previous
At the organizational level skills are needed on form design and ICS manual in order to communicate clearly with farmers	<ul style="list-style-type: none"> •Santacolama •FAO 	<ul style="list-style-type: none"> •See previous •See previous
At the organizational level skills are needed on preparation of training material	<ul style="list-style-type: none"> •Santacolama •FAO 	<ul style="list-style-type: none"> •See previous •See previous
At the organizational level skills are needed on handling, packaging and storing activities	<ul style="list-style-type: none"> •Santacolama •FAO 	<ul style="list-style-type: none"> •See previous •See previous

Table 3.5: Previous experiences on the facilitation of relations between networks with organic labels

Informing distributors and consumers

Experience	Source	(Case) study description
There should be a market for high quality, organic tea, preferably this should be a domestic market	<ul style="list-style-type: none"> •FAO •Simmons 	<ul style="list-style-type: none"> •Review of a GTZ project on organic tea production in India •Review of IPM initiatives in Vietnam, including a project from ADDA that included 117 organic vegetable farmers
The producer group should have access to the identified market for organic products	<ul style="list-style-type: none"> •FAO •Simmons 	<ul style="list-style-type: none"> •See previous •See previous

Table 3.6: Previous experiences on informing distributors and consumers with organic labels

3.2.3 Previous experiences with GI's from a Vietnamese context

A study in Vietnam by Tran (2005) aimed to determine how well known and appreciated, local and speciality products are in Hanoi and Ho Chi Minh City. A consumer survey was held in these two cities. This survey produced a list of 265 products that appealed to consumers because of one of the following reasons: • 1) The products had superior taste and safety, • 2) The products had a high cultural value, and • 3) The products are consumed on special occasions.

Many interviewees expressed their doubts on the origin of the products they consume. This is a clear indication of information asymmetry. And although tea from Ha Giang and Lai Chau is not on the list of identified products, this study does show that there appears to be a market for GI protected products in Hanoi and Ho Chi Minh City.

The General Secretary of the Vietnam Tea Association mentions that Vietnamese consumers are very susceptible to quality. Domestic prices can be up to 15 times higher than export prices. In general however, this premium is around 50%. The regions of Moc Chau, Thai Nguyen, and Kim Anh are mentioned as sources for high quality tea. Ha Giang and Lai Chau are not mentioned (Khac, n.d.).

Summarizing, it can be stated that:

- There are indications of information asymmetry in the Vietnamese domestic food market in urban regions.
- There are no indications that Snow Tea from Ha Giang is perceived as a famous high quality tea.

3.2.4 Previous experiences with organic labels from a Vietnamese context

Organic farming is a new phenomenon to Vietnam. There are no studies on Vietnamese experiences with organic farming. However, there are more general studies that put Vietnamese experiences in a broader context.

The Vietnamese domestic market is very small. Luke Simmons (2008) states in his thesis: "Today, around 90 percent of the organic production is destined for export, mainly to Europe and the US. The local market for organic vegetables is very underdeveloped, with only small amounts of organic vegetables and tea being sold mostly to foreigners or wealthy Vietnamese in Hanoi and Ho Chi Minh City and various five star resorts and restaurants around the country." (Simmons, 2008: p. 72) Tran, et al. (2004) identify organic production as a potential market for Vietnamese cooperative farmers. But although there are high premiums to be earned in foreign markets, organic tea on the domestic market fetches an even lower price than conventional tea.

The latest figures state that Vietnam in 2005 had a total area of 6.475 ha under organic management (Willer, et. al, 2008). Informed sources estimate that in 2007 another 6000 to 7000 ha can be added to that figure (Den Braber and Thi, 2007). The size of the Vietnamese organic food industry becomes apparent when these figures are compared against the 30 million acres that are globally under organic management (Willer, et. al, 2008). Furthermore, there is no national certification or law system; the Vietnamese government is in the process of implementation (Den Braber and Thi, 2007). When this is achieved it will undoubtedly provide a boost to the sector and domestic market. But until this actually happens, the domestic Vietnamese market will remain insignificant. If Vietnamese farmers want to become active in the organic food market, their best chances are through export.

Global organic sales increased up to a total of US\$ 38.6 billion in 2006, doubling the total sales attained in 2000. The market for organic products is concentrated in North America and Europe, where approximately 97% of the global organic revenues are attained (Willer, et. al, 2008).

A quick review of the American organic market provides the first clues of the achievements of organic labelling. The United States Department of Agriculture measured an average price premium for organic products ranging from 40% to over 175% for different types of food (Golan, et al., 2001). This clearly indicates a high willingness to pay for organic products in the US.

Table 3.7 depicts the willingness of European consumers to pay for organic products set against the levied price premium.

Study	Country and survey year	Price premium for organic foods (%)					
		5-10	10-20	20-30	30-40	40-50	50-60
		Proportion of consumers that will buy organic foods (%)					
Drake and Holm (1989)	Sweden, 1987	45	n.a.	n.a.	n.a.	n.a.	n.a.
Beharrell and MacFie (1991)	UK, 1989	50-80	25-50	15-20	18-20	16-18	15-16
Coopers and Lybrand Deloitte (1992)	UK, 1989	50-65	25-50	20-25	15-20	13-15	11-13
Bugge and Wandel (1995)	Norway, 1993	70	40	10	n.a.	3-5	n.a.
Bjerke (1992)	Denmark, 1990		n.a.	n.a.	n.a.	15	n.a.
Grunert and Kristensen (1995)	Denmark, 1991	n.a.	54		5	n.a.	n.a.
Scan-Ad (1998)	Denmark, 1998	65	20	11	n.a.	n.a.	n.a.
Hack (1995)	The Netherlands, 1991	95	90	85	80		60
Krämer, et al. (1998)	Germany, n.a.		31		52		9
Fricke (1996)	Germany, 1994	30	26		25		4
CMA (1996)	Germany, 1996	29	28		30		3

Table 3.7: European overview of willingness to pay for organics (Wier and Calverly, 2002)

The Asian organic market was accountable for a revenue of US\$ 750 million in 2004 and increased to US\$ 780 million in 2006 (Willer, et. al, 2008) of which US\$ 400 million can be accounted for by Japan. Biggest growth in Asia in 2004 was reported in China. Furthermore, there are noteworthy markets in: South Korea, Taiwan, Singapore and Malaysia (Simmons, 2008; Willer, et. al, 2008). No information on the willingness to pay for organic food by Asian consumers has been found. It is evident that organic products also attain premium prices in Asian markets.

Summarizing, it can be stated that:

- The Vietnamese domestic market for organic tea is very small.
- Vietnam lacks a national organic certification or law system.
- The best opportunities for exporting organic tea are in the United States of America, Europe and some Asian countries (e.g. Japan and China)

3.3 Conclusions

The goal of this chapter is to answer research question 1 by identifying and formulating the conditions that contribute to the introduction of a GI or an organic

label in the Vietnamese tea sector. The categorization as used in sub-chapter 3.2, which is aimed at providing an overview of best practices, is not applicable in this chapter. The required conditions should be aimed at making a choice for the introduction of either one, or both food labels and at identifying what lacking conditions should be improved before such a label is introduced.

Categorization and phasing of the required conditions will be applied as follows. The first categorization is: • 1) Conditions that apply to both GI's and organic labels, • 2) Conditions that apply only to GI's, and • 3) Conditions that apply only to organic labels.

Sub-categorization between conditions is on the "importance" of the condition. From top to bottom the conditions are in rank of importance where the top is "an absolute necessity" and the bottom is merely "conducive". Distinction is made between "necessary conditions" and merely "conducive conditions".

The final ordering of the required conditions is on whether the identified conditions are adaptable or not by SNV and its partners within their capabilities. As a result the final categorization is: • 1) The conditions are non-adaptable, or • 2) The conditions adaptable. The conditions set in the grey background are non-adaptable conditions and the conditions lacking this background are adaptable conditions. The references between brackets indicate the locations in this report from where these requirements are derived.

3.3.1 Shared required conditions

This section provides an overview of required conditions that apply both to GI's and organic labels.

Necessary conditions

- I. For the introduction of a food label to be successful, there must be an existing situation of information asymmetry between tea producers from Ha Giang and Lai Chau and their (potential) customers. (*section 3.1.1*)
- II. Strong vertical and horizontal relationships in the value chain. (*table 3.1 and table 3.4*)
- III. Elaborate farmer training and inspection schedules need to be in place in order to maintain uniform quality. (*table 3.1, table 3.5*)

Conducive conditions

- IV. Capable and willing individuals should be amongst all actors involved. (*table 3.2, table 3.5*)
- V. Empowered farmer organizations through capital aid and training are considered to be highly useful. (*table 3.1, table 3.4*)
- VI. Farmers should preferably have a guaranteed minimum price for their products. (*table 3.2, table 3.5*)

3.3.2 Required conditions for Geographical Indications

This section provides an overview of required conditions that apply only to GI's.

Necessary conditions

- I. There should be a significant segmented (niche) market for the product based on the appeal of particular characteristics of the product on consumer groups. (table 3.3)
- II. An effective legal system on GI protection should be in place. (table 3.2)
- III. The public authority should actively support the introduction of the GI protected product. (table 3.2)
- IV. The reputation, quality or characteristics of a certain product are attributable to their geographical origin. (section 3.1.2)
- V. There is a clear link between product and its place of origin. (section 3.1.2)
- VI. Collective traditions and a collective decision-making process are identifiable in the production chain. (section 3.1.2, and table 3.1)
- VII. Marketing, technical, legal, and administrative capabilities should be present, directly or indirectly, in the producer group. (table 3.1)
- VIII. Common standards, rules, coordination, control and exclusion devices should be developed through close cooperation between farmers and production parties. (table 3.1, table 3.2)
- IX. An intensive, professional and coordinated marketing effort should accompany the introduction of a GI. (table 3.3)

Conducive conditions

- X. All actors should have the same goal for the GI. (table 3.2)
- XI. A significant tourist sector is highly beneficial for the introduction of a GI protected product. (table 3.3)
- XII. In order to reach higher income consumers in Vietnam, access to supermarkets and selected retail networks is required. (table 3.3)

3.3.3 Required conditions for organic labels

This section provides an overview of required conditions that apply only to organic labels.

Necessary conditions

- I. The existence of a market for high quality, organic tea. Preferably this is a domestic market. (table 3.6)
- II. The producer group should have access to the identified market for organic products. (table 3.6)

- III. A legal entity should be available to be certified as an organic producer and/or capable of operating the ICS. (*section 3.1.3*)
- IV. At an organizational level skills are needed on: site survey, assessment of production and producers, stakeholder selection, project design, supply chain actor selection and production technology selection. (*table 3.5*)
- V. At an organizational level skills are needed on managing input supply and post production activities. (*table 3.5*)
- VI. At an organizational level skills are needed on ICS regulations, protocols, records, inspections reports, agreements and post harvest procedures. (*table 3.5*)
- VII. At an organizational level skills are needed on form design and ICS manual design in order to communicate clearly with farmers. (*table 3.5*)
- VIII. At an organizational level skills are needed on handling, packaging and storing activities. (*table 3.5*)
- IX. Production, processing and packaging of organic tea should not be mixed with non-organic products. (*section 3.1.3*)
- X. Farmer skills are needed on documenting and record keeping of the process flow in the farm, high literacy rate is a prerequisite for this. (*table 3.4*)
- XI. Farmer skills are needed on contamination control from neighbouring farmers. (*table 3.4*)
- XII. Farmer skills are needed on post harvest practices. (*table 3.4*)
- XIII. Funds have to be available for the direct certification costs of up to US\$5000. (*table 3.5*)
- XIV. Farmers should use organic seeds and propagation material. (*section 3.1.3*)
- XV. Farmers should make limited use of organic fertilizers and organic pesticides. (*section 3.1.3*)
- XVI. Farmers should not make use of chemical substances (like pesticides and chemical fertilizers) for pest, disease and weed control and for maintaining soil fertility. (*section 3.1.3*)
- XVII. Farmers should receive financial support during the conversion period of up to two or three years, due to declining yields in this period. (*section 3.1.3, table 3.4*)
- XVIII. Involved tea farmers need to understand the difference between Integrated Pest Management (IPM) farming and organic farming. (*table 3.4*)

Conducive conditions

- XIX. Preferably neighbouring farmer groups have to be included in the organic chain in order to decrease the risk of (pesticide) contaminations from outside. (*table 3.4*)

- XX. Sufficient soil fertility and a steady supply of organic compost material are major prerequisites. (*table 3.4*)
- XXI. Depending on the point of sale, farmers must be able to clearly promote their organic product. (*table 3.4*)
- XXII. Farmers should preferably have access to credit schemes to finance the required investments. (*table 3.4*)

Although there are clear common elements, different organic certification systems have slightly different requirements. The following required conditions pertain to these requirements: III, V, VI, VII, VIII, X, XI, XV and XVI. The exact conditions for these requirements will differ slightly according to the chosen (export) market.

Having determined the required conditions, the next chapter presents the actual conditions in the provinces of Ha Giang and Lai Chau.

4. Actual conditions

With the required conditions identified, this chapter provides an answer to research question 2 on basis of primary data that was gathered during the field research in Ha Giang and Lai Chau. Based on the required conditions from chapter 3 a questionnaire was developed that is presented in appendix 3 of this thesis. The interviewees were identified using chapter 2 of this thesis.

In addition to the primary data, the actual conditions are reinforced by insights from the overview of the tea sector and the previous experiences with food labelling from a Vietnamese context.

This chapter uses a summary format to present the actual conditions; distinction is made between shared conditions, conditions that only apply to a GI, and conditions that only apply to an organic label. A condition by condition overview of Ha Giang is presented in appendix 4 of this thesis and in appendix 5 for Lai Chau.

4.1 Actual conditions in Ha Giang province

The field research in Ha Giang province was conducted from 7 to 27 June 2009. A list of interviewees is provided in appendix 6.

4.1.1 Shared actual conditions

In general, the relationships in the tea sector in Ha Giang are weak. Vertical relationships between farmers, collectors, producers and traders are almost exclusively on an economic basis. HCTC has contracts with part of their suppliers, but the effectiveness of these contracts is limited. Vertical relationships in the production chain that include small household processors and small collectors are considered to be the weakest.

Horizontal relationships between all actors are also weak. There is no farmer cooperation and there are no farmer organizations capable of coordinating the introduction of a GI or organic label. On an individual level, there are capable and willing persons at every crucial actor in the tea value chain, including HCTC, tea farmers and the local authorities.

Training capacities are limited in the tea sector in Ha Giang. The governmental Department of Agricultural and Rural Development (DARD) is the main facilitator of training sessions for farmers in Ha Giang. However, DARD is not a specialized organisation and lacks advanced knowledge on tea cultivation.

4.1.2 Actual conditions for Geographical Indications

Snow Tea thrives at higher altitudes and benefits from the relatively high temperature difference between day and night in the highland region. Therefore Snow Tea from the highland region in Ha Giang is different from more conventional teas a tea with a distinctive taste.

In addition to this distinctiveness, tea farmers in the highland region only prune the trees once a year. This results in tall and large tea trees. In order to harvest tea from these trees, a typical and traditional tea plucking method is required; farmers pluck tea from tree sized tea plants rather than the conventional shrub sized plants. Sometimes this even results in farmers having to climb the trees to pluck them; this is a unique plucking method.

Despite these two distinctive aspects, Snow Tea cultivation is widespread throughout the whole of the northern tea growing area of Vietnam and the bordering region of China. For example, Snow Tea from Ha Giang is very similar to Snow Tea from the Yunnan province in China. Thus, the described cultivation of Snow tea is not restricted to Ha Giang province only; this is an essential requirement for GI eligibility.

Related to this, is the question whether a demand for GI protected Snow Tea from Ha Giang exists. HCTC indicates that there is some interest from foreign potential customers. However, it is uncertain if this interest is based on the characteristics that are targeted by a GI. Instead, there are indications that this interest is based upon the organic aspect of the Snow Tea in the highland region of Ha Giang. It is also unknown if this interest will develop into an actual demand.

Currently all of HCTC's output, and virtually all tea from Ha Giang is sold unlabelled and in bulk. No intensive and coordinated marketing efforts have been executed by any parties for the promotion of Snow Tea from Ha Giang. There is support from the local authorities for the introduction of a GI, but they also lack any marketing experience and capabilities. It can be concluded that marketing capabilities are not present in the producer group or the supporting parties.

4.1.3 Actual conditions for organic labels

The lack of farmer organizations means that the only legal entity available and capable of being certified as an organic producer and capable of operating an ICS is HCTC. Any organic certification initiative has to be centred on HCTC.

However, HCTC and the rest of the producer group in Ha Giang (farmers and leaf assemblers) lack some essential skills: • 1) the producer group lacks specific knowledge on organic cultivation techniques, • 2) management and administration of input supplies is non-existent in the producer group, • 3) production manual design skills are not available in the producer group, • 4) HCTC's current production tracking system is not up to the level that is required for organic certification, and • 5) there are no identifiable isolated production lines within HCTC's network of production facilities.

To identify a potential organic tea farmer group in Ha Giang, a distinction should be made between farmers in the lowland region and farmers in the highland region. Farmers in the lowland region are involved with intensive tea farming and use pesticides and chemical fertilizers in their cultivation practices. Farmers in the

highland region make no use of pesticides and chemical fertilizers in their tea cultivation. Therefore, the highland region should be the focus of any organic initiative. However, this does not automatically mean that the highland farmers are sufficiently prepared for organic tea cultivation.

None of the interviewed highland farmers know what either IPM or organic farming means and as a result they are not fully aware of the dangers of the usage of pesticides and chemical fertilizers and the risk of contamination of these substances between crops. Since farmers in the highland region do apply chemical fertilizers to their rice paddies it is vital that this awareness and knowledge is attained, otherwise intercrop contamination becomes a serious threat to organic tea cultivation. This threat is further enhanced by the fact that there are very few areas with undisrupted tea fields. In addition, there is an elaborate system of irrigation channels that feed the rice paddies; these are a potential carrier of chemical fertilizer residue and further enhance the threat of contamination.

Highland tea farmers also lack some organizational skills; they do not have any type of documentation system in place and post harvest practices are limited to collecting tea and transporting it to the nearest collection point or factory. There are no skills on maintaining input and output documentation.

From a consumer perspective; the Vietnamese market for organic tea is too small. However, there are large and growing export markets in Japan, China, Taiwan, the United States of America and European countries. Chinese traders are already active in Ha Giang province and in some cases focus on the higher quality tea; this indicates a potential higher market segment in China. HCTC has indirect sales connections with Afghanistan, Pakistan, Russia, Korea, India, Taiwan, China, Germany, the United States of America and the Netherlands. HCTC has indicated that they would like to export directly to these countries but they have difficulties in selecting their entry mode.

4.2 Actual conditions in Lai Chau province

The field research in Lai Chau province was conducted from 11 to 29 May 2009. A list of interviewees is provided in appendix 7.

4.2.1 Shared actual conditions

There are huge differences in the strength of relationships between actors in the tea value chain in Lai Chau. Vertical relationships in Tan Uyen district are far stronger than in Tam Duong district and Lai Chau Town. TUTC has achieved this by forming a supply base with contracted farmers and farmers that are actually employed by TUTC. The relationship between these farmers and TUTC is strong. Vertical relationships in Tam Duong and Lai Chau Town are mostly on a purely economic basis. STC and TDTC try to increase the strength of their relationships with the farmers that supply them by signing contracts with them. However, regularly farmers do not honour their contracts, indicating a weak relationship. TGTC does not

even have direct contact with the farmers that supply them but instead relies completely on tea leaf collectors.

Horizontal relationships are considered weak throughout the whole of Lai Chau province; no cooperation whatsoever was found with any of the actors on a horizontal level. There are no farmer organizations capable enough to coordinate the introduction of a GI or organic label.

On an individual level, there are capable and willing persons with every crucial actor in the tea value chain in Lai Chau, from private sector parties to local authorities. Farmers have also indicated a willingness to cooperate. In the case of TUTC, farmers have a strong incentive to cooperate with any labelling activity since they depend heavily on TUTC for their income.

Farmer training is carried out in an unsystematic manner throughout the whole of Lai Chau province. However, although unsystematic, the whole supplier base of TUTC has received IPM training. Local authorities like DARD and the Plant Protection Sub Department and TUTC have the most experience with organizing training sessions.

4.2.2 Actual conditions for Geographical Indications

Snow Tea production methods in Lai Chau and the characteristics of Snow Tea from Lai Chau do not positively differentiate themselves from any other tea producing region in the world. Production methods are at best “from the textbook” and although the tea itself is very characteristic for the area it comes from, there is no significant positive acknowledgement of these characteristics. There are no identifiable traditions related to the production of Snow Tea.

As is the case in Ha Giang, Snow Tea cultivation is widespread throughout the whole of the northern tea growing area of Vietnam and the bordering area of China. Thus, the described cultivation of Snow tea is not restricted to Lai Chau province only; an undeniable requirement for GI eligibility.

There is no proven and identified (niche) market for GI protected Snow Tea from Lai Chau province. Profitability of a GI is highly uncertain. The introduction of a GI is only feasible when there is a substantial and identified niche market for the specific product; which is not the case. Snow Tea from Lai Chau is considered as a very common tea in the domestic market that is available throughout the whole of Vietnam. The international market considers Snow Tea from Lai Chau as a cheap, low quality tea that is instantly interchangeable with other teas from Vietnam.

Related to this, no intensive and coordinated marketing efforts have been executed by any party in order to promote Snow Tea from Lai Chau. There is support from the local authorities for the introduction of a GI, but they also lack any marketing experience. It can be concluded that marketing capabilities are not present in the producer group or the supporting parties.

4.2.3 Actual conditions for organic labels

The only legal entity in Lai Chau that has potential to be certified as an organic producer and is capable of operating an ICS is TUTC. TUTC has the best organizational skills, operates on the largest scale and has a solid base of raw material suppliers. STC and TGTC have weak technical, legal, and administrative capabilities and the overall capabilities of TDTC should be considered as very low due to the company's enduring declining productivity and their weak financial position.

However, TUTC and their supplier farmers lack some essential knowledge and skills:

- 1) knowledge of organic cultivation techniques is lacking,
- 2) skills on management and administration of input supplies are weak. TUTC produces according to IPM guidelines, however their enforcement system is mostly undocumented and its correct functioning is difficult to prove,
- 3) skills on complete production manual design are not available in the producer group,
- 4) handling, packaging and storing activities and traceability between these activities are not up to organic standards. TUTC has an insufficiently developed traceability system throughout their total production process that needs improvement before it is up to organic standards, and
- 5) there are no identifiable isolated production lines within TUTC production chain.

Currently, farmers in Lai Chau make regular use of chemical substances like pesticides, herbicides and chemical fertilizers. Farmers that do not use these substances indicate that the investment is too high, but would use them again when it is worth the investment.

Conversely, all interviewed farmers also make use of buffalo or pig manure as part of their total fertilizer package. Furthermore, farmers that have had IPM training from TUTC use tea plant pruning waste as organic fertilizer or mulch. None of the interviewed farmers use organic propagation material. They collect tea seeds or seedlings from non-organic sources.

All farmers that supply TUTC know what IPM is and have received IPM training. However, none of the interviewed farmers know what “organic farming” means. Awareness of the dangers of the usage of chemical fertilizers and the possibilities of contamination is also limited to the farmers that supply TUTC. However, their efforts to prevent contamination from happening are not up to the level that organic standards prescribe. Since there are few areas with undisrupted tea fields, this awareness is vital for any organic initiative. The best potential location for organic tea cultivation is amongst the relatively undisrupted land in Tan Uyen district that either belongs to TUTC or to farmers with whom TUTC has contracts.

Since farmers in Lai Chau depend heavily upon non-organic cultivation techniques, production yields will decline during the conversion period towards organic cultivation. TUTC indicates that it is willing to support farmers financially during this period until yields have recovered.

As stated in section 4.1.6, from a consumer perspective; the Vietnamese market for organic tea is too small. However, there are large and growing export markets in Japan, China, Taiwan, the United States of America and European countries. TUTC has indirect sales connections with Japan, Taiwan and China and has indicated that they would like to export directly to these countries. These countries are amongst the largest markets for organic green tea in the world. Access to these markets should be a priority when organic certification is considered. Taiwan only recognizes organic imports from a selected group of countries, of which Vietnam is not a part. This leaves Japan and China as the best potential organic green tea export markets.

Having determined the actual conditions, the next chapter compares the required conditions with these actual conditions.

5. Gap analysis

This chapter provides an answer to research question 3 by comparing the required conditions from chapter 3 with the actual conditions from chapter 4. Based on this gap analysis, it is motivated what lacking required conditions in Ha Giang and Lai Chau should be improved in order to introduce a GI or an organic label.

Although this chapter refers to the actual conditions in Ha Giang and Lai Chau, not all mentioned conditions are explained in full. For a complete overview and full explanation of the actual provinces in Ha Giang and Lai Chau, the reader is referred to respectively appendices 4 and 5.

Sub-chapter 5.1 focuses on Ha Giang and sub-chapter 5.2 focuses on Lai Chau.

5.1 Gap analysis for Ha Giang

Section 5.1.1 focuses on the introduction of a GI and section 5.1.2 focuses on the introduction of an organic label.

5.1.1 Geographical Indication

Table 5.1 provides an overview of the values of the actual conditions for the introduction of a GI in Ha Giang.

	Lacking conditions	Favourable conditions that require attention	Favourable conditions
Necessary conditions	6	2	4
Conducive conditions	4	1	1

Table 5.1: Overview of actual conditions for a GI in Ha Giang

There is a “gap” of 10 lacking conditions for the introduction of a GI in Ha Giang, these are:

- From section 3.3.1 shared conditions II, III and V.
- From section 3.3.2 GI specific conditions V, VII, VIII, IX, X, XI and XII.

Research question 3 focuses on improving any lacking conditions, therefore table 5.2 breaks the lacking conditions down based on whether the lacking conditions are adaptable or non-adaptable.

	Non-adaptable (total)	Adaptable (total)
Lacking necessary conditions	1 out of (6)	5 out of (6)
Lacking conducive conditions	2 out of (4)	2 out of (4)

Table 5.2: Overview of lacking conditions for a GI in Ha Giang

Section 5.1.3 formulates conclusions based on this overview of lacking conditions.

5.1.2 Organic label

Table 5.3 provides an overview of the values of the actual conditions for the introduction of an organic label in Ha Giang.

	Lacking conditions	Favourable conditions that require attention	Favourable conditions
Necessary conditions	14	1	6
Conducive conditions	2	3	2

Table 5.3: Overview of actual conditions for an organic label in Ha Giang

There is a “gap” of 16 lacking conditions for the introduction of an organic label in Ha Giang, these are:

- From section 3.3.1, shared conditions II, III and V.
- From section 3.3.3, organic label specific conditions II, IV, V, VI, VII, VIII, IX, XI, XII, XIV, XVI, XVIII and XXI

Research question 3 focuses on improving any lacking conditions, therefore table 5.4 breaks the lacking conditions down based on whether the lacking conditions are adaptable or non-adaptable.

	Non-adaptable (total)	Adaptable (total)
Lacking necessary conditions	0 (out of 14)	14 (out of 14)
Lacking conducive conditions	0 (out of 2)	2 (out of 2)

Table 5.4: Overview of lacking conditions for an organic label in Ha Giang

Section 5.1.3 formulates conclusions based on this overview of lacking conditions.

5.1.3 Conclusions for Ha Giang

From the achieved research results it can be concluded that **the successful introduction of a GI for Snow Tea from Ha Giang is not feasible**. The dominant factor for this conclusion is one lacking and non-adaptable condition; Snow Tea farming is widespread throughout the whole of the northern tea growing area of Vietnam and the bordering area of China. An undeniable aspect of a GI is that it should be restricted to a geographical area from where a specific product is unique or that is the origin of the product, this not the case with Snow Tea from Ha Giang.

In addition, there are two other important bottlenecks that would seriously hinder the successful introduction of a GI; these are the two favourable conditions that require attention from table 5.1:

- It is uncertain whether there is a significant segmented (niche) market for the product based on the appeal of particular characteristics based on the origin of the product on consumer groups. This demand might also be based on other

factors (e.g. organic cultivation or a relatively low price). There are indications from the interviews that this demand is based on the organic aspect of the Snow Tea from Ha Giang rather than the GI aspects. If these indications are coherent with the true motivation of the potential customers, there is no identified significant market for GI protected Snow Tea from Ha Giang.

- There have not yet been any intensive, professional and coordinated marketing efforts that incorporated the GI features of Snow Tea from Ha Giang. GI’s communicate the sourcing of a product or attributes of the product within a defined geographical location. If there is no positive recognition based upon the sourcing or attributes of this product, it will require a (costly) marketing effort to “create” this positive recognition. It is highly uncertain if any price premium attained from this weighs up against the costs involved.

From the achieved research results it can also be concluded that **the successful introduction of an organic label for Snow Tea from Ha Giang is possible**. The fact that tea farmers in the highland region are already (although not necessarily intended and certainly not in a certified manner) producing tea in line with organic farming methods provides a strong incentive for certifying this production chain. This phenomenon is hereafter referred to as “de facto organic production”.

However, in order for the introduction of an organic label to be successful there are 16 lacking conditions that need to be improved. In addition, four favourable conditions require attention, these are:

- From section 3.3.1, shared condition IV.
- From section 3.3.3, organic label specific conditions X, XIX and XXII.

Chapter 6 describes in detail what interventions are required to successfully introduce an organic label in Ha Giang.

5.2 Gap analysis for Lai Chau

Section 5.2.1 focuses on the introduction of a GI and section 5.2.2 focuses on the introduction of an organic label.

5.2.1 Geographical Indication

Table 5.5 provides an overview of the values of the actual conditions for the introduction of a GI in Lai Chau.

	Lacking conditions	Favourable conditions that require attention	Favourable conditions
Necessary conditions	9	1	2
Conducive conditions	4	1	1

Table 5.5: Overview of actual conditions for a GI in Lai Chau

There is a “gap” of 13 lacking conditions for the introduction of a GI in Lai Chau, these are:

- From section 3.3.1 shared conditions II, III and V.
- From section 3.3.2 GI specific conditions I, IV, V, VI, VII, VIII, IX, X, XI and XII.

Research question 3 focuses on improving any lacking conditions. Table 5.6 breaks the lacking conditions down based on whether the lacking conditions are adaptable or non-adaptable.

	Non-adaptable (total)	Adaptable (total)
Lacking necessary conditions	4 (out of 9)	5 (out of 9)
Lacking conducive conditions	2 (out of 4)	2 (out of 4)

Table 5.6: Overview of lacking conditions for a GI in Lai Chau

Section 5.2.3 formulates conclusions based on this overview of lacking conditions.

5.2.2 Organic label

Table 5.7 provides an overview of the values of the actual conditions for the introduction of an organic label in Lai Chau.

	Lacking conditions	Favourable conditions that require attention	Favourable conditions
Necessary conditions	14	2	5
Conducive conditions	3	3	1

Table 5.7: Overview of actual conditions for an organic label in Lai Chau

There is a “gap” of 17 lacking conditions for the introduction of an organic label in Lai Chau, these are:

- From section 3.3.1, shared conditions II, III and V.
- From section 3.3.3, organic label specific conditions II, IV, V, VI, VII, VIII, IX, XI, XII, XIV, XVI, XVIII, XXI and XXII

Research question 3 focuses on improving any lacking conditions, therefore table 5.8 breaks the lacking conditions down based on whether the lacking conditions are adaptable or non-adaptable.

	Non-adaptable (total)	Adaptable (total)
Lacking necessary conditions	0 (out of 14)	14 (out of 14)
Lacking conducive conditions	0 (out of 3)	3 (out of 3)

Table 5.8: Overview of lacking conditions for an organic label in Lai Chau

Section 5.2.3 formulates conclusions based on this overview of lacking conditions.

5.2.3 Conclusions for Lai Chau

From the achieved research results it can be concluded that the successful introduction of a **GI for Snow Tea from Lai Chau is not feasible** due to four lacking, non-adaptable necessary conditions. These conditions are:

- There is no proven significant segmented (niche) market for the product based on the appeal of particular characteristics based on the origin of the product on consumer groups.
- Snow Tea production methods in Lai Chau and the characteristics of Snow Tea from Lai Chau do not positively differentiate themselves from any other tea producing region in the world.
- It is impossible to geographically restrict Snow Tea to only La Chau province.
- There are no identifiable traditions related to the production of Snow Tea and there is no collective decision making in place concerning the production methods throughout Lai Chau province.

From the achieved research results it can also be concluded that **the successful introduction of an organic label for Snow Tea from Lai Chau is feasible**. However, in order for the introduction of an organic label to be successful there are 17 lacking conditions that need to be improved. In addition, five favourable conditions require attention, these are:

- From section 3.3.1, shared condition IV.
- From section 3.3.3, organic label specific conditions X, XV, XIX and XX.

Chapter 6 describes in detail what interventions are required to successfully introduce an organic label in Lai Chau.

6. Proposed interventions

This chapter presents a set of interventions and recommendations that are based on the conclusions of the gap analysis from chapter 5. By providing these interventions and recommendations this chapter answers the main problem.

The necessary steps towards organic certification are presented below in bold text. These are highly objective steps and are meant to serve as a framework for SNV and their partners to facilitate a discussion and the decision making process. In addition to this framework, the researcher provides his professional advice and vision on how these steps should be taken by identifying what actions need to be taken by whom and at what moment in the process.

SNV does not intend to place itself in the value chain or take over any of the tasks and responsibilities of the current actors in the value chain. Rather, SNV has an advisory role. In general, it can be stated that it is SNV's task to monitor the progress of the introduction of an organic label with the help of the overview of interventions as presented in this chapter.

The different steps are in chronological order. It is however difficult to determine a schedule for these interventions. Most steps are related to improving skills and knowledge, as a result the duration of the whole process is very much dependent upon the efforts of the participants. Therefore, any schedule should be made in consensus with all involved parties.

Since the main conclusions are very similar for Ha Giang and Lai Chau; the recommendations for the two case studies are combined. Separate remarks are placed at certain points where the recommendations between the two cases differ.

1. A producer group should be selected that has the most potential of being certified organic. At the start of the certification process, a limited farmer group should be selected by respectively HCTC and TUTC; these actors are in the best position to identify a potential farmer group. This farmer group should consist of farmers that • 1) are located as close to each other as possible, • 2) are within reasonable distance of a tea processing facility, and • 3) have a high share of income from tea. Only after successful organic certification is achieved, should expansion of the farmer group be considered. By this time the certified producer group should be experienced enough to decide on any expansion matters.

SNV should position itself as an advisor and controller of HCTC and TUTC, providing guidance upon request and by making sure that the three conditions for the farmer group are honoured.

Ha Giang: Solely HCTC has potential of being certified organic and should be the focal point of the certification process. Since HCTC does not own any tea farm land, independent farmers

should be involved through an ICS. Only farmers in the highland tea area should be considered, since they are de facto producing organic tea. The lowland area is an intensive agricultural area and should not be considered as a potential organic area. A farmer group from Cao Bo commune (Vi Xuyen district) is the best choice and will provide the biggest chance for initial success. However, currently HCTC has very weak relationships with the farmers that supply them. Often this relationship is indirect, with a collector or processor in between. An ICS absolutely requires a direct and strong relationship between the ICS staff and the farmers that are under its control. Achieving this will require a massive effort in improving this relationship and should be initiated and executed by HCTC.

Lai Chau: TUTC is the only legal entity that has any real potential of being certified organic and should be the focal point of the certification process. The other tea processors lack the capabilities, resources and relationships to strive for organic certification. In the time leading to organic certification, only worker farmers and farmers that have a contract with TUTC should be involved in the producer group. These farmers are only located in Tan Uyen district.

2. After the producer group has been selected, knowledge in the producer group and supporting parties on organic farming methods, technology, rules, certification methods and the organic market should be improved. In the current situation, knowledge on these matters is not beyond a very basic understanding of the organic concepts. Because of its international connections, SNV is in the best position to select an expert (from an organic certifying body that is only available outside Vietnam) that should be given the task of elaborating on above mentioned aspects to the producer group and the supporting parties. There are numerous organic certifying bodies throughout the Southeast Asian region. Bodies from Thailand, China, Japan and Korea should be considered for this task.

Senior staff should be assigned at HCTC and TUTC and SNV to become experts in the field of organic farming (e.g. fertilization techniques, pest management and site survey skills). Eventually this knowledge has to be spread down to the farmers through a training programme. It is essential that SNV also gains expert knowledge, since they desire to advise the producer group in further stages.

► **At this point a decision has to be taken on whether organic certification is actually desired in both provinces and by all parties, but especially by the producer group. This decision can only be made at this point, after expert knowledge on the subject is attained.**

3. An organic production site needs to be identified and documented. As soon as expert knowledge is attained by the producer group and the supporting parties, a potential organic area must be defined clearly and in detail by the producer group. This area should be as undisturbed as possible by crops that will not be certified as organic. Any disrupting crop should either: • 1) be surrounded by a sufficient buffer area, or • 2) be converted to organic farm land. SNV's role in this

process should be that of an advisor and controller. The supporting parties have the best knowledge of the production area and are thus in the best position to identify and document a site. The end-product of this intervention should be a detailed map of the future production site.

***Ha Giang:** The contamination threat from non-organic crops that are located within the potential organic tea area is very real in the highland region of Ha Giang, mostly in the form of chemically fertilized rice paddies and the irrigation channel system that feeds these. A sufficient buffer area has to be put in place surrounding these rice paddies and the irrigation channels must be modified in such a way that they do not flow through the organic area.*

***Lai Chau:** Since only TUTC and the farmers that supply them are considered potential for organic certification, only Tan Uyen district is considered for organic certification. However, the production site that will be certified cannot cover the whole district. A selection needs to be made.*

In Lai Chau two factors need to be taken into consideration: • 1) the contamination threat from non-organic crops and irrigation channels that are located within the potential organic tea area is very real in Lai Chau, and • 2) soil fertility should be sufficient to support organic farming methods and still be acceptably productive for the producer group.

4. Farmers need to be informed on: • 1) the concepts of organic farming, • 2) the benefits that come with it (increased income per unit of tea sold), • 3) the drawbacks of organic farming (investments and efforts) • 4) the envisioned layout of the system by the producer group and • 5) their expected contributions to the system. This activity is aimed at identifying which targeted farmers are interested in joining the organic production group. HCTC and TUTC should take the lead in organizing informative farmer group sessions. SNV should assist the TUTC and HCTC upon request or where SNV believes necessary. It is foreseen that especially HCTC could require some assistance since they have a much less developed relationship with their supplier farmers.

***Ha Giang:** Closely linked to supplier selection and their cultivation practices is the current tea quality at HCTC. In order to have access to the higher export market segment that is required when higher sales prices are desired, the product must be of high quality. Currently this is clearly not the case. The bottleneck in this process is the raw material. Farmers that supply HCTC generally pluck “3 leafs 1 bud” and “4 leafs 1 bud”, while “2 leafs 1 bud” is the international standard. HCTC offers a too low price to the farmers. Even though HCTC uses different prices for different qualities, the difference in price that HCTC offers for low quality and high quality is too small. This is reinforced by the tea processing cooperatives of Hoa An (in Ha Giang Town) and Fin Ho (in Thong Nguyen commune, Hoang Su Phi district) that successfully produce tea for a higher market segment.*

***Lai Chau:** Again, the researcher advises only to include worker farmers of and farmers that have a contract with TUTC because these already have a foundation on which to develop their skills further.*

5. Farmer and worker training programmes need to be developed. A structural training programme needs to be developed and should be aimed at enabling farmers and factory workers to produce tea in accordance with organic standards. HCTC and TUTC should respectively take the lead in this activity in Ha Giang and Lai Chau. In both provinces they should work together with DARD and the PPSD in order to benefit from their extensive experiences with farmer training programmes. SNV's role in this process should again be that of an advisor and controller. SNV should focus on the quality of the training programme and the skills and knowledge of the trainers rather than to be actively involved in the design of the programme or the actual training sessions.

Initial knowledge on the subject should be gained from working with organic certifying bodies or other organic service providers. The trainers from the producer group should receive their training from these parties. There are no certifying bodies active in Vietnam, thus they need to be contracted from abroad. SNV is in the best position to identify a suitable party for this training of trainers.

6. A sales channel needs to be selected and developed. Since the domestic market for organic products is almost non-existent, it needs to become clear to where the certified organic tea will be exported. The lack of a domestic market introduces an additional obstacle, predominantly in the form of foreign import laws. As discussed in chapter 3, the choice for a certain foreign market will have minor consequences for the rules that are applied in the certification scheme.

SNV should not be directly involved in this intervention. This intervention is an integral business decision by the producer group. However, SNV can advise the producer group upon request.

Ha Giang: Since HCTC produces both black and green tea, a choice needs to be made on what tea to produce for what market.

The main markets for organic green tea are in Japan, China and Taiwan. Taiwan will not accept organically certified tea from Vietnam. This leaves Japan and China as the best potential candidates for green tea. The traditional large and stable markets for organic black tea are Europe and the United States of America. The organic markets in Europe and the U.S. accounted for 97% of organic sales in 2006 and show the highest potential for organic black tea. Although the markets in other countries are growing, these two markets are still the largest. This suggests that targeting the markets in Europe (e.g. Great Britain, Germany and the Netherlands) and the U.S. has the biggest chance of success. It should be noted that consumers in Europe prefer tea bags above orthodox tea and consumers in the U.S. prefer iced tea products.

The next step would be to find a (preferably European or American domestic) export partner that is interested in bringing the tea to market. Direct sales in the targeted market are, at the

moment, beyond reach of HCTC, mostly due to the additional exporting laws and rules concerned with exporting foodstuffs to these markets.

***Lai Chau:** Since TUTC produces only green tea, and assuming that they will not change to any other tea type, the most important export markets are Japan, China and Taiwan. Taiwan will not accept organically certified tea from Vietnam. This leaves Japan and China as the best potential candidates.*

The next step would be to find a (preferably Japanese or Chinese domestic) export partner that is interested in bringing the tea to market. Direct sales in the targeted market are, at the moment, beyond reach of the producer group, mostly due to the additional exporting laws and rules concerned with exporting foodstuffs to these markets.

7. A traceable and isolated production chain needs to be set up that is controlled by an ICS. Currently, the traceability of the production chains at HCTC and TUTC are not up to the level that is required by organic standards. Control and production tracking systems need to be set up within the producer groups. The producer group should take the lead in this intervention.

In both cases, first priority should be to set up a production chain that is completely isolated from non-organic production chains: • 1) an organic nursery should be set up, • 2) farmers should solely grow organic crops taking in account all contamination factors (including not using manure from non-organic sources), • 3) transportation devices should be cleaned before handling organic products, • 4) a 100% dedicated tea processing facility should be assigned for processing the organic tea, and • 5) any transportation activities after the tea is fully processed (possibly done by a third party) should also be up to organic standards, meaning zero chance of contamination. Any third party in any other way involved in the value chain also needs to be certified by the certifying body.

After an isolated production line is set up, an ICS and traceability system should be set up. The ICS should control and guarantee that all farmers are producing in accordance with organic standards. The ICS should be able to prove this through a documentation system in which the farmers are directly involved. The traceability system is a documentation system and an extension of the ICS. It should be able to guarantee and prove beyond doubt that the products that reach the consumer are of organic origin.

SNV's role in this intervention is limited. Again, they should advise the producer groups upon request, but they should not have a dominant role in this intervention. A possible role for SNV here is to test the traceability of the production chain as an outsider before it is actually tested by an organic certifying body.

8. Organic production methods should be followed. At this point in time the potential organic production chains need to convert to 100% organic production

methods. From this moment onward the certifying body will start its checking activities and all the detailed rules of the importing country's organic standard and other sanitary and import laws need to be followed. The producer group should be the conversation partner of the certifying body. At the moment the certifying body is content with the performance of the production chains, the three year conversion period will start. TUTC and HCTC should consider offering farmers a minimum price for their organic produce to stimulate adherence to organic rules.

At this point the producer groups will furthermore be required to pay for the certification services of the certifying body. There is no fixed amount for this, but estimations are anywhere between US\$3,000 and US\$6,000 per year per certificate.

After the three year conversion period and after all involved actors are certified, organic certification is attained and products can be labelled and marketed as such. Organic standards need to be adhered to continuously and only then can the price premium be collected. Estimations of this price premium should be made in close deliberation with the foreign export partner since it depends completely on the perception of the consumer in the importing country.

After certification is attained, SNV should carefully monitor whether their ultimate goal of poverty reduction is achieved. There is a risk that a too larger part of the price premium is seized by HCTC and TUTC. SNV should stimulate an appropriate distribution of the premium amongst all members of the producer group.

***Ha Giang:** Due to the current de facto organic farming methods, during the conversion period, farmers in the organic group do not need to be financially supported because there will not be temporary declining yields. However, they do need a clear price incentive for their compliance to the ICS rules and their additional efforts.*

***Lai Chau:** The difference in farming techniques is the most notable change. Farmers need to stop any usage of banned substances. In this case this means they have to stop using chemical fertilizers, pesticides and herbicides, and switch to using holistic farming methods, allowed fertilisers, allowed organic pesticides and compost. The holistic approach prescribes that a natural balance (including pests and their natural enemies) of the farmland is the best guarantee for a healthy and productive harvest.*

During the conversion period, farmers in the organic group need to be financially supported due to the temporary declining yields and lack of a price premium. After a successful conversion period it is predicted that yields will return to the initial values and financial support can be withdrawn. In addition, during the three year conversion period, the Japanese and Chinese organic standards allow for labelling that will read similar to "This product is in transition to organic". During this period there might be a chance of attaining a modest price premium.

Having formulated the final recommendations of this research, the next chapter will reflect upon the research process and identify its achievements and limitations.

7. Conclusions and recommendations

This chapter compares the research outcomes with the objectives of this study. From this comparison conclusions are drawn as to the achievements and limitations of the research. Based on these conclusions, recommendations are made on how to interpret the outcomes of this research. Furthermore, potential future research is identified based on the limitations of the research. Finally, this chapter provides a personal reflection of the researcher on the chosen research approach and the research progress.

7.1 Conclusions

The objective of this research was to investigate the possibilities, within the capacity of SNV and its partners, for the introduction of either a GI for Snow Tea or an organic label for organic tea in order to increase the perceived quality of tea from Ha Giang and Lai Chau.

From the achieved research results it can be concluded that for both Ha Giang and Lai Chau **the successful introduction of a GI for Snow Tea is not feasible**. The dominant factor for this conclusion is one lacking and non-adaptable condition; Snow Tea farming is widespread throughout the whole of the northern tea growing area of Vietnam and the bordering area of China. An undeniable aspect of a GI is that it should be restricted to a geographical area from where a specific product is unique or that is the origin of the product, this not the case with Snow Tea from Ha Giang.

However, it can also be concluded that for both Ha Giang and Lai Chau **the successful introduction of an organic label for Snow Tea is possible**. In order for the introduction of an organic label to be successful, lacking necessary conditions need to be improved and certain favourable conditions need to be controlled. Chapter 6 provides a detailed framework of interventions for SNV and its partners that are required to successfully introduce an organic label in Ha Giang and Lai Chau.

7.2 Recommendations

This research provides a clear advice to SNV on which food label to introduce in Ha Giang and Lai Chau and provides a framework for the introduction of this organic label. Thus, in general it can be stated that this research objective has been met. Nevertheless, there are some limitations identifiable:

1. The time spent conducting the field research was limited. It proved to be a challenge to gather a representative data sample of the tea sectors in the two provinces over a time period of altogether six weeks. As a result, the strength of the generalization of actual conditions is not optimal. In order to improve this, a longer period in the field would have been desirable. Of course, time is a limiting factor in this decision. Additionally, the sheer size of the tea areas in the two provinces makes it debatable whether the generalization would have been significantly stronger if the time spent on field research is increased.

2. The researcher experienced some difficulties in projecting the envisioned interventions into the working methods of SNV and its partners. This was caused by the researcher's relative unfamiliarity with the working methods of SNV and even more so for SNV's partners. As a result there is some uncertainty to whether the proposed interventions are in line with SNV's approach. In turn, this might have a negative effect on the effectiveness of the interventions.
3. Although it is not explicitly mentioned as an objective, it is difficult to generalize the interventions to other provinces than Ha Giang and Lai Chau. There are very few detailed studies available on the Vietnamese tea sector on a province level. It is expected that the actual conditions differ between other tea producing provinces in the north of Vietnam since there were also major differences between Ha Giang and Lai Chau.

Following from these three limitations, the following recommendations can be made:

1. It is expected that there are areas within both provinces that are not fully aligned with the actual conditions as described in this thesis. In order to deal with this sub-optimal generalization of actual conditions, the producer group and the supporting parties should be cautious in selecting organic supply areas. Individual areas should be inspected before they are eligible for supplying the producer group with organic tea.
2. It is recommended that SNV should exert flexibility in executing and monitoring the proposed interventions. SNV should judge whether the proposed interventions are in line with its current working methods. If this is not the case, SNV might decide to either alter the intervention or review their current working methods. Additionally, the proposed interventions should be tested by reviewing the introduction process of the organic labels in Ha Giang and Lai Chau. Reviewing the introducing of the organic label will greatly enhance our knowledge as to what are vital elements within this process and increase our knowledge as to the required conditions. This will prove to be a big aid to similar projects.

At a more academic level the researcher suggests that more research is done into the global practice of food label introductions. More specifically the actual process of introduction of these labels is of interest. Although there is an enormous amount of cases available, there is a lack of documented experiences in this field. By increasing our knowledge of this process, a faster decision making process becomes available to parties searching for a way to increase the value of their food products through labelling and documented best practices will guide any introduction process.

3. Should SNV decide to introduce a food label for teas in other provinces, it is essential to first attain a complete overview of the actual conditions in that particular province. Ideally this should be done using the same methods and set of conditions as used for this research.

7.3 Reflection

The choice for a multiple case study approach has proven to be a suitable one for this action-oriented research. By reserving a generous amount of time for constructing a solid theoretical framework, the researcher was able to provide a well funded advice to SNV on which it could act immediately, thus emphasising the practical usefulness of this research.

In general, a focus on practical usefulness means a limited contribution to academic discussion. However, this research also provides a real contribution to the academic discussion of whether food labels (and especially GI's) are a suitable tool for rural development through poverty reduction by deriving a set of detailed and practical required conditions for the introduction of a GI or an organic label from a vast pool of academic literature on the subject. The fact that the researcher had to derive these conditions himself is a clear indication of the contribution to academic discussion.

This academic discussion is more vivid for GI's than for organic labels because GI's provide more mixed results than organic labels. However, the fact that in this case a GI does not contribute to its goal does not automatically mean that organic labels are superior to GI's. Rather, this research underpins that both organic labels and GI's are only suitable for attaining a price premium for food products when a set of conditions is met.

For the largest part, the research progress has been satisfactory. It was foreseen and scheduled that this research would cover a longer period than the prescribed five months for a Master Thesis. The main cause for this extended research period is the international aspect that requires more planning and preparation. The only notable setback was during the field research. On various occasions the researcher was denied access to certain regions by the local authorities. Non-Vietnamese persons are required to have written permission from the capable authorities to visit the region that includes the provinces of Ha Giang and Lai Chau. Miscommunication between various government bodies involved with this permission caused for some periods of inactivity for the research team. However, this problem was countered by scheduling buffers and flexible planning.

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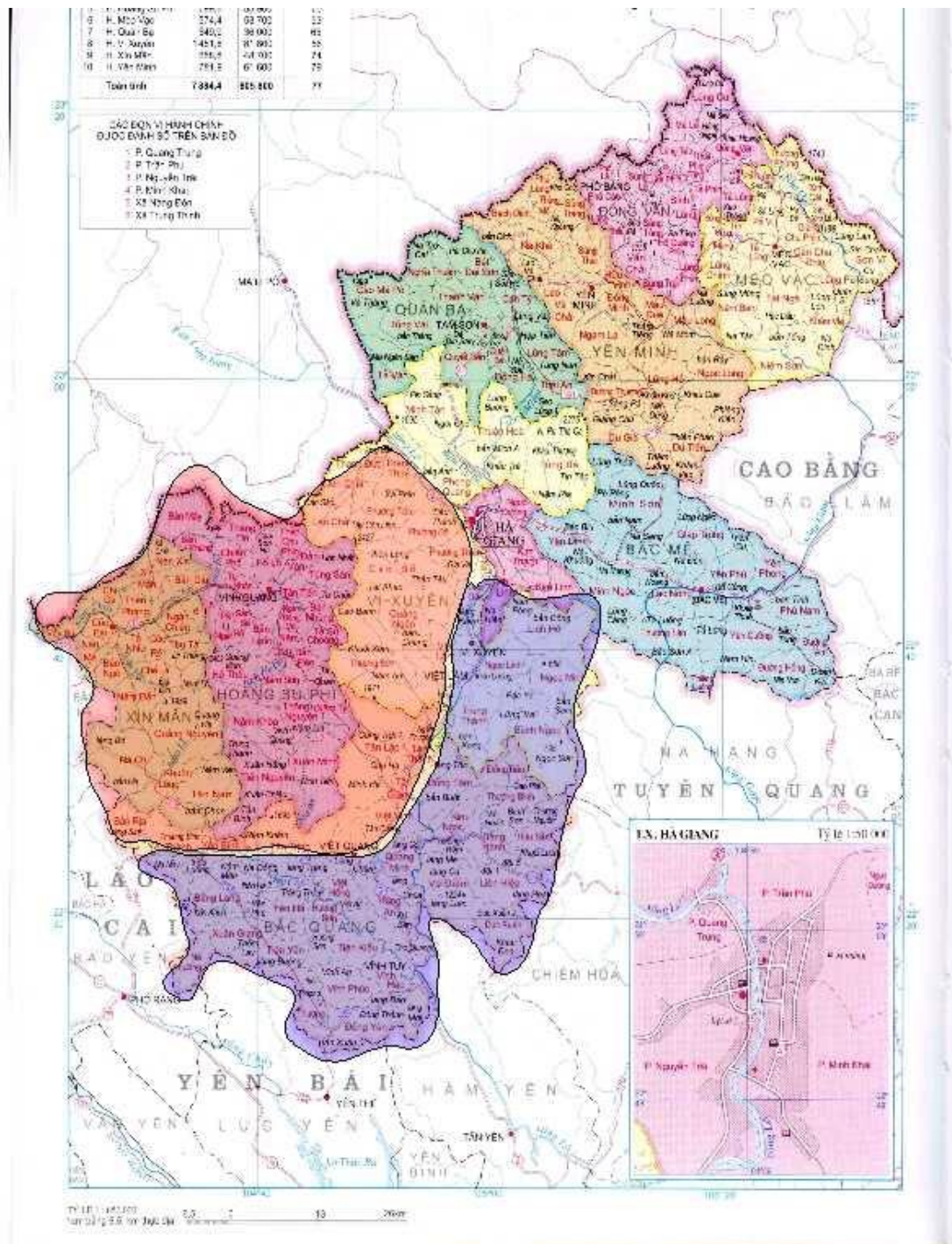
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Appendices

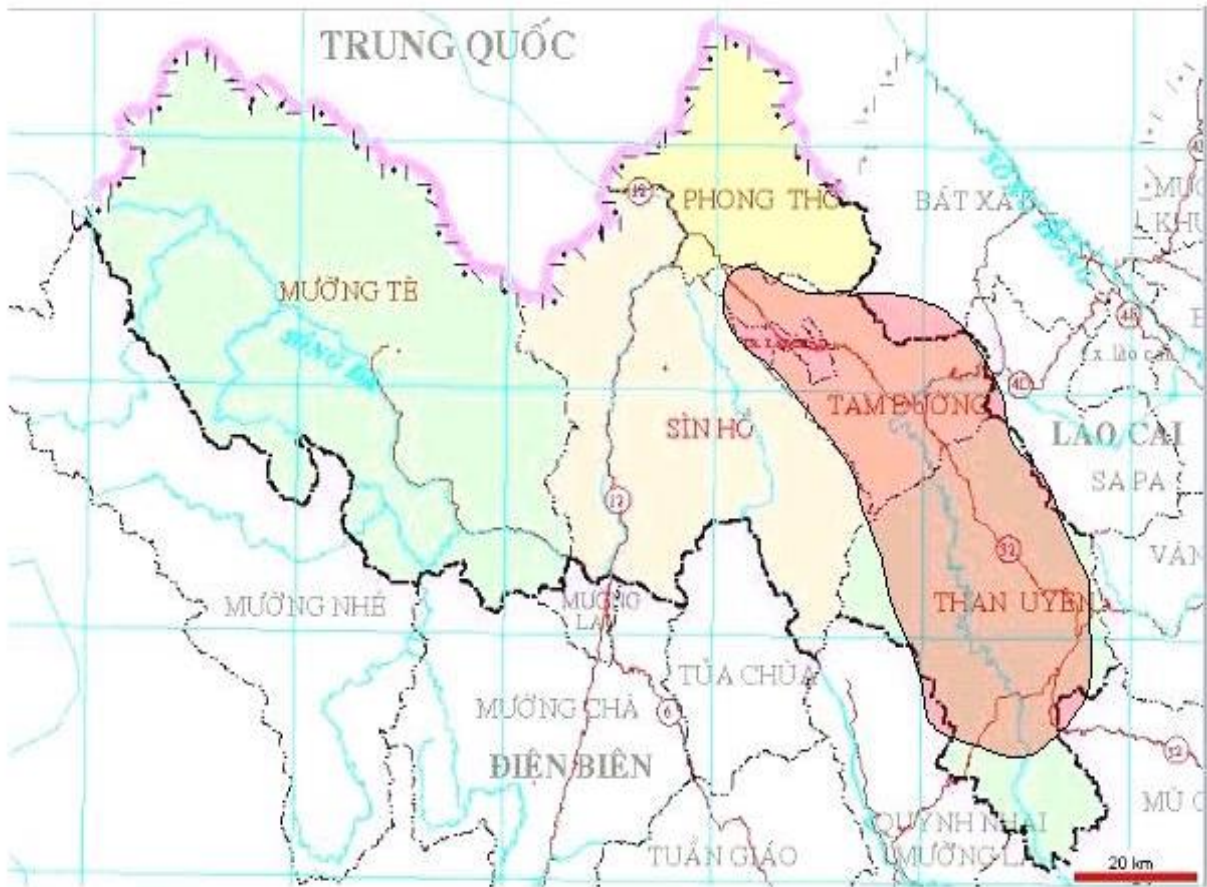
Appendix 1 - Overview tea area in Ha Giang



 = Highland tea area

 = Lowland tea area

Appendix 2 - Overview tea area in Lai Chau



= main tea cultivation area

Appendix 3 - Questionnaire

Private sector lead firm

Preliminary questions

- Do you know the meanings of “Geographical Indications” and “organic farming”?
 - If you were to produce organic tea, to which country/countries would you export this?
- From what districts are your tea supplies coming? Or, where are your supplier farmers located.

It has to be determined which farmers, other processors and traders are willing to participate

- Do you think your supplier farmers are interested in any of these labelling activities in the future with the help of you, SNV and RUDEC?
 - If not, are they interested when they are guaranteed a minimum price?
- Are you willing to play a central/coordinating role in this system?

Vertical relations in the tea value chain are reportedly purely on an economic basis. This has to be verified.

- Is there any cooperation between vertical actors in the tea sector in Ha Giang/Lai Chau other than on a purely economic basis?
- How would you describe the vertical relations in the tea sector in Ha Giang/Lai Chau? And more importantly, why this description?
- Do you think these vertical relations have the potential for maintaining a GI or an organic label?

There are farmer cooperatives/groups in Ha Giang/Lai Chau, however their effectiveness is unknown. Farmer cooperation outside cooperatives/groups is also unknown.

- What farmer types supply you? (unlinked, cooperative, contract or worker) And in what ratio/distribution?
- How would you describe the horizontal relations amongst tea farmers that supply you? And more importantly, why this description?
 - And for tea farmers in general from Ha Giang/Lai Chau?
- In what way do you come into contact with farmer cooperatives/groups?
- How well are these cooperatives/groups organised?
- Do you think that these farmer cooperatives/groups have the potential for maintaining a GI or an organic label?
- Is there any cooperation between horizontal actors in the tea sector in Ha Giang/Lai Chau other than between farmers?
- How would you describe the horizontal relations in the tea sector in Ha Giang/Lai Chau other than between farmers? And more importantly, why this description?

- Do you think these horizontal relations have the potential for maintaining a GI or an organic label?

It has to be determined whether farmer training and inspection schedules have been developed.

- Are farmers skilled enough to supply you with the quality that you desire?
- Are these farmers receiving training or do they require additional training?
 - If so, what is your current farmer training programme?
 - (observation) If so, can we see training material (or observe a training session)?
- Do you, or should you, pay inspection visits to the farmers that supply you?
 - If so, what is your current farmer inspection programme?
 - (observation) If so, can we see your farmer visit/inspection schedules?
 - (observation) If so, can we join a farmer visit/inspection?

Farmer skills on documenting and record keeping and literacy rate are unknown.

- Do you know of any record keeping activities by farmers from Ha Giang/Lai Chau in general and specifically that supply you?
- Can you give us an indication of farmer literacy rate in Ha Giang/Lai Chau?

Farmer skills on contamination control are unknown.

- Are you aware of the phenomenon “pesticide contamination” in the context of tea farming?
- If any, what current practices do farmers that supply you, and in general in Ha Giang/Lai Chau, have on contamination control?

It is unknown if soil fertility is sufficient and a steady supply of organic compost material is available to produce organic tea.

- How would you describe soil fertility in Ha Giang/Lai Chau province?
- Is the soil fertility sufficient to produce organic tea?
- Do your farmer suppliers make use of compost?
- Is there enough compost material available to the farmers (organic waste and animal manure)?

It has to be determined what marketing, technical, legal, and administrative capabilities are present in the producer group.

- (Only for HCTC) You are selling 10% of your production “customer ready”. What does this mean?
- Do you have experiences with branding or trademarks?
- What promotional activities do you employ or have you employed?
- What are your experiences with promoting your tea?
- What legal experiences and capabilities do you have?
- (observation) Is your production process documented? Can we see some examples?
- What administrative experiences and capabilities do you have?

There are indications of a structural lack of technical personnel that have specific knowledge on organic farming and production. Organizational skills on: site survey, assessment of production and producers, supply chain actor selection and production technology selection have to be determined.

- How do you currently select farmers and tea leaf collectors in your supply chain
- Are there any criteria on: farmers, farmland, production techniques, etcetera...?
 - (observation) If so, can we see these criteria (in action)?

Management of input supply and post production activities have to be determined.

- Do you have any system in place on tracking goods starting from when the tea leaves the farm up to the delivery of finished goods to the customer?
- (observation) Could we have access to documentation on traceability of inputs and outputs? (intake reports, batch reports, finished goods reports)
- (observation) Can we observe the delivery process of tea to your company and all following activities up to where the tea leaves the factory?

Organizational skills on handling, packaging and storing activities have to be determined.

- Can you describe to us your handling, packaging and storing activities after completion of production?
- (observation) Can we have insight into your handling, packaging and storing administration system?

It is unknown if farmers will receive financial support during the conversion.

- Are you willing to support farmers financially during the conversion period? During this period, farmers will likely suffer from temporary declining yields.

There are initial indications of a domestic market for high quality, GI protected tea, although there is no market research to back this up.

- How would you describe the current position of Snow Tea from Ha Giang/Lai Chau in the market?
- How would you describe the future for Snow Tea from Ha Giang/Lai Chau in the market?
- Do you believe this (non-)popularity is generic for Snow Tea from all over Vietnam or specifically for Snow Tea from Ha Giang/Lai Chau?
- (observation) Could we have access to your historical and predicted sales figures of Snow Tea from Ha Giang/Lai Chau?

Collective traditions and collective decision-making related to Snow Tea production have yet to be identified.

- Are there identifiable traditions concerned with the production of Snow Tea from Ha Giang/Lai Chau?
- Can you provide us information on the production process of Snow Tea from

Ha Giang/Lai Chau?

- (observation) Can we see the production process of Snow Tea?
- Is the production process part of a collective or are there variations throughout Ha Giang/Lai Chau province?

It has to be determined if a marketing effort has already been executed to promote Snow Tea from Ha Giang/Lai Chau.

- Have you done any active promotion of Snow Tea?
 - If so, what?
 - If not, are you planning to do so?

Supermarkets and selected retail network access is currently unknown.

- In the past, have you sold to supermarkets?
- Are you currently selling to supermarkets?
 - If not, are you willing to sell to supermarkets?
 - If so, are you aware of product requirements when selling to super markets? (e.g. bar codes & nutritional facts) And do you comply with these requirements?

It is unknown if farmers are able to obtain a minimum price for their products.

- Would you consider paying farmers a fixed above average minimum price if they supply you with organic or GI protected Snow Tea?

Tea farmers

Vertical relations in the tea value chain are reportedly purely on an economic basis. This has to be verified.

- Is there any cooperation between vertical actors (farmers, collectors, processors and traders) in the tea sector in Ha Giang/Lai Chau other than on a purely economic basis?
 - If so, what?
- How would you describe the vertical relations in the tea sector in Ha Giang/Lai Chau? And more importantly, why this description?

There are farmer cooperatives/groups in Ha Giang/Lai Chau, however their effectiveness is unknown. Farmer cooperation outside cooperatives/groups is also reportedly weak.

- Is there any cooperation between you and your fellow tea farmers?
 - If so, what?
- What is your opinion on the tea farmer cooperatives/groups in your district?
 - Why don't/did you join a cooperative?

It has to be determined which farmers, other processors and traders are willing to participate.

- Do you know the meanings of “Geographical Indications” and “organic farming”? (pro's and con's)

- If so, are you interested in any of these labelling activities in the future with the help of Hung Cuong, SNV and RUDEC?
- If not, are you interested when you are guaranteed a minimum price?
- If not, are you willing to invest time and effort into education, accept some rules as to how to grow tea; with the real chance of attaining price premiums of around 50%?
- If not, are you member interested when you are guaranteed a minimum price?

It is unknown if farmers understand the difference between IPM farming and organic farming.

- Are you familiar with the concepts of IPM and organic farming?
- Can you explain the main difference between IPM and organic farming? (zero tolerance of synthetic and chemical substances)

It has to be determined what marketing, technical, legal, and administrative capabilities are present in the producer group.

- (observation) Is the production process documented? Can I see examples?
- Do you have experiences with branding or trademarks?

It has to be determined whether farmer training and inspection schedules have been developed.

- How often do you receive training?
- What topics are part of the training?
- What is your opinion on these training sessions?
- What is your most important supply of information for farming activities?

Management of input supply and post production activities have to be determined.

- Do you have any administrative system in place on linking plucked tea leaves with the specific farmland that they come from?
- Do you have any administrative system in place on keeping track of inputs (fertilizers, pesticides, etcetera)?
- (observation) Could we have access to documentation on traceability of inputs (fertilizers, pesticides, etcetera) and outputs (yield records)?

Farmer skills on documenting and record keeping and literacy rate are unknown.

- Can you read and write?
 - If not, can anyone in your household read and write?
- What is the literacy rate of your colleague farmers?

Farmers are scattered in Ha Giang/Lai Chau. It has to be determined what the risks for outside contaminations are.

- What possible outside factors can have a negative effect on your farm lands? (e.g. pollution, pesticide residues, pests, plant diseases)
- What do you do to reduce the risk of contamination?
- (observation) Can you show us your farmland?

Farmer skills on post harvest practices are unknown.

- Can you describe to us your activities after the tea is plucked?
- Can you describe to us your storage activities?
- Is there any documentation involved with these activities?
- (observation) Can you demonstrate these activities?

It is unknown if farmers use organic propagation material.

- Can you describe the method of planting new tea bushes?
- (observation) Can you demonstrate these activities?

It is unknown if farmers maintain soil fertility using only organic materials.

- Can you describe the method of maintaining soil fertility?
 - For land preparation?
 - For irrigation?
 - Do you add any additional substances?
- (observation) Can we see the situations on location?

It is unknown if farmers make use of chemical substances like pesticides.

- What do you do to keep your tea plants healthy?
- What will you do if you find harmful insects, fungus or a harmful disease damaging your tea plants?
- Do you make any use of pesticides or any other chemical substances?
- (observation) Can we see the situations on location?

Farmer willingness to solely produce organic tea has to be determined.

- If you consider producing organically, are you willing to solely produce organic tea?

Collective traditions and collective decision-making related to Snow Tea production have yet to be identified.

- Do farmers produce Snow Tea the same way as previous generations?
- Can you provide us information on the production process of Snow Tea?
- Is the production process part of a collective or are there variations throughout Ha Giang/Lai Chau province?
- Do you consider Snow Tea from Ha Giang/Lai Chau unique in Vietnam, or are there any similar teas?
- (observation) Can we see the situation on location?

It is unknown if soil fertility is sufficient and a steady supply of organic compost material is available to produce organic tea.

- How would you value soil fertility in your farming area?
- Do you make use of compost?
- Is there enough compost material available?
- (observation) Can we see the situations on location?

Tea collectors

Vertical relations in the tea value chain are reportedly purely on an economic basis. This has to be verified.

- Is there any cooperation between vertical actors (farmers, collectors, processors and traders) in the tea sector in Ha Giang/Lai Chau other than on a purely economic basis?
 - If so, what?
- How would you describe the vertical relations in the tea sector in Ha Giang/Lai Chau? And more importantly, why this description?

There are farmer cooperatives/groups in Ha Giang/Lai Chau, however their effectiveness is unknown. Farmer cooperation outside cooperatives/groups is also unknown.

- How would you describe the horizontal relations amongst tea farmers that supply you? (strong or weak?) And more importantly, why this description?
 - And for tea farmers in general from Ha Giang/Lai Chau?
- In what way do you come into contact with farmer cooperatives/groups?
- How well are these cooperatives/groups organised?
- Is there any cooperation between you and your fellow tea leaf collectors?

Management of input supply and post production activities have to be determined.

- Do you have an administration system in place that traces the path between farmer and processor?
 - If not, do the producers you sell tea to know from what farmers it comes?
 - (observation) If so, could we have access to documentation on traceability of tea leaves?
- (observation) Can we observe your tea leaf transactions with farmers and with the producers you sell to?

Tea farmer cooperatives / IPM and organic groups

There are farmer cooperatives/groups in Ha Giang/Lai Chau, however their effectiveness is unknown.

Can you give us some general information about your cooperative / group?

- How long has this cooperative / group been in existence?
- How often do your members meet?
- Does the cooperative / group negotiate sales prices with processors?
- Does the cooperative / group act as a spokesperson on any other occasions?
- Can you tell us about your success/effectiveness as a cooperative / group?
- Are your members active or passive? And in what ratio?
- Have your members had training on tea farming?
- Do your members produce according to any guidelines or rules?
- (observation) Can you provide us with or can we see: minutes of meetings, the

- member administration, cooperative procedures?
- Do your members pay a membership fee?

It has to be determined which farmers, other processors and traders are willing to participate.

- Do you know the meanings of “Geographical Indications” and “organic farming”?
 - If so, do you think your members are interested in any of these labelling activities in the future with the help of HCTC/TUTC and SNV?
 - If not, are your members interested if they will receive a minimum price?
 - If not, are your members willing to invest time and effort into education, accept some rules as to how to grow tea. With the real chance of attaining price premiums of around 50%?
- Are you willing to play a central/coordinating role in this system?

It is unknown if farmers understand the difference between IPM farming and organic farming.

- Are your members familiar with the concepts of IPM and organic farming?
- Can you explain the main difference between IPM and organic farming?

It has to be determined what marketing, technical, legal, and administrative capabilities are present in the producer group.

- (observation) Is the production process of your members documented? Can I see some examples?
- Do you have experiences with branding or trademarks?

It has to be determined whether farmer training and inspection schedules have been developed.

- What is your current policy on farmer training?
- How often do your members receive training?
- What topics are part of the training?
- (observation) Can we see training material or observe a training session?

Management of input supplies and post production activities have to be determined.

- Do your member farmers have any administrative system in place on linking plucked tea leaves with the specific farmland that they come from?
- Do your member farmers have any administrative system in place on keeping track of inputs (fertilizers, pesticides, etcetera)?
- (observation) Could we have access to documentation on traceability of inputs (fertilizers, pesticides, etcetera) and outputs (yield records)?

Farmer skills on documenting and record keeping and literacy rate are unknown.

- If any, what other documentation systems or records do your members use?
- What is the literacy rate of your members?

Farmers are scattered in Ha Giang/Lai Chau. It has to be determined what the risks for outside contaminations are.

- What possible outside factors can have a negative effect on your members' farm lands? (e.g. pollution, pesticide residues, pests, plant diseases)
- What activities do your members use to reduce the risk of contamination?
- (observation) Can we see the situations on location?

Farmer skills on post harvest practices are unknown.

- Can you describe to us your members' activities, after the tea is plucked?
- Can you describe to us your members' storing activities?
- Is there any documentation involved with these activities?
- (observation) Can we see the situations on location?

It is unknown if funds are available for direct certification costs.

- Are your members, or the cooperative, willing and able to partially fund the certification costs? (increase farmer or farmer participation)
- Can we have an indication of the funds available to your members and to the cooperative/group?

It is unknown if farmers use organic propagation material.

- Can you describe the method of planting new tea bushes by your members?
- (observation) Can we see the situations on location?

It is unknown if farmers maintain soil fertility using only organic materials.

- Can you describe the method of maintaining soil fertility by your members?
 - Of land preparation?
 - Of irrigation?
 - Are there any added substances?
 - (observation) Can we see the situations on location?
 -

It is unknown if farmers make use of chemical substances like pesticides.

- What do your members do to keep their tea plants healthy?
- What will a member of your cooperative do if he finds harmful insects, fungus or a harmful disease damaging his tea plants?
- Do your members make any use of pesticides or other chemical substances?
 - (observation) Can we see the situations on location?

Farmer willingness to solely produce organic tea has to be determined.

- If a farmer considers producing organically, do you believe your members are willing to solely produce organic tea?

It is unknown if farmer organizations receive capital aid and farmer training.

- Does your cooperative/group receive any capital aid or farmer training
- If so:
 - How much capital aid / what training?
 - From whom?

- Do your members consider this beneficial to their development?
- If not, would your members consider this beneficial to their development?

Collective traditions and collective decision-making related to Snow Tea production have yet to be identified.

- Do Snow Tea farmers produce Snow Tea the same way as previous generations?
- Can you provide us information on the production process of Snow Tea?
- Is the production process part of a collective or are there variations throughout Ha Giang/Lai Chau province?
- Do you consider Snow Tea from Ha Giang/Lai Chau unique in Vietnam, or are there any similar teas?
- (observation) Can we see the situation on location?

It is unknown if soil fertility is sufficient and a steady supply of organic compost material is available to produce organic tea.

- How would you value soil fertility in your farming area?
- Do your member farmers make use of compost?
- Is there enough compost material available to the farmers?
- (observation) Can we see the situations on location?

SNV

Collective traditions and collective decision-making related to Snow Tea production have yet to be identified.

- Can you provide us information on the history of Snow Tea from Ha Giang/Lai Chau?
- Are there identifiable traditions concerned with production of Snow Tea from Ha Giang/Lai Chau?
- Can you provide us information on the production process of Snow Tea from Ha Giang/Lai Chau?
- Is the production process part of a collective or are there variations throughout Ha Giang/Lai Chau province?
- Do you consider Snow Tea from Ha Giang/Lai Chau unique in Vietnam, or are there any similar teas?

Vertical relations in the tea value chain are reportedly purely on an economic basis. This has to be verified.

- Is there any cooperation between vertical actors in the tea sector in Ha Giang/Lai Chau other than on a purely economic basis?
- How would you describe the vertical relations in the tea sector in Ha Giang/Lai Chau? And more importantly, why this description?
- Do you think these vertical relations have the potential for maintaining a GI or an organic label?

There are farmer cooperatives/groups in Ha Giang/Lai Chau, however their effectiveness is unknown. Farmer cooperation outside this is also unknown.

- How would SNV describe the activities and effectiveness of the farmer cooperatives/groups in Ha Giang/Lai Chau?
- Does SNV think that these farmer cooperatives/groups have the potential for maintaining a GI or an organic label?
- Is there any cooperation between horizontal actors in the tea sector in Ha Giang/Lai Chau other than between farmers?
- How would you describe the horizontal relations in the tea sector in Ha Giang/Lai Chau other than between farmers? And more importantly, why this description?
- Do you think these horizontal relations have the potential for maintaining a GI or an organic label?

It has to be determined what marketing, technical, legal, and administrative capabilities are present in the producer group.

- What are SNV's experiences and capabilities with promotional efforts in the tea sector?
- What are SNV's experiences and capabilities with production process documentation? Can I see some examples?
- What are SNV's experiences and capabilities with branding?
- What legal capacities does SNV have?

Farmer skills on documenting and record keeping, as well as farmer literacy rate are unknown.

- What record keeping activities are tea farmers from Ha Giang/Lai Chau involved with?
- Can you give us an indication of farmer literacy rate in Ha Giang/Lai Chau?

It is unknown if soil fertility is sufficient and a steady supply of organic compost material is available to produce organic tea.

- How would you describe soil fertility in Ha Giang/Lai Chau province?
- Do farmers make use of compost?
- Is there enough compost material available to the farmers?

There are indications of a structural lack of technical personnel that have specific knowledge on organic farming and production. Organizational skills on: site survey, assessment of production and producers, supply chain actor selection and production technology selection have to be determined.

- What skills does SNV have on the technical assessment of:
 - individual tea farmers (current skills and potential)?
 - tea sites (strengths and weaknesses of location)?
 - tea production processes?
- Is SNV willing and able to transfer these skills to a body within the potential certified production chain?
 - If so, how would you prefer to transfer these skills?

Organizational form design and ICS manual design skills have to be determined.

- Does SNV have experiences with organizational form designs in a similar

context to this research?

- Can I see some examples?

Organizational skills on preparation of training material have to be determined.

- Does SNV have skills on the preparation of training material for tea farmers?
- (observation) Could we have access to some of this material?

It is unknown if funds are available for direct certification costs.

- Is SNV able and willing to provide funds for the direct certification costs?

It is unknown if farmers will receive financial support during the conversion.

- Are you willing to support farmers financially during the conversion period?
During this period farmers will likely suffer from temporary declining yields.

It is unknown if farmers are able to get a minimum price for their produce.

- Would SNV consider contributing to a fixed, above average, minimum price for farmers if they produce organic or GI protected tea?

Local authorities

The public authority should support the introduction of the GI protected product.

- What do you think is the best way to develop the tea sector in your province?
- What is your opinion on the labelling of food products?
- Do you know the meanings of “Geographical Indications” and “organic farming”?
- Do you think these labels are beneficial for the development of the tea sector in your province?
- What role do you see for yourself?
- Are you willing and able to play an active supporting role in this system?

All actors should have the same goal for the GI.

- If a GI would be set up with your help, what are your goals for this label?
 - How are these goals related to the development of the tea sector at large?

It has to be determined what marketing, technical, legal, and administrative capabilities are present in the producer group.

- What are your experiences and capabilities with promotional efforts in the tea sector?
- What are your experiences and capabilities with production process documentation? Can I see some examples?
- What are your experiences and capabilities with branding or trademark management?
- What legal capacities do you have?

There are indications of a structural lack of technical personnel that have specific knowledge on organic farming and production. Organizational skills on: site

survey, assessment of production and producers, supply chain actor selection and production technology selection have to be determined.

- What skills do you have on the technical assessment of:
 - individual tea farmers?
 - tea sites (strengths and weaknesses of location)?
 - tea production processes?
- Are you willing and able to transfer these skills to a body within the potential certified production chain?
 - If so, how would you prefer to transfer these skills?

Organizational skills on preparation of training material have to be determined.

- Do you have skills on the preparation of training material for tea farmers?
- (observation) Could we have access to some of this material?

It is unknown if funds are available for direct certification costs.

- Are you able and willing to provide funds for the direct certification costs?

It is unknown if farmers will receive financial support during the conversion.

- Are you willing to support farmers financially during the conversion period? During this period farmers will likely suffer from temporary declining yields. (exact support is yet to be determined)

Small household processors

It has to be determined which farmers, processors and traders want to participate.

- Do you know the meanings of “Geographical Indications” and “organic farming”?
 - If so, are you interested in any of these labelling activities in the future with the help of HCTC/TUTC and SNV?
 - If not, are you interested with a guaranteed a minimum price?
 - If not, are you willing to invest time and effort into education, accept some rules as to how to grow tea; with the real chance of attaining price premiums of around 50%?
- Are you, willing and capable to have a coordinating role in this system? You will have to coordinate and control the farmers that supply you.

It is unknown if farmers understand the difference between IPM farming and organic farming.

- Are you familiar with the concepts of IPM and organic farming?
- Can you explain the main difference between IPM and organic farming?

Vertical relations in the tea value chain are reportedly purely on an economic basis. This has to be verified.

- Is there any cooperation between vertical actors in the tea sector in Ha Giang/Lai Chau other than on a purely economic basis?
- How would you describe the vertical relations in the tea sector in Ha

Giang/Lai Chau? And more importantly, why this description?

- Do you think these vertical relations have the potential for maintaining a GI or an organic label?

There are farmer cooperatives/groups in Ha Giang/Lai Chau, however their effectiveness is unknown.

- What farmer types supply you? (unlinked, cooperative, contract or worker) And in what ratio/distribution?
- How would you describe the horizontal relations amongst tea farmers that supply you? And more importantly, why this description?
 - And for tea farmers in general from Ha Giang/Lai Chau?
- In what way do you come into contact with farmer cooperatives/groups?
- How well are these cooperatives/groups organised?
- Do you think that these farmer cooperatives/groups have the potential for maintaining a GI or an organic label?
- Is there any cooperation between horizontal actors in the tea sector in Ha Giang/Lai Chau other than between farmers?
- How would you describe the horizontal relations in the tea sector in Ha Giang/Lai Chau other than between farmers? And more importantly, why this description?
- Do you think these horizontal relations have the potential for maintaining a GI or an organic label?

It has to be determined if training and inspection schedules have been developed.

- Are farmers skilled enough to supply you with the quality that you desire?
- Are these farmers receiving training or do they require additional training?
- Do you, or should you, pay inspection visits to the farmers that supply you?
 - If so, what is your current farmer inspection programme?
 - (observation) If so, can we see your farmer visit/inspection schedules?
 - (observation) If so, can we join a farmer visit/inspection?

Farmer skills on documenting and record keeping and literacy rate are unknown.

- Do you know of any record keeping activities by farmers from Ha Giang/Lai Chau in general and specifically that supply you?
- Can you give us an indication of farmer literacy rate in Ha Giang/Lai Chau?

Farmer skills on contamination control are unknown.

- Are you aware of the phenomenon “pesticide contamination” in the context of tea farming?
- If any, what current practices do farmers that supply you, and in general in Ha Giang/Lai Chau, have on contamination control?

It is unknown if soil fertility is sufficient and a steady supply of organic compost material is available to produce organic tea.

- How would you describe soil fertility in Ha Giang/Lai Chau province?
- Is the soil fertility sufficient to produce organic tea?
- Do your farmer suppliers make use of compost?

- Is there enough compost material available to the farmers?

It has to be determined what marketing, technical, legal, and administrative capabilities are present in the producer group.

- Do you have experiences with branding or trademarks?
- What promotional activities have you employed in the past?
- What are your experiences with promoting your tea?
- What legal experiences and capabilities do you have?
- Is your production process documented? Can we see some examples?
- What administrative experiences and capabilities do you have?

There are indications of a structural lack of technical personnel that have specific knowledge on organic farming and production. Organizational skills on: site survey, assessment of production and producers, supply chain actor selection and production technology selection have to be determined.

- How do you currently select farmers and tea leaf collectors?
- Are there any criteria on: farmers, farmland and production techniques?

Management of input supply and post production activities have to be determined.

- Do you have any system in place on tracking goods starting from when the tea leaves the farm up to the delivery of finished goods to the customer?
- (observation) Could we have access to documentation on traceability of inputs and outputs? (intake reports, batch reports, finished goods reports)
- (observation) Can we observe the delivery process of tea to your company and all following activities up to where the tea leaves the factory?

Organizational skills on handling, packaging and storing activities have to be determined.

- Can you describe to us your handling, packaging and storing activities after completion of production?
- (observation) Can we have insight into your handling, packaging and storing administration system?

It is unknown if farmers will receive financial support during the conversion.

- Are you willing to support farmers financially during the conversion period? During this period, farmers will likely suffer from temporary declining yields.

It is unknown if farmers are able to get a minimum price for their produce.

- Would you consider paying farmers a fixed above average minimum price if they supply you with organic or GI protected Snow Tea?

Appendix 4 – Full overview of actual conditions in Ha Giang province

The Roman numerals in this chapter correspond with Roman numerals from the required conditions from chapter 3 of this thesis. The conditions set in the **grey background** are **non-adaptable conditions** and the conditions lacking this background are **adaptable conditions**. The following symbols are used to categorize the values of the actual conditions:

√	favourable condition
!	favourable condition but requires attention
X	lacking condition

Shared actual conditions

Necessary conditions

- I. √ - There are indications of information asymmetry in the Vietnamese domestic food market at large.
- II. X - Vertical relationships in all 4 visited districts are mostly on an economic basis. HCTC receives supplies from independent contracted factories (which HCTC refers to as “satellite factories”), contracted collectors, contracted chairmen of tea cultivating villages and collectors and farmers without a contract. Approximately 2/3 of all input is supplied by contracted parties.

The only strong relationship is between HCTC and the “satellite factories”. Vertical relationships in the production chain that includes small household processors and small collectors are considered to be the weakest.

Horizontal relationships are considered weak; the maximum cooperation between any of the actors on a horizontal level is labour exchange between farmers. All this is reinforced by the insights from the overview of the tea sector.
- III. X -The Department of Agricultural and Rural Development (DARD) is the main facilitator of training sessions for farmers in Ha Giang. Reportedly, DARD has over 1000 staff that can perform training session. However, the most intensive training programme encountered in the field is a once per year general training course that focuses on many crops. Furthermore, more than half of the interviewed farmers indicated that they have not received any training at all.

Farmer inspections are carried out in an unstructured manner by HCTC factory managers.

Conducive conditions

- IV. ! - Overall we have found capable and willing persons at every crucial actor in the tea value chain in Ha Giang, including HCTC, local authorities and

collectors. Farmers have indicated that they require “payment according to performance” if they cooperate with any system that prescribes specific farming methods. That farmers are willing to join such a system is proven by the tea processing cooperatives in Thong Nguyen and Ha Giang Town that prescribe farming methods to the farmers that supply them.

- V. X - There are no farmer organizations capable enough to coordinate the introduction of a GI or organic label.
- VI. √ - HCTC has indicated that they are willing to guarantee farmers a minimum price, as long as the introduced label provides a sufficient premium price.

Actual conditions for Geographical Indications

Necessary conditions

- I. ! - HCTC has received some attention from potential customers from Japan, Germany and India. They have conveyed their interest in purchasing a tea product of high quality and clear origin from the highland Snow Tea area. It is however uncertain if this interest is based on the characteristics on which the GI will be based or because of another reason (e.g. organic cultivation or a relatively low price). Furthermore, it is uncertain if this interest will develop into an actual demand for high quality tea from Ha Giang. There are indications that the higher level Chinese demand is based upon the organic aspect of the Snow Tea in the highland region of Ha Giang.
- II. ! - The Vietnamese intellectual property law provides GI protection. However, the correct functioning of this law is not yet proven.
- III. √ - Recently the Department of Science and Technology in Ha Giang has proposed three products that are considered to be developed into GI protected products. Of these three proposed products, two products are tea. This is a clear indication of local authority support to the introduction of a GI.
- IV. √ - The best Snow Tea is usually allocated at the height of 1000 to 1600 m above sea level. The temperature difference between day and night is, with a value of 10⁰ C to 20⁰ C, very high. These conditions give the tea from the highland area of Ha Giang a characteristic taste.

In addition, nearly 100% of the Snow Tea in the highland area is cultivated without (chemical) fertilizer and pesticides, furthermore farmers only prune the trees for cultivation once a year, resulting in quite tall and large tea trees.
- V. X - Snow Tea farming is widespread throughout the whole of the northern tea growing area of Vietnam and the bordering area of China. An undeniable aspect of a GI is that it should be restricted to a geographical area from where a specific product is unique or that is the origin of the product, this not the case with Snow Tea from Ha Giang.
- VI. √ - Collective traditions can be identified in the form of the tea harvesting method. Farmers harvest tea during 3 to 4 periods per year, each period lasts

between 15 to 25 days. Normally, the first period begins in March according to the lunar calendar and this is considered as the crop with highest quality.

Due to the lack of pruning and also depending on the height of the tree, during the first harvest of the year farmers cut down branches from the tea tree and pluck the leaves from these branches that have fallen to the ground. For all consecutive harvests, farmers climb the tea tree to pluck leaves. This traditional tea harvesting method could not be traced back in time by any of the interviewed farmers, but it can be safely assumed that this tradition dates back centuries.

There is no organization or association of tea producers; therefore, it is difficult to define collective traditions and collective decision-making.

- VII. X - Technical, legal, and administrative capabilities are present within HCTC. The company possesses such certificates as ISO 9001 - 2000 and HACCP to demonstrate their capabilities. However, marketing capabilities are not present in the producer group or the supporting parties and should be developed or sourced from a third party.
- VIII. X - Common standards, rules, coordination, control and exclusion devices have not yet been developed since no GI is currently in place.
- IX. X - An intensive, professional and coordinated marketing effort has not yet been executed for Snow Tea from Ha Giang. The majority of successful GI's around the world achieved their success through an intensive and coordinated marketing effort. Up until now no party in the Ha Giang tea sector has executed any marketing effort beyond irregular attendance of trade fairs. This means that there is no foundation on which to develop this marketing effort. Since there is no direct marketing skill present in the producer group or with the supporting parties, possibly outside parties have to be brought in. In any circumstances this will be a costly activity with no guarantee of success.

Conducive conditions

- X. X - There might be friction between the goals of SNV (poverty reduction) and the goals of the private sector parties (striving towards ever increasing profit).
- XI. X - With 4316 tourists from Europe and the United States of America, and 45129 Chinese tourists in 2008, Ha Giang ranks second among the 15 northern mountainous provinces. However, Ha Giang province still has a minor tourist industry.
- XII. X - Currently all of HCTC's output is sold unlabelled and in bulk. Furthermore, medium sized processors and small household processors also sell their tea unlabelled and in bulk on the domestic market and to Chinese traders.

Actual conditions for organic labels

Necessary conditions

- I. ✓ - The Vietnamese market for organic tea is too small. However, there are large and growing export markets in countries like Japan, China, Taiwan, the United States of America and European countries. Chinese traders are already active in Ha Giang province and in some cases focus on the higher quality tea products from Ha Giang; this indicates a potential higher market segment in China.
- II. X - HCTC has indirect sales connections with Afghanistan, Pakistan, Russia, Korea, India, Taiwan, China, Germany, The United States of America and the Netherlands. HCTC has indicated that they would like to export directly to these countries but they have difficulties in selecting their entry mode.
- III. ✓ - The only legal entity available that has the potential to be certified as an organic producer, or is capable of operating an ICS is HCTC.
- IV. X - There is no specific knowledge available in the producer group or the supporting parties on •1) organic farming and production techniques, and •2) potential organic site survey.

HCTC, DARD, AEC and PPSD have skills and experience with assessment of production and producers. SNV has skills and experience with supply chain actor selection and project design.
- V. X - Management and administration of input supplies is non-existent in Ha Giang province. HCTC does not have any administration in place on this.
- VI. X - ICS regulations, protocols, records, inspections reports, agreements and post harvest procedures have not yet been developed.
- VII. X - HCTC has experience with form design; however skills on complete production manual design are not available in the producer group.
- VIII. X - HCTC has a rough tracking system in place throughout their production line and post production activities. Currently they can potentially trace back their products to the level of which factory processed the tea. However, in practice, after processing the tea is completely mixed before it is exported and lacks any form of traceability.
- IX. X - Currently, there are no identifiable isolated production lines within HCTC's network of production facilities. Farmers are willing to solely produce organic tea when they are sufficiently informed and guaranteed a suitable compensation for the risk that they take.
- X. ! - Currently farmers do not have any type of documentation system in place; however they have indicated that they are capable of doing so. Collectors in general have a quantity oriented documentation system in place.

Literacy rate in Ha Giang was 68.1% according to the last official census in 1999, and 79.9% for the whole north-western region of Vietnam according to the last household survey in 2006. 7 out of 7 (100%) interviewed farmers

indicated that they are literate. Ha Giang has a relatively low literacy rate when compared to other provinces of Vietnam. Most illiteracy is found amongst the ethnic minorities living in remote communes.

- XI. **X** -Awareness of the dangers of the usage of chemical fertilizers is not widespread. In general farmers in the lowland region are aware of the health risks of pesticides, but not on the contamination dangers. The farmers in the highland region that do not apply any chemical substances to their trees are not aware of dangers of contamination from other crops. Since rice paddies in general are chemically fertilized there is a real danger of contamination. Both larger and smaller tea processors are on the same level as the farmers considering their knowledge on these issues.
- XII. **X** - Post harvest practices amongst farmers are limited to collecting tea and bringing it to the nearest collection point or factory. Skills need to be developed on output documentation.
- XIII. **√** - HCTC has indicated that it is willing to pay certification costs, as long as they can clearly see that this investment will eventually lead to increased profitability.
- XIV. **X** - None of the interviewed farmers use organic propagation material. They collect tea seeds or seedlings from non-organic sources. There are private owned nurseries in Vi Xuyen, Quangh Binh and Hoang Su Phi. However, these nurseries use chemical fertilizer and in some cases pesticides.
- XV. **√** - Farmers in the highland region make no use of organic fertilizers and organic pesticides. Farmers in the lowland region scarcely use organic fertilizer. This is reinforced by the insights from the overview of the tea sector.
- XVI. **X** - Farmer in the lowland region use pesticides and chemical fertilizers. Farmers in the highland region use chemical fertilizers in the rice paddies.
- XVII. **√** - HCTC has indicated that it is willing to support farmers financially during the conversion period, as long as they can clearly see that this investment will eventually lead to increased profitability.
- XVIII. **X** - None of the interviewed farmers know what IPM or “organic farming” means.

Conducive conditions

- XIX. **!** - Both in the lowland and highland region, tea farm land is very scattered. There are very few areas with undisrupted tea fields.

The contamination risks from other crops that are treated with chemical substances are considerable in both the lowland as highland areas. Virtually all rice paddies in the highland are treated with chemical fertilizer. As indicated above, different crop types are very much scattered amongst each other. Furthermore, the elaborate irrigation channels that feed the rice paddies are a potential carrier of chemical fertilizer residue.

XX. √ - In the highland tea area, soil fertility is sufficient to cultivate tea. This is proven by the fact that no single farmer applies any sort of fertilizer to the tea trees, primarily to the remoteness of the area and the steep slopes of the tea areas. Compost is also not being applied for the same reasons.

In the lowlands tea area, natural soil fertility is not sufficient for the high intensity tea cultivation that is taking place. Furthermore, compost is used in nurseries and for newly planted trees and seems to be in short supply.

XXI. X - Farmers have no understanding of and no skills on promoting organic products.

XXII. ! - Farmers have access to credit schemes from various sources. 90% Of all farmers reportedly have access to the privileged credit from the Farmer Union in which the farmers union guarantees loans for farmers to the Social Policy Bank. The approval of all credit requests is done by vote of a small farmer group on commune level. It is uncertain if this credit scheme is suitable for investment related to organic certification.

Appendix 5 – Full overview of actual conditions in Lai Chau province

The Roman numerals in this chapter correspond with Roman numerals from the required conditions from chapter 3 of this thesis. The conditions set in the **grey background** are **non-adaptable conditions** and the conditions lacking this background are **adaptable conditions**. The following symbols are used to categorize the values of the actual conditions:

√	favourable condition
!	favourable condition but requires attention
X	lacking condition

Shared actual conditions

Necessary conditions

- I. √ - There are indications of information asymmetry in the Vietnamese domestic food market at large.
- II. X - Vertical relationships in Tan Uyen district are far stronger than in Tam Duong district and Lai Chau Town. TUTC has achieved this by forming a supply base on contract and worker farmers. The vertical relationships in Tam Duong are mostly on a purely economic basis. STC and TDTC try to increase their farmer relationships by signing contracts with them. However, farmers often breach their contract. TGTC does not even have direct contact with the farmers that supply them but instead relies completely on tea leaf collectors. STC and TDTC also make use of tea leaf collectors, but try to improve the relationship with their supplier farmers. Vertical relationships in the production chain that includes small household processors are considered to be the weakest.

Horizontal relationships are considered weak; the maximum cooperation between any of the actors on a horizontal level is an unstructured dialogue. No cooperation whatsoever was found with any of the actors on a horizontal level.
- III. X - Farmer training is carried out in an unsystematic manner throughout Tan Uyen and Tam Duong districts and Lai Chau Town. Farmers receive training from different parties: DARD, PPSD, Farmer's Union and TUTC, suggesting an incoherent training schedule. All farmers that supply TUTC have received IPM training. DARD, PPSD, the Women's Union and the Farmer's Union have the most experience and skills with the preparation of training material. Furthermore TUTC has developed skills and experience in this field.

Farmer inspections are rare, only TUTC carries out irregular and unstructured farmer inspections.

Conducive conditions

- IV. ! - Overall we have found capable and willing persons with every crucial actor in the tea value chain in Lai Chau, from private sector parties to local authorities. Farmers have also indicated a willingness to cooperate. There are indications that farmer willingness to cooperate is positively linked with the size of the share of tea in their total income, suggesting that farmers are willing to label their tea if their income substantially depends on it.
- V. X - There are no farmer organizations capable enough to coordinate the introduction of a GI or organic label.
- VI. √ - TUTC, STC and TGTC have indicated that they are willing to guarantee farmers a minimum price, as long as the introduced label provides a sufficient premium price.

Actual conditions for Geographical Indications

Necessary conditions

- I. X - There is no proven and identified (niche) market for a GI for Snow Tea from Lai Chau province. There are some indications that Moc Chau Tea Company receives a lower price than TUTC tea currently receives. Profitability of a GI is highly doubtful.

The introduction of a GI is only feasible when there is a substantial and identified niche market for the specific product; this niche market is not identifiable for Snow Tea from Lai Chau. Snow Tea from Lai Chau is considered as very common tea in the local market that is available throughout the whole of Vietnam and as a cheap, low quality tea in the international market that is instantly interchangeable with other teas from Vietnam.
- II. ! - The Vietnamese intellectual property law provides GI protection. However, the correct functioning of this law is not yet proven.
- III. √ - DARD and PPSD have expressed their support for the introduction of a tea label and foresee an active role for themselves in this process. Furthermore the introduction of a tea label is in line with current government policy in Lai Chau to increase the quality of the tea.
- IV. X - Snow Tea production methods in Lai Chau and the characteristics of Snow Tea from Lai Chau in no way positively differentiate themselves from any other tea producing region in the world. Production methods are at best “from the textbook” and although the tea itself is very characteristic for the area it comes from, there is no significant positive acknowledgement of these characteristics. And if this positive acknowledgement is not present at this moment, it will require a massive marketing effort to create this. In addition, there is no sizeable tourist sector in Lai Chau to “kick-start” any GI.
- V. X - Snow Tea farming is widespread throughout the whole of the northern tea growing area of Vietnam. Snow Tea grows in many provinces besides Lai

Chau. An undeniable aspect of a GI is that it should be restricted to a geographical area from where a specific product is unique. This is not the case for Snow Tea from Lai Chau. There are no prized and unique product features and there are no identifiable traditions involved with the production of Snow Tea from Lai Chau.

- VI. X - There are no identifiable traditions related to the production of Snow Tea and there is no collective decision making in place concerning the production methods throughout Lai Chau province.
- VII. X - Technical, legal, and administrative capabilities are present in the producer group. TUTC clearly has the strongest position. STC and TGTC have weak technical, legal, and administrative capabilities. Marketing capabilities are not present in the producer group or the supporting parties. Small household processors are
- The overall capabilities of TDTC should be considered as very low due the company's enduring declining productivity and their weak financial position. Also the overall capabilities of small household processors should be considered as very low due to limited capabilities and resources.
- VIII. X - Common standards, rules, coordination, control and exclusion devices have not yet been developed since no GI is currently in place.
- IX. X - An intensive, professional and coordinated marketing effort has not yet been executed for Snow Tea from Lai Chau. The majority of successful GI's around the world achieved their success through an intensive and coordinated marketing effort. Up until now no party in the Lai Chau tea sector has executed any marketing effort beyond irregular attendance of trade fairs. This means that there is no foundation on which to develop this marketing effort. Since there is no direct marketing skill present in the producer group or with the supporting parties, possibly outside parties have to be brought in. In any circumstances this will be a costly activity with no guarantee of success.

Conducive conditions

- X. X - There might be friction between the goals of SNV (poverty reduction) and the goals of the private sector parties (striving towards ever increasing profit).
- XI. X - Lai Chau province has a minor tourist industry.
- XII. X - Only STC and TDTC sell 1% of their total output packaged and labelled through a selected retail network. Only STC sells an even smaller proportion of this 1% to a supermarket in Hai Duong province.

Actual conditions for organic labels

Necessary conditions

- I. ✓ - The Vietnamese market for organic tea is too small. However, there are large and growing export markets in countries like Japan, China, Taiwan, the United States of America and European countries.
- II. X - TUTC has indirect sales connections with Japan, Taiwan and China and has indicated that they would like to export directly to these countries. Also STC has indirect sales connections with Taiwan. These countries are at the same time the largest markets for organic green tea in the world. Currently, no party within the producer group or the supporting parties has direct access to these overseas markets. Access to these markets should be a priority when organic certification is considered. Taiwan only recognizes organic imports from a selected group of countries, of which Vietnam is not a part. This leaves Japan and China as the best potential organic export markets. Organic certification should be sought in accordance with either or both of these two countries.
- III. ✓ - The only legal entities available that have the potential to be certified as an organic producer, or are capable of operating an ICS are: (hierarchically based on their proven capabilities) TUTC, STC, TGTC and TDTC. TUTC has, by far, the most potential.
- IV. X - There is no specific knowledge available in the producer group or the supporting parties on •1) organic farming and production techniques, and •2) potential organic site survey.

DARD and PPSD have skills and experience with assessment of production and producers. SNV has skills and experience with supply chain actor selection and project design. It is an absolute necessity that knowledge on these issues is gained within the producer group. This knowledge then has to be spread down to the farmers.
- V. X - In general management and administration of input supplies are weak in Lai Chau province. TUTC is the only actor that claims to produce according to IPM guidelines. However, their control of input supply is the sole task and responsibility of 6 TUTC employers that are at the head of 6 TUTC administrative farmer groups. Their system is mostly undocumented and its correct functioning is difficult to prove.
- VI. X - ICS regulations, protocols, records, inspections reports, agreements and post harvest procedures have not yet been developed.
- VII. X - TUTC, STC, TGTC and TDTC all have experience with form design; however skills on complete production manual design are not available in the producer group.
- VIII. X - Handling, packaging and storing activities and traceability between these activities are not up to organic standards. All actors have an insufficiently developed or even non-existent traceability system throughout their total production process. TUTC is the only tea processor that has a very rough

traceability system in place; this system needs to be improved before it is up to organic standards.

Storing activities are lacking especially on a hygienic standards. It was observed with all parties in the producer group that tea is stored on the same floor that people and even animals walk upon during many stages of the production process.

- IX. **X** - Currently, there are no identifiable isolated production lines in the producer group. Every organic certification system forbids mixing of organic with non-organic products during any stage of the production process. An isolated production chain needs to be set up in the producer group. Farmers must be willing to solely produce organic tea and **no other non-organic certified products** on the same farm. All potential organic tea farm land must be secured against any contamination threats from both within and outside. This threat can come from neighbouring farm land, irrigation systems, storage areas and transportation devices.

Farmers in Lai Chau are willing to solely produce organic tea when they are sufficiently informed and guaranteed a suitable compensation for their development and risk.

- X. **!** - Farmer literacy rate is estimated at 90% by knowledgeable sources in Lai Chau province. 17 out of a total of 18 (94%) interviewed farmers, collectors and small farmer/processors are literate, confirming the high literacy rate. However, only 6 out of these 18 (33%) actors have some sort of administration system in place.
- XI. **X** - Awareness of the dangers of the usage of chemical fertilizers is not widespread. 7 Out of 14 (50%) interviewed farmers are aware of the risks of (pesticide and chemical fertilizer) contamination. These are mostly farmers that supply TUTC. However, their actions to prevent this from happening are not up to organic standard level. Both larger and smaller tea processors are on the same level as the farmers considering their knowledge on these issues.
- XII. **X** - Post harvest practices amongst farmers are limited to collecting tea and bringing it to the nearest collection point. Skills need to be developed on output documentation.
- XIII. **√** - TUTC, STC and TGTC have indicated that they are willing to pay certification costs, as long they can clearly see that this investment will eventually lead to increased profitability. TDTC is having financial difficulties at the moment and is not considered capable of carrying the burden of certification costs.
- XIV. **X** - None of the interviewed farmers use organic propagation material. They collect tea seeds or seedlings from non-organic sources. TUTC has indicated that it wants to set up a plant nursery.
- XV. **!** - All interviewed farmers make use of buffalo or pig manure as part of their total fertilizer package. Furthermore, farmers that have had training from PPSD, DARD or TUTC use tea plant pruning waste as organic

fertilizer/mulch. All farmers interviewed on the subject indicated that there is a structural lack of compost material available.

- XVI. X – 9 Out of 14 (64%) interviewed farmers make regular use of chemical substances like pesticides, herbicides and chemical fertilizer. There is only one farmer that does not use pesticides or chemical fertilizer due to health issues. 4 interviewed farmers do not use pesticides or chemical fertilizer because the investment is too high compared to the income from tea, but would use them again when the price of tea increases.
- XVII. ✓ - TUTC, STC and TGTC have indicated that they are willing to support farmers financially during the conversion period, as long they can clearly see that this investment will eventually lead to increased profitability. TDTC is having financial difficulties at the moment and is not considered capable of increasing purchases prices.
- XVIII. X – 8 Out of 14 (57%) interviewed farmers know what IPM is and have had IPM training. None of the interviewed farmers knows what “organic farming” means.

The IPM experience is a good indication of farmer capabilities and a clear step towards organic production. However, farmers need to be informed about the differences between these two systems as it might be a cause for misunderstanding.

Conducive conditions

- XIX. ! – In general farm land is scattered in Lai Chau. There are few areas with undisrupted tea fields. The best potential location for organic tea cultivation is amongst the relatively undisrupted land in Tan Uyen district that either belongs to TUTC or to farmers with whom TUTC has contracts. Tea farm land here is both located on higher grounds as well as lower grounds. Highest potential farm lands are located on high grounds that have a low chance of contamination from banned substances. However, one has to carefully consider the height of the potential organic farm land, because the higher the potential area is, the more difficult it becomes to bring compost and organic fertilizer to the area.

Also there is always the (pesticide) contamination threat from other crops that are located within the tea area or from tea farm land within the potential area that is not managed in accordance to organic standards. Furthermore, irrigation channels cross through both tea and non-tea farming areas.

Tea farm land in Tam Duong district and Lai Chau Town is more scattered than in Tan Uyen district and thus less suitable for organic farming.

- XX. ! – According to farmers, processors and knowledgeable local authorities from Lai Chau province, soil fertility is sufficient for growing organic tea. This is also demonstrated at sites like Ta Leng commune, where tea has been growing without any added chemical substances.

Buffalo and pig manure is available throughout the province and could serve as a basis for organic fertilizer; also farmers make use tea plant trimmings as a soil cover. However, knowledge on effective compost usage is non-existent in the potential producer group. In any circumstance, after conversion to organic methods, tea yields are guaranteed to decline in the short term of 3 to 5 years. In the longer term, when appropriate organic production techniques are used, tea yields will climb up to the original level and stabilize.

- XXI. **X** - Farmers have no skills on promoting organic products.
- XXII. **X** - Farmers have access to credit schemes from various sources, however these are not aimed at providing funds for: •1) high initial certification costs, and •2) continuous support during the conversion period.

Appendix 6 - List of interviewees in Ha Giang province

Date / Period	Interviewee name	Interviewee function	Location	Telephone
From 7/6/2009 to 12/6/2009	Mr. Nguyen Thanh Hung	Director HCTC	Vi Xuyen dist.	219826434
	Mr. Khoa	Vice director HCTC	Vi Xuyen dist.	219826434
	Ms. Nam	Vice director HCTC	Vi Xuyen dist.	219826434
	Mr. Toan	HCTC Cao Bo factory manager	Vi Xuyen dist.	219826434
	Mr. Theu	Tea farmer and hamlet chief Cao Bo	Vi Xuyen dist.	-
	Ms. Do May Len	Tea collector Viet Lam	Vi Xuyen dist.	2193828616
	Mr. Dang Van Thuy	Director DARD Vi Xuyen & nursery owner	Vi Xuyen dist.	219826395
	Ms. My	Director HCTC satellite factory Viet Lam	Vi Xuyen dist.	2193827239
	Mr. ?	HCTC Viet Lam factory manager	Vi Xuyen dist.	219826434
	Mr. Lap	Vice chairman Communal People's Committee (CPC) Cao Bo	Vi Xuyen dist.	-
	Mr. Toan	Small household processor Viet Lam	Vi Xuyen dist.	-
	Ms. Binh	Unlinked tea farmer Viet Lam	Vi Xuyen dist.	945034448
	From 15/6/2009 to 17/6/2009	Mr. Minh	Vice director DARD Bac Quang	Bac Quang dist.
Mr. Cuong		HCTC Tan Lap factory manager	Bac Quang dist.	219826434
Mr. Luong		Tea Farmer Tan Lap	Bac Quang dist.	-
Ms. Ta		Small household processor Tan Lap	Bac Quang dist.	-
18/6/2009 and 19/6/2009	Ms. Chung	Director DARD Quang Binh	Quang Binh dist.	915435275
	Mr. Pu	Tea farmer Tan Nam	Quang Binh dist.	-
	Mr. Linh	Chairman CPC Tan Nam	Quang Binh dist.	-
	Mr. Tra	Tea Farmer Tai Bac	Quang Binh dist.	-
	Mr. Hai	Chairman CPC Tai Bac	Quang Binh dist.	-
	Mr. Hai	Chairman tea processing cooperative	Quang Binh dist.	2193820080
From 22/6/2009 to 24/6/2009	Mr. ?	Small household processor Tan Nam	Quang Binh dist.	-
	Mr. Nhan	Chairman Thong Nguyen CPC & chairman Fin Ho processing collective	Hoang Su Phi dist.	912932116
	Mr. Ly	Director DARD Hoang Su phi	Hoang Su Phi dist.	912606368
	Ms. Nhung	Tea farmer Nam Dich	Hoang Su Phi dist.	-
	Mr. Loang	Tea farmer Nam Ty	Hoang Su Phi dist.	-
	Mr. Cuong	Tea processor / collector Nam Dich	Hoang Su Phi dist.	1239864268

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	Ms. ? / Mr. Khe	Tea processor / collector Nam Ty & nursery owner	Hoang Su Phi dist.	1678427158
25/6/2009 and 26/6/2009	Mr. Hoa	Chairman Hoa An tea cooperative	Ha Giang Town	1664499118
	Mr Tuan	Vice Chairman Agricultural Extension Centre	Ha Giang Town	2193887581
	Mr. De	Vice director DARD province level	Ha Giang Town	915604864
	Mr. Hai	Vice director Dept. of Culture Sports and Tourism	Ha Giang Town	-
	Ms. Lan	Vice director Dept. of Science and Tech.	Ha Giang Town	-
	Mr. Tu	Vice chairman Farmers Union	Ha Giang Town	2193866298
	Mr. Nguyen Duc Tuan	Vice Director Cooperative Alliance	Ha Giang Town	219867671
	Mr. Son	Director Plant Protection Sub Dept.	Ha Giang Town	219606054
29/4/2009	Mr. Hiên	General Manager HCTC warehouse	Hung Yen	219826434

Appendix 7 - List of interviewees in Lai Chau province

Date / period	Interviewee name	Interviewee function	Location
7/4/2009	Mr. Le Anh Tuan	Advisor Market access for the poor / agriculture extension SNV	Hanoi
24/4/2009	Mr. Paul Weijers	Sector leader Small Holder Cash Crops SNV	Hanoi
4/5/2009	Ms. Pham Thi Thuy Quynh	Advisor Small Holder Cash Crops SNV	Hanoi
From 20/5/2009 to 22/5/2009	Mr. Ha Van Um	Vice director DARD province level	Lai Chau Town
	Ms. Lien	Vice Chairman Farmers Union	Lai Chau Town
	Ms. Nhan	Vice director Plant Protection Sub Dept.	Lai Chau Town
	Ms. Xuyen	Chairman Women's Union	Lai Chau Town
	Ms. Loan	Vice director Thanh Gia Tea Cooperative	Lai Chau Town
	Mr. Trinh	Tea farmer/processor Lai Chau Town	Lai Chau Town
	Mr. Dung	Tea farmer/processor Lai Chau Town	Lai Chau Town
	Ms. Nhin	Small Household processor Lai Chau Town	Lai Chau Town
	Mr. Thuan	Small Household processor/ pesticide trader Lai Chau Town	Lai Chau Town
	Mr. Quyen Cuong	Tea trader Lai Chau Town	Lai Chau Town
From 11/5/2009 to 20/5/2009	Ms. Binh	Worker farmer TUTC	Tan Uyen dist.
	Ms. ?	TUTC collection point manager	Tan Uyen dist.
	Mr. Phao	TUTC contract farmer Phuc Koa /Phuc Koa unit leader	Tan Uyen dist.
	Mr. Hue	TUTC contract farmer Phuc Koa	Tan Uyen dist.
	Mr. Duyen	Vice chairman DARD Tan Uyen dist.	Tan Uyen dist.
	Mr. Tung	TUTC worker farmer Than Uyen Town	Tan Uyen dist.
	Mr. ?	Ex tea farmer Pac Ta	Tan Uyen dist.
	Mr. Bay	Small household processor Pac Ta	Tan Uyen dist.
	Mr. Tiem	TUTC project farmer Than Uyen Town	Tan Uyen dist.
	Mr. Luong	TUTC project farmer Than Uyen Town	Tan Uyen dist.
	Ms. Thuy	Small household processor Phuc Koa	Tan Uyen dist.
	Ms. ?	Small household processor Phuc Koa	Tan Uyen dist.
	Mr. Chung	Unlinked tea farmer Phuc Koa	Tan Uyen dist.
	Mr. Sang	Director TUTC	Tan Uyen dist.

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	Mr. Manh	Chief planning Dept. TUTC	Tan Uyen dist.
	Mr. Trung	Vice director TUTC	Tan Uyen dist.
From 22/5/2009 to 29/5/2009	Mr. Hue	Chairman CPC Binh Lu	Tam Duong dist.
	Mr. Dat	Chairman Binh Lu Cooperative	Tam Duong dist.
	Mr. Choi	Tea farmer/processor Binh Lu	Tam Duong dist.
	Ms. Than	Tea farmer/processor Binh Lu	Tam Duong dist.
	Mr. Luc	Director DARD Tam Duong	Tam Duong dist.
	Mr. ?	Chairman CPC Giang commune	Tam Duong dist.
	Mr. Kien	General Manager Shan Tea Company	Tam Duong dist.
	Ms. Ngan	MDI employee	Tam Duong dist.
	Ms. ?	Collector / supplier for TGTC	Tam Duong dist.
	Mr. Huong	Director Tam Duong Tea Company	Tam Duong dist.