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Preface and acknowledgement

The present study is the result of a group effort involving six researchers working on behalf of the German Development Institute (DIE), as mentioned on the cover of this publication. However, it would not have been possible to carry out this research project without the support of a series of people in Sri Lanka. We would, therefore, like to take this opportunity to especially thank and give our deep gratitude to Darshana Senenayake from the Ministry of Enterprise Development in Sri Lanka and to TPL Raj, Director and CEO of Lanka Organics, for their support and assistance. We are extremely thankful for their help in preparing our research and appreciate that they assisted us during the field studies, which ultimately contributed to the overall success of this project. Furthermore, their openness and kindness helped us to quickly get familiarized with the beautiful Sri Lankan culture and we have formed a deep and lasting affection for it.

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We deeply regret that several months after our field research was completed the devastating Tsunami disaster hit the costal areas of Sri Lanka. Due to this horrible incident, we would like to dedicate this publication to the tens of thousands of Sri Lankans who lost their lives in this enormous environmental catastrophe.

Bonn, March 2006

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Abbreviations

ASEAN	Association of Southeast Asian Nations
BCI	Business Competitive Index
BOI	Sri Lankan Board of Investment
BSE	Bovine Spongiform Encephalopathy (mad cow disease)
CCC	Ceylon Chamber of Commerce
CIS	Commonwealth of Independent States
EDB	Sri Lankan Export Development Board
EU	European Union
EurepGAP	Euro-Retailer Produce Working Group – Good Agricultural Practices
FDI	Foreign Direct Investment
FLO	Fairtrade Labelling Organizations International
FSC	Forward Sales Contract
GCI	Growth Competitiveness Index
GDP	Gross Domestic Product
GM	Genetically Modified
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
ha	Hectares
HACCP	Hazard Analysis and Critical Control Points
ICT	Information and Communication(s) Technology
IFPRI	International Food Policy Research Institute
ILFTA	Indo-Lankan Free Trade Agreement
IRD	Integrated Rural Development
ISO	International Organization for Standardization
ITC	International Trade Center
MDG	Millennium Development Goals
Mio.	Million
MNE	Multinational Enterprise
Nafta	North American Free Trade Agreement
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development

Ph.D.	Doctor of Philosophy / Philosophiae Doctor
PPP	Public-Private-Partnership
PRSP	Poverty Reduction Strategy Paper
R&D	Research & Development
SAFTA	South Asia Free Trade Association
SLEDB	Sri Lanka Export Development Board
SLIS	Sri Lanka Institute of Statistics
SME	Small and Medium-sized Enterprise
TBT	Technical Barriers to Trade
TCI	The Competitiveness Initiative
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNCTAD	United Nations Conference on Trade & Development
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
US / USA	United States of America
USAID	United States Agency for International Development
US $	United States Dollar
VCA	Value Chain Approach
WTO	World Trade Organization

of the chains. Such chains are heavily dominant in the tea sector, where approximately 95 percent of Sri Lanka's tea is sold at weekly auctions and to some extent in the spice sector. Most of the companies we interviewed perceive the auction system as overwhelmingly positive and highlight its transparency, openness and flexibility and the rather reliable product quality.

Despite the advantages listed above, auction based value chains have also clear disadvantages when catering to demanding markets. Auctions are generally characterized by little buyer-supplier contact, minimizing quality feedback and knowledge transfer among the agents. This is an especially significant drawback for any process of product upgrading and for pursuing a specialty-produce strategy. That is the reason why specialty teas, such as organic tea, are not traded at auctions.

Strongly-linked / relational chains

Although the majority of the value chains in Sri Lanka are rather fragmented, there are some significant chains in which the agents are linked in a systematic way through longer-term commercial relations, intense interaction, mutual information, and knowledge transfer up-stream as well as downstream the chain. Such relational chains are often formed by coordinating efforts in the Fair Trade and organic sector. These are rather small, but growing segments of the international agribusiness. However, we also found relational chains outside of these niches. This is the case when the business objective is to cater high-value products to challenging, mainly OECD-markets.

Outgrower schemes are by far the most important mechanism for Sri Lanka to coordinate relational chains. They link small farm units to companies that provide production and marketing services to smallholders. The latter is responsible for growing and for the first steps in processing, whilst the contractor does further processing, marketing and manages the whole operation. Outgrower schemes have the advantage of allowing thorough supply-base management and development. Filling the gap between the exporters/processors and the suppliers, allows for good supply coordination. The high level of interaction can assure good and stable quality of produce.

In relational value chains the produce is easily traceable. A direct contact between exporters and their own collectors and even their suppliers render it

easy to keep track of the origin of each produce. Especially in the organic sector it is extremely important that the exporting company is able to proof that the production processes matches the requirements of the organic markets. One of the clearest results from the factors mentioned above is the lower level of post-harvest losses in chains characterized by outgrower schemes.

However, relational chains characterized by outgrower schemes also carry some disadvantages and risks for the contracting company. Building up such interlinked chains involves a significant long-term investment for a contractor that will only pay-off after several years. This commitment is also associated with high risks. Established outgrower schemes can fail and they do, as our empirical research indicates. Failed outgrower schemes have led inevitably to sunk costs since there is no way for the contractor to recover the investment.

We can explain the following observations derived from our research after considering these costs and risks of engaging in the establishment of outgrower schemes under the present conditions of Sri Lanka, characterized by high levels of uncertainty. First, the companies that were identified as integrators of relational chains do not belong to the smallest group of enterprises, but rather to the strata of medium to large companies, as they are the units that can afford the initial investment costs and can take the associated risks. Second, many of these integrators of relational value chains operate in external market segments that in turn lower the uncertainty of international transaction and permit the contractors to gradually develop their operations.

Vertically-integrated chains

Finally, we have come across what we refer to as "vertically-integrated chains". These chains are characterized by the agents identifying themselves as belonging to the chains. Several of the advantages of relational chains described earlier can be found in the vertically-integrated chains as well, namely the close relationship between the exporters/processors and their suppliers and the traceability of the produce. An additional advantage of vertically integrated chains with regard to relational chains is that they usually include large scale operations, such as plantation farming that lead to economies of scale. An effective division of labor can be introduced, and transaction costs can be greatly reduced. Implementing new rules and

changing production are much easier to achieve than in fragmented chains. This allows for smooth chain operations and adds to the direct control of the supply base.

However, a high level of investment capital is required to launch an integrated value chain. As a result, this might only be an option for relatively powerful players. Companies with vertically integrated value chains face relatively high risks associated to changing demand patterns or price fluctuations for their main crop.

Social inclusiveness of an export-led growth in agribusiness

The predominant type of value chains that have been identified in Sri Lanka's agribusiness are characterized by traditional relations between small-scale producers, middlemen, processors, and exporters. The shortcomings of these linkages with regard to social inclusiveness are evident. They are related to power and information asymmetries and the absence of learning and upgrading possibilities. Due to the highly scattered production structure and the lack of producers' organizations, smallholders are highly dependent on middlemen to take their produce to the markets. Power asymmetries are especially high in the case of perishable products. Unequal distribution of power is aggravated by information asymmetries.

The position that farmers have in market based value chains is that they are cut off from important information emanating at the lower end of the chains, i.e. at the point where exporters receive valuable information about market trends with regard to consumer preferences, new legal requirements, and price trends. There is no regular feedback about the acceptance of delivered produce at the lower end of the chain i.e. about making possible adjustments in product lines or production processes and post-harvest treatment. This prevents farmers from systematic learning and upgrading processes that might improve their position within the value chain, e.g. by entering processes of certification.

Under the given framework conditions of Sri Lanka, we assess the development of relational chains as having the highest potential for social inclusiveness as it links small-scale producers with stronger agents on the basis of mutual interest. The most common approach to organize sourcing from smallholders is outgrower schemes. For those farmers that were surveyed,

we found that being integrated into an outgrower scheme has many advantages. The most important advantage is having an increased security regarding the cash income received during the harvest periods. This lowers the vulnerability of poor farmers' households considerably. Farmers can access - on beneficial terms - agricultural inputs, products required for post-harvest treatment and know-how and up-to-date information regarding products and processes. Certification costs are lower through collective bargaining. This is especially important in organic agriculture, where all production sites have to be certified.

The number of farmers that can be reached through outgrower schemes is significant. During our research the medium-sized company, Lanka Organics had integrated about 1300 farmers in different parts of Sri Lanka.

Conclusions for value chain research

The value chain approach turned out to be a highly useful instrument for analyzing and designing adequate policies and instruments. However, we detected some shortcomings in the theoretical background and some underlying concepts we were not able to verify in the context of Sri Lanka's agribusiness. A mandatory existence of a *lead firm* does not apply to every value chain. In fact, we perceived that most value chains in agribusiness are either multi-polar driven or market-demand driven. For the former, we identified a number of agents along the chain that were able to exercise some sort of standard and rule setting power. For the latter, which especially applies to non-branded bulk commodities, we even found that the tough price competition on global markets dictates the rules of the game. There is no specific rule setting power for any specific party, except for pushing the price pressure of end-consumer markets up the chain. In these cases, only external standards fence the value chains and determine who can enter the chains and those that cannot. A series of standards are indeed getting more and more ubiquitous at least in the food sector.

Policy recommendations

A broad and heterogeneous sector like Sri Lanka's agribusiness cannot be subject to one single strategy, however, it is important to achieve a clear picture of the development challenges and how these challenges might be transformed into opportunities under the present conditions of globalization.

A general agreement for the **development path** of Sri Lanka is important. This involves getting different stakeholders and ethnic groups interests aligned. Alone to agree upon the most effective investment of scarce public resources, e.g. in education and training or infrastructure is necessary. This agreement could be seen as a "down to earth" vision of Sri Lanka's future. On the one hand, it should be challenging enough to be appealing for the relevant stakeholders and suitable to overcome the barriers of traditional development paths. On the other hand, it should be apt to be broken down into detailed steps that can lead from today's situation to the envisaged situation in the future.

Our interviews have shown that many Sri Lankan agents already have a rather clear under-standing of how an upgrading strategy with regard to their specific sector could look like and that promising ideas for Sri Lanka's agri-business exist. A series of stakeholder dialogues have been initiated to permit public-private interaction in order to achieve a better positioning of Sri Lanka in international value chains. In a traditionally fragmented society, as is the case in Sri Lanka, the mere existence of open dialogue platforms can be seen as an important step ahead. However, multi-stakeholder fora should quickly achieve implementing functions if they shall be transformed into relevant development tools. We propose to continue these fora and to extend them to what we would label as **Value Chain Initiatives**. Clear strategies with targets, indicators and bench-marks should be elaborated.

Outgrower schemes represent a proven strategy to quickly overcome some of the existing shortcomings of the value chains in Sri Lankan agribusiness. The public sector should assist private companies, which are setting up outgrower schemes by providing a conducive legal framework to reduce the transaction costs involved and consequently increase the effectiveness of outgrower schemes. Another essential backbone is an arbitration system or a legal insurance system to assure enforceability of contracts. The aim must be a balancing of the risks of each stakeholder involved to enable a win-win situation for farmers as well as contractors to ensure the economic sustainability of the scheme. Furthermore, model contracts developed by the initiatives would greatly support the diffusion of the concept.

International buyers and lead firms, which are often **multinational enterprises** (MNEs), are important sources of information and most often have a large client base. MNEs are the largest source of corporate R&D; therefore,

they possess high competencies in terms of technology and know-how. Promoting linkages with these enterprises is one of the most effective ways of triggering technology and knowledge transfer upstream into the value chain. The possibilities of attracting considerable FDI to Sri Lanka by implementing an improved promotion policy are limited, due to structural problems mentioned throughout this report and due to the still fragile peace process. Thus, ways should be explored to make use of international companies even if they are not (yet) willing to engage in the country.

Proceeding towards more knowledge-intensive activities requires that in Sri Lanka specific knowledge is created to provide the local agents with unique advantages that will help them to improve and subsequently maintain their position in global value chains. Even countries that are not competing at the high-end of technology markets need a functioning **innovation system**. Even if research-oriented companies are scarce in Sri Lanka, our survey identified a number of companies that are continuously improving their products and striving to create and apply new knowledge to processes and products. On the other hand, Sri Lanka has a series of publicly funded universities and R&D institutes with a high potential to generate new knowledge and to screen the international science system. In this sense at least an incipient innovation system is present in Sri Lanka today.

A modernization of Sri Lanka's innovation system should be seen as an important contribution to a strengthening of value chains. Given the limited public resources, priority should be given to measures that may improve the efficiency of the current national innovation system.

Standards are becoming more important in international value chains. This trend will prevail and bears challenges as well as opportunities for Sri Lankan exporters. Companies have to bear the rising costs to comply with these standards and will also need to demonstrate compliance to the standards set by international buyers. On the other hand, standards also decrease transaction costs with regard to interaction with international buyers. Raising awareness about the increasing importance of international standards is one important task we identified. New expensive testing facilities are needed to be able to fulfill more demanding standards. In cases where the testing costs represent a real barrier for Sri Lankan companies, cost sharing between private and public sector should be considered.

Finally, the impact of specific value chain policies depends to a large extent on the framework conditions set by a range of general policy fields. From the perspective of Sri Lanka's agribusiness, three general policy fields seem to be very significant in order to create an **enabling environment**, namely infrastructure, land, and labor policies.

1 Introduction

One of the basic challenges of development co-operation is to identify viable models of how to contribute to economic growth in developing countries. On the one hand it is highly desirable to overcome structural problems, such as low per capita income and state revenues insufficient for adequately providing public goods, e.g. infrastructure, education and health services. On the other hand, taking into account the Millennium Development Goals (MDGs); growth should be socially inclusive to contribute to a dynamic reduction of poverty. It has to be based on the principles of ecological sustainability in order not to endanger the living conditions for further generations. In this way these generations can satisfy their basic needs.

The most important framework conditions for these desirable growth patterns are formed by globalization. Sustained growth cannot be possible under the conditions of increasingly open markets and intensifying trade flows if it is not based on the competitiveness of the companies involved. Even the differences between export-led growth and a growth pattern based on catering domestic markets are increasingly becoming blurred. The ability to compete internationally starts by penetrating into either market successfully.

The present study argues that a development path focusing on agribusiness is at least one promising option of achieving a socially inclusive growth under the conditions of globalization. Agriculture represents important, absolute and comparative advantages for many developing countries. There is no direct substitutive price-competition among developing countries for a series of agricultural products, because they depend on special agro-ecological conditions, at least for those located in different climatic zones. A growing and increasingly differentiated demand opens opportunities to place a variety of goods on local, regional, and global markets.

In many developing countries, agriculture-led development is the key to social progress and poverty reduction. Many of the absolute poor live in rural areas. Urban poverty is to a large extent the consequence of rural-urban migration, partly induced by low productivity and the lack of employment in agriculture. Thus, the generation of new sources of income in agribusiness is an especially important option to meet the challenges of development co-operation. This income is understood as agricultural pro-

duction and its backward and forward linkages. It is basically the value addition received by processing agriculture-based products.

The overall goals of an agriculture-led development are not new in development research and co-operation, but the conditions under which development takes place are rather different today than two or three decades ago. One condition that is rarely seen today is local markets that are not affected by international competition. Another condition that has changed is that agricultural production and trading of agricultural goods are organized in a very different manner from the spot-market relationships that characterized them for centuries. The new patterns of relationships among the agents in the markets are now being described by the term "value chain" and are prominently discussed in recent development literature.

The present study explores the possibilities and limitations of achieving a socially inclusive but competitiveness-based growth in the case of Sri Lanka's agribusiness. Sri Lanka is a country with a rather diversified agriculture and an already long tradition of serving international markets with agriculture-based products, such as tea, rubber or spices. The question of how to achieve high growth rates under the present international conditions has been a top priority on the political agenda of the last two Sri Lankan governments. There is strong political commitment to strategies of a dynamic poverty reduction, explicitly formulated in the Poverty Reduction Strategy Paper (PRSP) of 2003 "*Regaining Sri Lanka"* and reiterated by the government that came to power in April 2004.

The role of agriculture for achieving a dynamic and socially inclusive growth is evident. A large part of Sri Lanka's population still lives in rural areas and depends on agriculture or directly related activities. The agro-ecological conditions for a diversified agriculture and the production of high value products are very good. Manufacturing is a still very incipient economic sector, with the clear exception of the export oriented garment industry. However, the future of this activity is very uncertain. At the beginning of 2005 the textile quota agreement from the World Trade Organization (WTO) phased out, putting Sri Lanka's garment industry under heavy competitive pressure, mainly from China. Finally, while the PRSP stresses the need to develop modern service sectors, there is still very limited empirical evidence that this is happening. Tourism is the only exception, which is highly concentrated in the coastal areas.

The empirical research of this study was done from February to April 2004, i. e. some months before the Tsunami disaster devastated large parts of the coastal areas. For this reason, this tragic event is not reflected in our research.

Chapter 2 discusses in more detail the specific relevance of the agribusiness sector for development, highlighting static (labor intensity) as well as dynamic aspects (learning opportunities). Social inclusiveness is by far not self-evident; agribusiness development can leave mayor parts of the rural population marginalized. Hence, this chapter explores the opportunities to establish socially inclusive, yet globally competitive patterns of agricultural production. And it already provides some first considerations on policy options and possible interventions by development co-operation. To some degree this means using former development concepts that were widely applied, such as Integrated Rural Development (IRD), and adjusting them to the new parameters.

Chapter 3 introduces the value chain approach (VCA) as the main conceptual approach guiding the empirical research. There is an important finding in recent research about the preconditions of growth and employment generation in developing countries. It shows that competitiveness is fundamental for economic dynamics, but cannot be seen exclusively on the firm level. Instead, entire value chains have to be considered and managed in a way that assures competitiveness of the end-product on end-consumer markets. Hence, it is necessary to consider the flow of tangible and intangible assets along a chain as well as all vertical and horizontal linkages that influence the processes along the chain, if one wants to achieve competitiveness. For this reason, we use the value chain approach as the analytical framework and apply it to the specific scenario of agribusiness in Sri Lanka. As a result, we draw conclusions on the competitive position of Sri Lanka. But we also include our findings to provide for academic debate on the VCA and the usefulness of its elements.

Chapter 4 introduces the specific scenario for Sri Lanka. It outlines the relevance as well as the structure of Sri Lanka's agribusiness sector and its trade linkages. As previously stated, agribusiness plays an important role in Sri Lanka and bears further development potential. Its major commodities are tea, spices, rubber, and coconut products. Even though Sri Lanka has established bulk trading contacts with a number of economies and can continue to do so with some of these in the mid-run, future potential arises

for value-added products stemming from these crops, such as essential oils, cosmetics, pharmaceuticals, nutraceuticals, etc. to increase trade with more demanding, mainly OECD markets.

New challenges for Sri Lanka arising from international markets are further evolved in this chapter. The demand for quality and hygiene as well as standards in general are becoming more and more important in OECD economies, while countries and regions like India, China, and the Middle East mainly rely on bulk trading with lower quality requirements. This bears both a threat for Sri Lankan producers if they are not able to meet these higher standards, but also an opportunity to obtain value-addition when achieving these standards. In the long-run, these standards are becoming more and more important, even in markets like India, China, etc. Finally, this chapter assesses how Sri Lanka is prepared to meet these higher and more sophisticated demands from international markets.

In **Chapter 5** we reveal the core results of our research. In order to focus on our research, we analyzed in detail four value chains in Sri Lanka's agribusiness that are important for the sector and bear special potential for future development. These value chains are tea, spices, fruits and vegetables as well as the organic agricultural sector, as a cross-cutting value chain. We thoroughly scrutinized the flow of these products along each chain as well as the flow of intangible assets, especially knowledge transfer. And finally, we analyzed the room for upgrading.[1] Since independence Sri Lanka has a highly atomized structure in agricultural production, stemming originally from a scattered land distribution, because of political reasons and developments in the past decades. This makes it often difficult to achieve economies of scale in conventional production and hampers knowledge transfer.

We detect four different value chains prevailing in Sri Lanka's agribusiness: disintegrated, market-based value chains; weakly-linked value chains (auction-based chains in tea and spices); strongly-linked, relational value chains; and vertically integrated value chains. This is contrary to the five-

1 Upgrading is referred to as obtaining a higher share of value-addition by improving the products or processes, or shifting to the production of other products. A detailed definition as well as different upgrading strategies follow in Chapters 3 and 5.

fold division of value chains published in other research literature. They are divided according to their type of governance into market, modular, relational, captive, and hierarchical value chains.

Chapter 6 focuses on the second set of key questions underlying our research, mainly on how to achieve competitiveness, while at the same time assuring social inclusiveness, i. e. contributing to poverty reduction and increasing rural household incomes on a broad basis. The atomized supply structure of Sri Lanka includes many smallholders within the system and serves as a good basis to achieve socially inclusive growth in the sector. However, ways have to be found to include large number of smallholders into productive and long-term competitive production patterns. Outgrower schemes are seen as a working system with a lot of positive examples in the Sri Lankan context. The architecture and the contractual framework for these schemes need to be revised and adjusted.

Chapter 7 gives our final conclusions and policy recommendations. The first part draws together the results for academic research, i. e. new findings on the value chain approach (VCA). Throughout our research we found that when examining Sri Lanka it is necessary to have a different understanding of the term *lead firm* and for value chains in agribusiness in general. In agribusiness' value chains, single rules or standards setting companies are seldom present: If so, these are practically always *brand companies* with their own brands that market their products on international markets at superior prices. In addition, we conclude that it is adequate to classify into four prevailing value chains, as described above.

Embeddedness is a relevant aspect of Sri Lanka's context since ethnic or social relations seem to have an important influence on trading and business patterns. This aspect is, however, very difficult to analyze and more research needs to be done in this area.

The derived policy recommendations are primarily based on the initiated stakeholder dialogues. These initiatives need further support and need to increase their scope of actions. We propose creating the so-called *Value Chain Initiatives* with the explicit focus on entire value chains. Private and public agents should jointly define how and where general framework conditions need to change. They also need to define on how to achieve the required knowledge creation and knowledge transfer. A clear and most efficient division of tasks between private and public agents is necessary,

especially when considering demand-driven Research & Development (R&D) extension or other services. These initiatives should especially focus on two important agents of the value chain. These are the farmers at the very bottom-end of the chains and international companies at the very top-end. A major problem in Sri Lanka is the diffusion of knowledge among the farmers, which is necessary in order to assure a supply-base of high quality and reliable and adequate quantity. On the contrary, international companies are not used enough as sources of knowledge, linking Sri Lankan producers to international markets. New ways have to be designed as to how these companies can be attracted and linked to the Sri Lankan markets. Joint ventures between Sri Lankan and international companies as well as Public-Private-Partnership (PPP) projects are two promising instruments in achieving this goal.

Our research aim was two-fold: We wanted to analyze the different value chains of Sri Lanka's agribusiness to derive adequate policy recommendations as to how competitiveness can be achieved and how this can be combined with a socially inclusive growth. In addition, we utilized the VCA and applied it to the context of Sri Lanka's agribusiness. For our results, we needed to conduct a series of semi-structured interviews, nearly 100 in total. These interviews covered the entire range of the value chains. We conducted interviews with major European buyers and retailers of fruits, spices, and other agricultural goods to obtain an understanding of the key figures relevant on end-consumer markets. In Sri Lanka, our interview partners came from the entire range of the inbound value chain, i. e. from exporters down to the farm-level. We had a series of interviews with exporting companies, most located in the Colombo area, with processing companies around the country, with collecting farmers, and with a number of farmers in the respective value chains.

The second large group of interview partners came from ministries, other public institutions, research institutes, and business associations. Out of these interviews, we were able to obtain a broad picture of the already existing forums and their activities as well as a global picture of the general framework conditions in Sri Lanka. Additional interviews with the GTZ and other donors helped us to understand the activities of international development co-operation in Sri Lanka.

2 The role of agribusiness as a basis for sustained growth and broad social impact

In recent years agribusiness has been gaining momentum, because of its multi-sector attributes and the high potential for value-addition of agricultural products, both in terms of its interest for policy makers and in development literature. It provides useful avenues for tackling complex challenges of developing countries, more than solely focusing on agriculture. In this study agribusiness is seen as the spectrum of growing, harvesting, post-harvest handling, processing, marketing, and related commercial activities of agriculture-based cash crops. In other words, the term describes the agro-based production system established to cater distant markets. They can either be domestic or foreign, while connecting very closely with the rural non-farm economy. For clarity and conciseness this study limits agribusiness to export-oriented agribusiness by excluding subsistence farming or agricultural production that caters to local markets.

Agribusiness belongs to the industrial, agricultural, and service sectors, having an impact on each one of these sectors, while at the same time leading to an overall impact. When assessing as one in terms of GDP and employment, agribusiness is the single largest sector in many developing countries. The role of agribusiness is vital for the latter because it connects farm work with non-farm activities, such as processing produce. It covers numerous sub-sectors in the food and non-food production, from canned fruit to cotton, from cattle to cut flowers. However, the dispersed and widespread impact of agribusiness on an economy has made it difficult to collect and obtain reliable and appropriate data, and there is a lot of ground that needs to be covered in this area.[2] Little research has been done because of the complex nature of the sector; it encompasses many socio-economic factors and technicalities.[3] Also, missing is a clear line of governmental and ministerial activity, specifically focused on agribusiness.[4]

2 Cf. Giovannucci (2003).

3 Interview with Jacques Ferrière UNCTAD/Unilever, January 2004.

4 Cf. Haggblade / Hazell / Reardon (2002).

In this chapter we evaluate the implications of agribusiness for development in three parts. First, the term agribusiness is further elaborated before taking a closer look at the different ways in which it meets the objectives of developing countries. Secondly, the chapter looks at the potential that export-oriented agribusiness carries for development purposes. Obviously, there are some shortcomings in the analysis when looking at any sector approach to development, especially when focusing on agribusiness as a channel to achieve development goals. Thus, we continue to analyze the pro-poor effects of our approach in Chapter 6.

2.1 Agribusiness as an engine for rural development

Well functioning agricultural systems are important for growth and structural changes in low- and middle-income countries, such as Sri Lanka. Many developing countries' governments are increasingly building upon agribusiness in their poverty reduction strategies; in that respect, a new architecture for agricultural markets is gaining attention. We analyze the links between agribusiness and upgrading, diversification, employment, rural income, and urbanization. Further we introduce the role of business linkages.[5]

The complexity of the sector needs to be kept in mind before proceeding to analyze the impact of agribusiness on the development process of a country, or region for that matter. Each step in the agribusiness chain, from the farm gate to the retailers, represents an increasingly interlinked economic, technological, and multiregional production system.[6] This leads to the classical distinctions between agriculture and agro-industry becoming increasingly blurred and the two sectors becoming intertwined.[7]

The role of agriculture, in the narrower sense, declines as a country develops. This structural change has resulted in the marginalization of many farmers in developing countries. However, in many such countries, agribusiness continues to grow as one of the major contributors to export earn-

5 Cf. Lamb (2003).

6 Cf. Le Heron (1993).

7 Cf. Lopez Nogales / Hull (1997, 2).

ings, industrial production, GDP, and employment. Agribusiness' share of GDP and employment rises as countries develop economically, while the share of agriculture declines. Countries such as Taiwan have impressively illustrated that agribusiness can serve as a boosting platform to other industrial developments: Agribusiness can contribute to important increases in both investing surpluses and income in rural areas. Moreover, it can create inter-industry demand and other agglomeration effects; thus, having a powerful multiplier impact.[8]

Agribusiness can lead to **upgrading** since producers can move up the chain of production, producing, or growing more sophisticated products. Of course, this is based on the assumption that technology and knowledge transfer is rendered possible through farmer linkages with more technologically advanced enterprises.

Agribusiness can promote a diversification that is, on the one hand product-oriented, while on the other hand source-oriented. In other words, farmers can grow a wider variety of produce to meet broader demand created by further processing, while also being able to fall back on a more diversified resource base. These two forms of diversifications can protect producers or growers from price fluctuations, while at the same time offering input alternatives to help them overcome problems such as the seasonality of agriculture.

Agribusiness has strong implications on **employment** in developing countries, due to its abilities to reach out to diverse sections of the rural population. Employment in rural areas shows significant multiplier effects with regard to rising income and living standards and has, hence, a substantial developmental impact. Although the positive impact of agribusiness on rural employment creation is not questioned, its exact impact can, unfortunately, not be determined on the basis of available data. Data on the employment shares within rural non-farm employment, and rural non-farm activities show that these account for one-third of full-time rural employment in Latin America, for one-quarter in Asia and West Africa and North Africa, and for 10 percent in Africa. Neither figures for part-time employment or non-farm employment in rural towns are included in this data.

8 Cf. Giovannucci (2003).

Although the latter form of employment is classified as urban, it frequently relies on rural inputs. If rural towns are included in the figures, non-farm employment shares rise to 20 percent for Africa, and about 40 percent for Latin America and Asia.[9] Not all employment figures included are based on agribusiness. However, they can provide an approximate picture on the potential of agribusiness with regard to employment creation.

In terms of **non-farm income**, agribusiness also represents a major source. Experiences illustrate that it contributes directly and indirectly to overall earnings of rural laborers and farm households. For instance, rural household surveys estimate that the proportion of rural income derived from non-farm sources, mostly agriculture-related and agribusiness-related, is approximately 32 percent for Asia, 40 percent for Latin America, and 42 percent for Africa.[10] This data highlights the importance of agribusiness for development policies and in particular to poverty reduction. The poor can also benefit from sources of non-farm income in order to stabilize income during droughts or other situations of low agricultural production. For instance, a study of several villages in semi-arid regions in India found that non-agricultural self-employment and labor market earnings contributed significantly to lowering the income variability in the arid years of the 1980s.[11]

Higher farm incomes, accompanied by increased saving rates, mobilize capital for investment in non-farm activities, which offer important economic alternatives for the rural poor. The increasing incomes of farm households lead to a lot of new income that can be spent on a range of consumer goods and rural non-farm services; therefore, increasing the demand for inputs such as seeds, fertilizers, credits, machinery, marketing, and output processing.

Agro-based production is usually accompanied by intermediate manufacturing sites, which are created in rural areas. These sites process materials before they reach urban areas. They also provide incentives for people to stay in rural areas rather than migrating to cities. Therefore, raising rural

9 Cf. Haggblade / Hazell / Reardon (2002, 16).

10 Cf. Giovannucci (2003).

11 The following arguments are based on Haggblade / Hazell, / Reardon (2002, esp. 29).

productivity, by developing agribusiness can be seen as an effective tool of reducing the pressure of rural-urban migration, among others, through linkages and rising living standards. In addition, a vibrant agribusiness provides a strong incentive for public investment in the development of **rural infrastructures**, particularly in transport systems, electricity, and water supplies. Investments in these areas can reduce transport and transaction costs, improving the interaction between large and smaller players in agribusiness.

In addition, the **linkages** created within a well-functioning agribusiness environment can not only entail creating different job opportunities in rural areas, but can also result in upgrading of firms and its products and processes. Extensive research illustrates that backward linkages, from larger agents to their input suppliers for instance, are especially conducive for technology and knowledge transfers. Processors require high-quality and right-on-time inputs; thus, have powerful incentives to render their suppliers more competitive and to enhance their productivity by providing them with appropriate technology and tacit knowledge. More specifically, alternative techniques of post-harvest handling induced by the linkage driven technology and knowledge transfers can help reduce post-harvest losses, which is a big problem in many developing countries. In the case of Sri Lanka, it is estimated that about 30 to 40 percent of Sri Lanka's agricultural production is lost because of inappropriate post harvest handling.[12]

However, positive effects of inter-sectoral linkages in agribusiness can not be taken for granted. We need to mention that many linkages are promoted by profit-oriented private enterprises. In most cases, social dimensions have no priority on their agenda, leaving the small and poor partners in a relatively vulnerable situation. If, for example, it does not prove profitable for a large firm to continue its operations in a particular region, it will loose no time in moving its production sites, leaving the formerly linked small and poor agents behind. Again, vulnerable groups need support from public and government institutions to prevent being taken advantage of irresponsibly.

12 Interview with experts of the Ministry of Agriculture and Livestock and the Department of Agriculture, see also Kudagamage (1994, 12–14, 16).

It is clear that agribusiness offers numerous avenues for achieving development goals, especially in the rural areas. The fact that agribusiness encompasses aspects like small-scale farmers and infrastructure, clearly unveils its relevance to development. Rural enterprise development is a platform which many developing countries, especially in South East Asia, have successfully built on. However, merely focusing on agribusiness is not enough. Agribusiness policies should be supported by efficient institutions and complemented, for instance, by orientation towards exports.

2.2 The importance of export-oriented agribusiness

In the overall context of structural adjustment policies and a world market-oriented development strategy, developing countries have reoriented themselves towards diverse and demanding export markets. Rapid technological changes, drastic reduction of transport costs, together with new trade agreements have contributed to shaping current international trade. While agricultural growth remains an important catalyst for rural non-farm activities, trade liberalization and an export-oriented strategy offer numerous opportunities for rural regions to capitalize on foreign sources of demand.[13] For our purpose the most important areas we need to consider are the access to a larger market with its advantages; thus, economies of scale, the creation for the demand of new services in the exporting country, the inflow of foreign exchange, and increasing efficiency due to international competition on the world market are considered the most important.

Since 1970 there has been an enormous increase in developing countries' agricultural exports *volume*, yet they have lost 12 percent in the world agricultural market share, measured by the export value.[14] This clearly shows the challenge developing countries face in the struggle against being relegated to the role of suppliers of raw materials and to remain at adverse terms of trade. Declining terms of trade for products with a low level of knowledge-intensity is one of the main arguments for leaving the bulk market and for switching to agro-based products with a higher level

13 Cf. Haggblade / Hazell / Reardon (2002, 2).

14 Brandt, H. (2003).

of value-addition. Although the current trading system, with the protected agriculture and export subsidies in the United States and the European Union, prevents developing countries from receiving adequate market prices and market access for their products, they need to persist in their efforts to catch up with the fast growth and increasing trade of the rest of the world if they want to be able to maintain an important source of growth.[15] The need for upgrading their production and marketing chains becomes even more evident if one considers that even in developing countries both urban and rural consumers are increasingly having similar consumption patterns as consumers in more affluent countries.[16] An export-oriented agribusiness goes beyond a competitive agricultural sector, including the processing and service sector, thus, has the potential to improve a country's export competitiveness.

A number of additional issues are important to understand the changing architecture of agricultural trade, such as the increasing role of processed and convenience food and of multinational corporations and supermarkets. Therefore, being able to detect in advance what the powerful agents expect, i. e. gaining access to information is crucial for developing countries' competitiveness in agriculture. In Chapter 5 we discuss the aspect of knowledge transfer and transfer of important information in more detail and thoroughly analyze value chains.

Being able to sell products on the world market, opens up a series of additional opportunities for developing countries, compared with an inward-oriented development. The demand on the world market is greatly diversified, allowing for large numbers of niches to be detected and catered to. This provides incentives for producers in developing countries to embark on diversification strategies, which may decrease their vulnerability to price fluctuations that affect specific products. In general, prices on the world market are more stable than on local markets, since the effects of regional production fluctuations are buffered. Agribusiness offers local producers an avenue by exporting their produce, in which they have a

15 Cf. Giovannucci (2003).

16 This idea is further evolved when talking about the increasing importance of standards on different markets in Chapters 4 and 5.

solid comparative advantage, but not necessarily demanded in sufficient quantities in the local market.

Exporting activities generally require a series of specific support services. For example, many exported commodities must be preserved during the period, sometimes several weeks if sea-freight is used, until they reach consumers. Preservation may involve anything from canning and atmosphere-controlled containers to specially designed packaging all require processing or other post-harvest activities. Also, the import regulations in high-income countries often impose strict requirements in terms of local food safety and sanitary control. Meeting these requirements usually demand special processing, packaging, testing, and certification, which have to be done locally. Retailers and consumers in high-income countries demand that imported food meet high standards for quality, uniformity, and presentation. Chapter 4 presents a detailed survey about the importance of standards as new challenges for international markets.

High-income consumers are often willing to pay extra for convenience, such as cutting, wrapping, and pre-cooking, reducing the time required for meal preparation. Provided that this additional preparation is labor-intensive, it is often economical to carry out these post-harvest activities in the exporting country. In our case this would be the local developing country.[17]

Furthermore, being able to export allows local producers to benefit from important information channels. Among others, local producers are able to learn about new trends. And then they can adjust accordingly. This access to information can also be promoted through the linkages described in Section 2.1. However, a well functioning mechanism for knowledge transfer is required, as outlined in Chapter 5. Exporting firms are in contact with many other agents, which offer more opportunities for the exchange of information, than a production process aimed at catering solely to local markets.[18]

17 Cf. IFPRI (2002, 6–10).

18 Interview with T.P.L. Raj from Lanka Organics.

Exports are a vital source of foreign exchange for developing countries. The foreign currencies that are received as payment for the exports have numerous important implications, such as a means for purchasing imports from the world market and for national central banks as reserves. Thus, it is easier for producers in agriculture to purchase inputs, such as fertilizers and seeds, at world market prices by using foreign currencies.

One by-product of an opening up to world trade is "de-protection". This has serious implications for developing countries, which often still have highly protected agricultural markets. Reducing protectionist trade barriers exposes local producers to international competition. Under certain circumstances this may carry benefits for developing countries. Competition urges producers to be more efficient in order to succeed at the international level and reap the potentially high benefits. In addition, being in the export-business is beneficial for local producers in terms of local and international reputation and recognition. For example, a firm from a developing country will, in many cases, find it easier to obtain credit and financial support if it is involved in exporting.[19] Nonetheless, it is well known that an open trade policy (i. e. unprotected sectors) can potentially have horrendous consequences for some local producers in developing countries, who simply are unable to compete with the powerful, knowledge intensive and capital intensive agents from industrial nations.

The advantages from being involved in the global trading system are numerous. It would greatly support the benefits that can be obtained by building a competitive agribusiness sector. Nevertheless, the global trading system, with its framework of tariffs and quotas, health and quality standards as well as government policies all have powerful implications for the overall success of agribusiness. This system is vulnerable to external shocks, such as world market price and demand fluctuations. In other words, developing countries depend heavily on an open trading system to be able to build on a solid export strategy, so as to benefit from the above mentioned factors. This is especially true for agriculture products in the light of the protected markets of industrial countries.

19 Interview with T.P.L. Raj from Lanka Organics.

2.3 A trade-off between competitiveness and socially inclusive growth in agribusiness?

One of the long-lasting controversies in the search for adequate development paths has been the debate on export-oriented agribusiness. Years before structural adjustment policies induced many developing countries to embark on outward oriented strategies, Ernest Feder published a study in 1977 on changes in the agrarian structure of Latin America. He denounced the intrusion of large foreign capital into the rural areas for mere profit by export agriculture and gave it the meaningful title "Strawberry Imperialism" (Feder 1977). Since then, debates have not ceased about whether promoting export oriented agribusiness is a desirable path to higher growth rates or not.

Authors with a pure economic approach highlight the potential benefits that are brought forward for poverty reduction by increasing trade in agricultural products. Researchers with a political economy perspective are much more skeptical. They stress the risks of small farmers to be marginalized or completely substituted by commercial farms or plantations. In addition, the income distribution tends to become more skewed than before. Empirical evidence draws a heterogeneous picture of the trends under different socio-economic settings (Berry 1998, Stamm 1997). This calls for a detailed and situation-specific analysis of the economic benefits and possible social costs of agribusiness based growth.

There is, however, no necessary link between export orientation and marginalization of smallholders. With regard to many high-value crops, empirical evidence indicates that on the production stage, economies-of-scale are not significant, while small farmers may even have some special advantages. Carter / Barham / Mesbah (1996) highlight the importance of "interactive labor" when producing high-value crops for demanding markets. The achievable quality of a crop depends to a large extent on continuous and well founded decisions that the workers make, e.g. regarding the most favorable moment for harvesting fruit. Smallholders and their family members are intrinsically and personally motivated for this complex task, while commercial farms and plantations have to carry rather high control costs or implement special incentive systems to achieve the highest possible quality. This confirms why in many non-traditional exports, smallholders can and do compete with larger holdings even under

difficult socio-economic conditions, like in the highlands of Guatemala (Hamilton / Fischer 2003).

While smallholders may obviously compete in agricultural production, they definitely face problems when processing and/or exporting their produce. The small scale operation and the lack of capital impede the smallholder to invest in necessary installations for post-harvest treatment, such as processing and packaging. In addition, these factors often also raise unit prices above feasible levels.

One of the options that was widely discussed (mainly during the 1970s and part of the 1980s) as a promising instrument to overcome these problems was the integration of farmers into **co-operatives** or other forms of associations. Co-operatives were seen as a means to combine economic viability with a high degree of participation, and self-determination by the rural population.[20] The concept of the "co-operative" comprises a wide range of different organizations, from informal ways of mutual self-help to highly complex institutions, from groups mainly motivated by religious motives to profit-oriented large-scale companies for the processing of agricultural produce (e.g. sugar refineries, wineries), and from independent to state-dominated organizations. What all these concepts have in common is that they try to realize economies-of-scale. They are either related to the backward and forward market relations (service co-operatives) or to the production and processing of agricultural produce (production co-operatives).

For a long time the concept of co-operatives was highly charged by an overwhelming ideological debate on alternatives to a purely market-based development path. This was especially true with regard to co-operatives formed by smallholders or former landless rural people in developing countries. Co-operativism was seen as an important foundation of a "third way" between capitalism and communism. Some of the most charismatic leftist third world governments in the 1970s and 1980s put co-operatives on center-stage of their development concept (e.g. the Nyerere's government in Tanzania or the Sandinista government in Nicaragua).

20 Cf. e.g. Hyden (1982) and Hanel (1984).

However, in the 1970s an important line of co-operative research already focused on the failure of co-operative models in different parts of the third world. A series of reasons for the observed setbacks were discussed. For instance, organizations often imposed from above and outside did not correspond to the social structures and traditional interactions within the target groups. In many countries, co-operatives were initiated and highly controlled by state authorities, leading to a lack of ownership by the farmers and to conflicting goals between the development targets of the governments and the concrete economic and socio-economic ambitions of the individuals.[21]

A similar problem arises when the co-operative management does not apply the performance criteria (e.g. with regard to the quality standards for commercialized or processed produce) that would be required for the overall efficiency of the system.[22] Finally, there is a latent conflict between the capabilities of the co-operative management and the ownership of the members with regard to the organization: When the management stems from the membership or at least the local population, members will usually perceive the co-operative as "their own" and they will see themselves capable of understanding and controlling the relevant processes. Under these conditions, however, the capabilities of the co-operative may be insufficient to handle the challenges of modern production and marketing structures, especially when talking about complex and competitive agribusiness. Yet, when the co-operative assigns management tasks to external managers, the members may feel a decrease in ownership. Further, it may increase the evident bias between the information controlled by management and members. Finally, it can indeed lead to problems of moral hazard within the membership.

Today, farmers' co-operatives and other forms of producers' organizations are still seen as one possible way to integrate smallholders into market-oriented agribusiness[23] However, today cooperatives are only seen as one of several possible options and do not receive much attention in current

21 Cf. e.g. Stamm (1990).

22 Cf. Morera (1996).

23 Cf. e.g. Rondot / Collion (2001).

debates. More flexible and market-based models, such as Forward Sales Contracts (FSCs), are considered more promising options (see Section 6.2.1). Another favorable option is the integration of farmers into value chains formed by medium to large companies through contract agriculture, so-called outgrower schemes (6.2.2).

3 The value chain approach: analytical framework for the study on Sri Lanka's agribusiness

One useful analytical framework to understand the manner in which economic agents and countries are integrated in international production and distribution processes is **the value chain approach**. A value chain is a metaphor to describe the full range of activities that are required to bring a product or service from the original concept to the final consumer by going through the different phases of growing and processing.[24] The VCA does not only focus on the flow of products and services (tangible assets) along the chain, but also incorporates an analysis of the flow of intangible assets (i. e. information and knowledge) and of power relations within the chain.

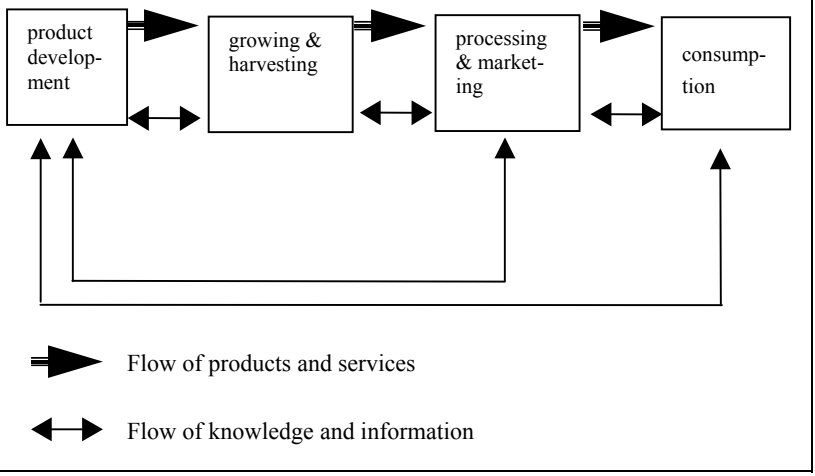
An analytical framework is crucial to understand the ways in which firms and countries are integrated into global production and distribution processes in two respects: First, even when trade is liberalized, developing countries do not automatically gain access to developed countries' markets. Access to these markets has become increasingly dependent on participating in global production and distribution networks of lead firms[25] almost exclusively based in developed countries.[26] By analyzing the function of these networks, the value chain approach offers important insights considering the question how developing countries can gain access to international markets. Second, there are many developing countries whose

24 Cf. Kaplinski / Morris (2001, 4); Schmitz / Knorringa (2000, 180).

25 Lead firms are those firms that govern value chains due to their command over specialized knowledge, technology or marketing capabilities. We perceived the traditional concept of lead firms to be inadequate for the context of Sri Lanka's agribusiness. For more details, see Chapters 5 and 7.

26 Cf. Schmitz / Knorringa (2000, 178).

Figure 1: Basic concept of a value-chain in agribusiness



share in world exports has increased significantly, while the share of value-added accruing to the country has not.[27] The experience of these countries suggests that mere integration into international markets is not sufficient to ensure sustainable economic growth. The key factor rather lies in the way in which countries are integrated into the global economy. By examining the distribution of incomes and power relations in international production processes, the VCA is a useful starting point to understand how developing countries can increase the benefits arising from access to international markets.

This chapter focuses on the following four aspects:

(1) The way in which the VCA differs from conventional approaches to economic analysis;

(2) The three analytical dimensions of the approach, i. e. the input-output structure, governance and embeddedness;

27 Cf. ITC (2002), pp.1–2.

(3) The concept of rent helping to explain the income distribution among agents in value chains;

(4) The question of how developing countries can capture a higher share of value-added in global production processes.

3.1 Specific advantages of the value chain approach for the analysis of economic relations and processes

In recent years, the number of studies analyzing globalization from the perspective of 'value chains' has increased significantly.[28] The increasing popularity of the value chain approach can be attributed to three major strengths of the concept. First, while conventional economic studies tend to focus on a single economic sector, the value chain approach deals with the dynamic linkages between productive activities that cut across the boundaries of economic sectors and branches.[29] The significance of such an inter-sectoral perspective can, for instance, be illustrated by the agricultural sector: In this sector the activities with higher value-added are increasingly found in the genetics of seed design and branding of products rather than in the primary sector itself. The VCA, hence, promises to take economic studies a great deal further than traditional models of economic analysis.

Second, the VCA shifts our attention to linkages *between* firms. It consequently overcomes the narrow focus of the firm-specific analysis of much of the traditional innovation literature. As innovation increasingly depends on the ability to combine specialized knowledge of different fields and to bring newly created products faster to the market than competitors, new products are developed in interaction and sometimes close collaboration with suppliers and customers.[30] Therefore, it appears to be insufficient to explain innovation processes and competitiveness by restricting our examination to processes occurring in single firms.

28 On the evolution of the value chain approach see Stamm (2004, 9–15).

29 Kaplinski / Morris (2001, 2).

30 Cf. Kaplinski / Morris (2001, 2); Altenburg (2003, 74).

Third, in contrast to studies done only on conventional industry, the VCA incorporates an explicit international dimension. Nowadays it is crucial to consider the implications when making economy decisions on how national resource allocation will affect the international dynamics of returns from certain productive activities. Hence, the VCA appears to be much more suitable to identify economic potentials than studies that focus on conventional industry. This explains why the approach found its way from academic debates into policy discussions. The International Trade Center (ITC), for instance, regards the VCA as the best starting point to formulate comprehensive economic strategies.[31]

3.2 Dimensions of value chain analysis

The VCA is a multidimensional analytical framework with high complexity. To structure the analysis and capture the most important features of value chains, we will focus on its three main dimensions: input-output structure, governance structure, and embeddedness of agents in value chains.

3.2.1 Input-output-structure

The **input-output structure** of a value chain describes the linkages between products and services in a sequence of value-adding economic activities.[32] Thus, it refers both to tangible (raw materials, semi-processed goods) and intangible (know-how) goods. Due to the flow of intangible assets, the integration into value chains can grant enterprises from developing countries access to knowledge and technology of developed country markets. If the access to intangible assets attained through value chain integration is used as a foundation for local learning and innovation processes, countries might achieve new levels of economic performance and productivity.[33]

31 Cf. Morris (2002).

32 Cf. Gereffi / Korzeniewicz (1994, 96–97).

33 Cf. UNIDO (2003), Chapter 6.

In the real world, value chains are much more complex than shown in Graph 1. In general, the metaphor of a vertical chain is too simplistic, as horizontal interactions (e.g. in the field of logistics, design, and extension services) are not less significant for creating a product or service than vertical interactions. Rather, the smooth functioning of interactions in the **vertical linkages** of a chain depends to a large extent on the quality of the products and services provided by **horizontal linkages**. The picture of the manifold links in a value chain becomes even more complex when it is taken into consideration that intermediary producers typically participate in a number of different value chains.

The VCA clearly aims at throwing light on the various linkages that feed into the production and distribution of a service or product and at considering the broader institutional context of these linkages. Yet, trying to include all horizontal and vertical activities in value chain analysis would dilute the analytical clarity of the concept. Hence, it would be at cost of a simple analytical framework, which is the best way to provide a tool for isolating key variables. In addition, value-addition and the transfer of knowledge and information first and foremost occur in vertical interactions. As these are key questions of our research, the present study will **focus on vertical interactions**. That does not exclude examining horizontal linkages from the study per se. Yet, we will consider horizontal interactions only if they influence:

— the access to value chains,

— the competitiveness of linkages and

— the chance to start activities that provide higher income.

3.2.2 Governance structure

The **governance structure** of a value chain can be defined as the power relationships that determine how financial, material, and human resources are allocated and flow within a chain.[34] Thus, power asymmetry is the central aspect of governance and includes the ability of firms to set rules

34 Cf. Gereffi / Kozeniewicz (1994, 97).

and standards.[35] In the analysis of value chains that include activities in developed and developing countries, governance is essential because it is connected with the ability to acquire and capture a higher share of value-added and, thus, is an important determinant of income distribution within a value chain.

The governance structure is essential in coordinating transnational production systems. There are two dimensions of governance that have to be considered: the **internal governance**, which refers to agents within the chain, and **external governance** structure, which refers to agents outside the chain, who have the power to set rules and standards.

A governance structure within a value chain may have to be established to transmit information about certain parameters, which define the production process and enforce compliance. Four parameters are particularly relevant:[36]

— The first parameter is product definition. Product compliance can be monitored and enforced through inspection and testing.

— The second parameter is the definition of production processes. How should a good be produced? Process standards may not be evident in the product itself; therefore, process controls are necessary.

— The third parameter is the definition of time horizons.

— The fourth parameter is the definition of quantities.

Although prices are usually determined by the market, a target price might also be set by the lead firm of a chain. This can especially be the case when the lead firm is the major buyer of a specific supplier, and when the lead firm is facing fierce price competition. In this case, major buyers might only be willing to enter into a long-term relationship with their suppliers if they guarantee a fixed price. Transaction costs are the main reasons why companies are not following the conventional wisdom, which proposes to choose the supplier that can produce the required quality at the lowest price. If there is no real price advantage for the buyers when they add the additional transaction costs to the purchasing price, it would seem

35 Cf. Kaplinski / Morris (2001, 29).

36 Cf. Humphrey / Schmitz (2002, 6 ff.).

to be more attractive to set competitive prices and ask the suppliers to meet these prices. This might, for example be the case, when a product has to be newly designed and there are companies in the supply-base that are able to fulfill this task.

3.2.2.1 Internal governance and coordination of value chains

There is an ongoing academic discussion about the definitions and differences of governance and **coordination**. While many authors, e.g. Gereffi, also use the term coordination to describe governance of value chains, other authors highlight the difference between governance and coordination. We define coordination as the management of the flow of tangible goods at the nodes of a chain; it thus refers to the *implementation of rules and their monitoring*. According to Kaplinski and Morris (2001, 29 f.), coordination can be viewed as a part of governance. They distinguish three forms of value chain governance: legislative governance (setting the parameters governing the value chain), judicial governance (coordination of the conformance to the set parameters), and executive governance (providing assistance to the value chain participants in meeting the operating rules). Coordination is not necessarily connected to power asymmetries. While coordination is an essential function of every kind of value chain, not every chain has a governance structure. Moreover, the coordination function does not always have to be exercised by the same firm as the governance function.

In his initial work, Gereffi (1994) distinguishes between two types of value chains: producer-driven and buyer-driven value chains. In both of the two chain types, the key parameters are set by large companies based in industrialized countries that play the central role in controlling the production system, either by dominating crucial technology (producer-driven) or market access (buyer driven). Humphrey and Schmitz (2002) point out that governance is not a necessary characteristic of a value chain. Consequently, when governance structures are lacking, the distinction between buyer-driven and producer-driven chains is not a useful analytical framework.

Another criticism of the value chain approach, as elaborated by Gereffi, is that power within the chain is not necessarily concentrated around one

particular agent.[37] There seems to be a strong possibility that chains are in fact "multi-polar-driven", what may lead to different options for upgrading.[38] Following this criticism, Gereffi further developed the analytical framework by taking into account that many value chains are characterized by coordination through market mechanisms rather than coordination through governance.[39] The fact that coordination through market mechanism is often not enough raises the question why in these cases the solution is not always vertical integration. The framework explains prevailing forms of governance and tries to predict how governance patterns are expected to change in accordance with three influencing factors:

Complexity of transaction: According to transaction cost analysis, firms seek to minimize their transaction costs. These costs are especially high when complex and customized products are produced in different firms which have to coordinate their activities. Thus, the theory suggests that market coordination works well for standardized products. But for complex products vertical integration is favored, because it is necessary to transfer complex information and knowledge. Research has shown that the theory is not verified in real-world business relations. For example, the auto industry is highly fragmented, although the product is a very complex one. One reason is that technological capabilities of firms are limited and acquiring know-how is costly. Therefore, firms may choose to purchase complex products from other companies in spite of the transaction costs involved. Other reasons involve the aspects of demand uncertainty and investment in specific assets.

Ability to codify transactions: Technical standards are one important way to reduce the complexity of a transaction and the need for transaction specific investments. If widely recognized technical standards are prevailing, the need for vertical integration is reduced.

Capabilities of the supply-base: One reason for governance or vertical integration is the need to reduce the risk of potential losses arising, for example, from products that do not meet the quality requirements. This

37 Cf. Raikes / Jensen / Ponte (2000, 22).

38 For a definition of *upgrading* and further explanations see Section 3.2.5.

39 The following paragraphs are based on Gereffi (2003).

point is especially important when product quality cannot be observed directly. As this risk is decreasing with rising capabilities in the supply-base, the need for governance or vertical integration is also decreasing.

The following table summarizes the analytical framework:

Table 1: Key determinants of global value chain governance types

Governance or coordination type	Complexity of transactions	Ability to codify transactions	Capabilities of the suppliers
market	low	high	high
modular	high	high	high
relational	high	how	high
captive	high	high	low
hierarchy	high	low	low

Source: Gereffi / Humphrey / Sturgeon (2003), 14 f.

In a value chain that is coordinated by pure **market-relations**, buyers and suppliers do not develop a close relationship. As the cost of switching to a new partner is low for all agents, there is a low degree of transactional dependence.

Modular value chains are characterized by high complexity of transactions, but as it is easily possible to codify specifications even of complex products, the interaction is simplified. This is mostly the case when a product consists of many complex and highly functional components that comprise "modules". Suppliers produce these components according to a specification that is provided by the customer. In this case, governance is not a necessary feature of the value chain if the capabilities of the suppliers are high. The main difference to marked-based relationships is the intense flow of information between the agents.

In **relational value chains**, the complexity of the transactions is high and the mutual dependence of the engaged agents is regulated through reputation, social and spatial proximity, family, and ethnic ties etc. The difference with regard to modular chains lies in the ability to codify transactions, which is low in relational chains. Consequently, tacit knowledge

becomes a key determinant, and the relationship has to be based on trust. As products are complex, the capabilities of the suppliers have to be high.

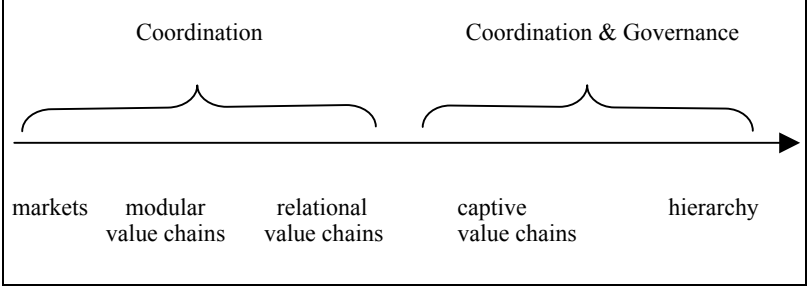
Modular and relational value chains can both be characterized by an even and close co-operation between firms, based on sharing competencies. The need to collaborate may arise from firm-specific know-how regarding product development and/or production and scheduling.

Captive value chains are the type that probably can be found mostly in relationships between small developing country firms and larger international buyers. The powerful lead firm exercises a high degree of monitoring and control. This is necessary because of high complexity of the product and low supplier capabilities. The low supplier capabilities are the only difference to modular value chains. Switching costs are high, which leads to a high degree of dependence. Gereffi's initial concept of producer-driven and buyer-driven chains fits best into the context of captive relationships.

When the lead firm takes direct ownership of the operations in the chain (vertical integration), the relationship is based on **hierarchy**. The complexity of the product requires a strong control mechanism, because the ability to codify technical information is low as well as the capabilities of the supply-base.

Figure 2 visualizes the degree of coordination and governance between markets and hierarchies:

Figure 2: Degree of coordination and governance



When moving from markets to hierarchy, we find that coordination increases. Modular and relational value chains are coordinated through firm-level activity and/or technical standards, but there is no power asymmetry

between the agents. Therefore, governance, as defined earlier, is not a feature of the chain. In captive value chains, governance clearly is an issue, and even more in hierarchical relationships.

One aspect of power asymmetries can also be found in information asymmetries. A lead firm can secure its position in the chain because of superior knowledge and access to information. An important tool to change the governance structure of value chains can consequently be the reduction of information asymmetries by building up information networks and platforms.

3.2.2.2 External governance structure

As already mentioned, external governance refers to agents external to the chain, who have the power to set parameters within a value chain. The role of internal governance as described in 3.2.2.1 is loosing importance to the extent to which standards are set by third parties outside the chain.[40] Two dimensions of external power appear to be of particular relevance:[41]

Institutional power can be exercised by local and national institutions, international inter-state agencies (EU, ASEAN, Nafta), international organizations (UN, WTO, the Bretton Woods Institutions), and international credit rating agencies. The agricultural sector is a highly regulated one. Consequently, governments and other regulatory agencies exercise substantial power. Health safety requirements are particularly important.

Collective power refers to the actions of collective agents who seek to influence companies. This influence is getting more important as information technology rises. This helps agents build up networks and articulate their interests in a more coordinated way. In addition, collective agents reach a broad public through the Internet. Some examples are trade unions, employer associations, NGOs, or other human rights organizations.

In international agribusiness value chains the role of quality aspects has risen enormously during the last decade. This development can be attrib-

40 Cf. Hatakoy (2003, 12).

41 Cf. Henderson et al. (2001).

uted to higher consumer awareness with respect to quality of food and food safety. Furthermore, environmental and social standards are gaining importance. Producers and exporters who want to have access to the markets of industrialized markets must comply with the required standards.

Standards are set at three levels: **international standards** are legally binding and represent the basis for harmonizing food standards. They can be complemented and tightened by **national standards,** which can be set by central governments due to scientific justification. International and national standards are part of the external governance of value chains, while **private standards** that are set by companies, are subject to internal governance.[42]

3.2.3 Embeddedness of value chain agents

The social, cultural, and institutional fabrics from which firms originate and in which they are embedded, influence their strategies. They also are factors that enhance or hinder the formation of value chains. Henderson et al., hence, argue that in order to fully capture the dynamics of global production and distribution processes the specific contexts in which firms are embedded should be included in value chain analysis.[43]

Clearly many factors influence the degree to which firms are linked in the global economy: history, institutions, geography, and the social context. Embeddedness remains, however, a vague concept, which refers to all sorts of involvements of firms. It bears the danger of introducing too many variables and complexities in the value chain approach, limiting its usefulness as an analytical tool. In addition, embeddedness refers to 'soft items' which escape direct measurement and are even difficult to grasp in qualitative analysis as these factors are often taken for granted by interview partners.[44]

Therefore, embeddedness is included in this study only in a simplified manner. We consider two dimensions of embeddedness. When analyzing

42 Nadvi / Wältring (2002).

43 Cf. Henderson et al. (2001, 19), Oinas (1997), Halinen / Törnroos (1998).

44 Cf. Oinas (1997, 30).

to what extent factors of embeddedness enhance or hinder the formation of value chains and upgrading strategies of firms. First, there is the notion of **territorial embeddedness**. On the one hand, territorial embeddedness includes all factors that help to explain the spatial distribution of value chains. These are first and foremost *location factors* influencing outsourcing and investment decisions; therefore, have a direct impact on the question of where income and employment are created. To categorize location factors, ranging from wage and skills levels and sector policies to climate conditions to political stability, we distinguish between:

— location factors on the macro-level, including specific economic policies, trade regimes and labor markets and

— location factors on the meso-level, such as the existence of institutions for research and development or local clusters.

On the other hand, territorial embeddedness refers to the *general institutional setting* in which firms are embedded. Although the institutional setting may not have a direct impact on investment and outsourcing strategies, it can enhance or constrain the integration in value chains and can have significant implications for the economic and social outcomes of firms' activities. Examples are the nature of property rights, existing ownership structures, and varying capacities for state management.

Second, there is the notion of **social and cultural embeddedness**. Social and cultural embeddedness refers to the behavior of firms and agents within firms that cannot be fully explained by rational profit-seeking. Economic agents are embedded in social networks and trust relationships. Once the social surrounding of firms is taken into consideration, it becomes evident that goals, such as social approval, status, and power can be as important as profit-maximization. The factors on which social approval, status, and power depend may differ in different societies. Moreover, value chains link societies, which sometimes exhibit significant variation with regard to their priorities vis-à-vis profitability, growth, and economic development.[45]

45 Cf. Henderson et al. (2001, 14).

3.2.4 Barriers-to-entry, rent appropriation, and income distribution

Lead firms based in developed countries tend to concentrate on those activities that generate most profitable returns. On the other hand, suppliers in developing countries mostly conduct lower value-added activities.[46] This pattern can be found irrespective of whether the chain belongs to high-value or lower-value market segments. An important analytical vehicle to understand the patterns of return in value chains is the concept of **rents**.

In this framework, rents arise when rates of return are higher than required to meet production costs due to access or control over scarce resources. Rents, hence, accrue on the basis of scarcity and barriers-to-entry. One useful analytical distinction between different types of rents is developed by Kaplinski and Morris. They distinguish between:[47]

— Rents based on *firm-level* activities, such as the command over specialized technology, access to better trained labor, or possession of particular marketing capabilities;

— Rents based on *chain-level* actions resulting in enhanced links between firms of the chain;

— Rents based on *external factors*, e.g. rents based on resources (asymmetric access to scare natural resources or high-quality raw-materials) or provided by parties external to the chain (government policies, such as protectionist trade policies, more advanced infrastructure, access to finance on better terms than competitors, etc.).

While agents in market segments with low **barriers-to-entry** face intensive competition and are often engaged in a "race to the bottom", agents in segments with high barriers-to-entry are able to limit competitive pressure and to sustain income growth. To put it in short terms, the higher the barriers-to-entry, the higher the levels of profitability.

46 Cf. ITC (2002, 1).

47 Cf. Kaplinski / Morris (2001, 79).

A major trend in the world economy is the decline of barriers-to-entry in factor-cost based production processes. This trend has been reinforced since China, with its abundant supply of labor and low-wage structure, has entered the world market in the late 1980s. As a consequence, a shift of rents has occurred from production activities to knowledge-intensive activities outside of the production process, such as design, branding, and marketing. Knowledge-intensive activities are mainly conducted in developed countries because they require an adequate level of human skills, technological competence, and research infrastructure. The emergence of barriers-to-entry is a dynamic process that is also highlighted by a shift of rents from factor-cost based activities to knowledge-intensive activities. To sustain high levels of income, economic agents should, consequently, seek to continuously acquire specialized knowledge, which is difficult to replicate.

To sum up, the concept of rent provides an important analytical vehicle to explain why some activities in value chains are well-rewarded, while others are not. By identifying the nature and extent of barriers-to-entry, value chain analysis enables us to understand the dynamics of the distributional outcomes in global production processes. Yet, from the perspective of developing countries, the key question is how to enter chain activities which secure a higher share of value-added.

3.2.5 Upgrading as a strategy to capture higher shares of value-added

Low productive capabilities and limited technological competencies in many developing countries suggest that these countries are confined to chain activities with low barriers-to-entry and small shares of value-added. This view is, however, much too static. The experience of electronic companies in East Asia and garment producers in Mexico show that enterprises in developing countries can succeed in reaching higher levels of capability in global value chains. Once these businesses from East Asia and Mexico had integrated themselves into global value chains, they made a transition away from low-skilled activities to original equipment manu-

facturing, and finally entering into their own design and brand manufacturing.[48]

The experience of these producers highlights that linkages in value chains can serve as a channel for the transfer of knowledge and skills. To utilize this potential, suppliers in global value chains have to undergo a process of purposive learning. Yet, learning and developing the capacity to innovate is not sufficient to climb up the capability ladder in value chains. In addition, the rate of innovation and improvements has to occur at a faster pace than that of competitors. Thus, innovation and the continuous improvement of products and processes have to be placed into a relative and dynamic context. **Upgrading** is referred to in literature as stepping onto 'higher levels' of value chains.

The concept of upgrading – as distinct from innovation – explicitly recognizes relative endowments, and hence the existence of rents. In general, we distinguish between four different types of upgrading:[49]

— *Process upgrading*: improving internal processes so that they are significantly better and more efficient than those of rivals;

— *Product upgrading*: improving old products or developing new ones;

— *Functional upgrading*: increasing one's own share of value-added by changing the mix of activities conducted in a particular link or moving the location of activities taking place in other links of the value chain;

— *Chain upgrading*: moving to a new value chain or extending the links of a particular chain through innovation.

All forms of upgrading can occur both on the level of an individual firm and in the relationship between different firms. While upgrading processes are first and foremost studied on the firm-level in literature, this study will also examine upgrading processes on a country-level, in the case of functional and chain upgrading. Functional upgrading on a country-level occurs, for instance, when national companies enter activities which used to be conducted abroad. From the perspective of local suppliers, it may not

48 Cf. UNIDO (2002, 105).

49 Cf. Kaplinsky / Morris (2001, 38); Gereffi (1999).

matter whether processing firms buying their products are national or foreign companies. In some instances, they might even prefer to sell to foreign companies. Yet, from a country-perspective, this has significant implications as it determines the share of value-added that accrues to the national economy. This also applies to chain upgrading: Whether branding activities occur abroad or in the country usually makes no difference for small-scale farmers, but it makes a difference for the country.

The policy recommendation that can be derived from value chain analysis appears to be rather clear. At first, developing countries should enter global value chains at the level of their technological competence. Subsequently, they should pursue an upgrading strategy by moving to activities where barriers-to-entry prevail. This means, to engage in an upgrading process, which begins with process upgrading, then moves to product upgrading, from there to functional upgrading, and finally to chain upgrading.[50] By pursuing this strategy, developing countries will change distributional outcomes of global production processes towards a structure more favorable to them. Equally important, they will ensure a more sustainable pattern of growth as local firms enter activities in which they are more difficult to replace. This is the case as the competitiveness of firms performing more sophisticated and skill-intensive activities is not solely based on low-factor costs.

It is, however, less clear how this policy recommendation can be put into practice. Each upgrading step is a complex process. Considering international quality and production standards prevailing in global value chains, for many developing country firms mere access to value chains is an objective difficult to achieve. In addition, little is known on how and to what extent knowledge transfers and learning processes occur along value chains. While lead firms often support their suppliers with regard to process and product upgrading, they are much more reluctant to support functional upgrading. In some cases, they even resist such efforts, because they see their own competitive advantage and sources of income threatened. This study aims at throwing more light on the question of how access to global value chains and upgrading strategies of firms from developing

50 Cf. e.g. UNIDO (2002).

countries can be promoted by governments and donors by analyzing agro-based production in Sri Lanka.

4 Sri Lanka's export oriented agribusiness: structures, challenges and opportunities

Since Chapter 2 discusses the potential role agribusiness plays in the development process and Chapter 3 outlines the conceptual approach applied in our study, the following chapter now analyzes the international context for the development of a competitive agribusiness sector. It focuses on the special role agribusiness plays in the context of Sri Lanka and the links it has to international markets. It also looks at the potential of Sri Lanka to respond to the increasing challenges and to using agribusiness as an important pillar for its future development.

4.1 Structural changes on global markets: opportunities and challenges for Sri Lanka

Global markets for agro-based products are changing quickly, giving rise to important opportunities, but also to significant challenges for producers in developing countries. On the market side, **opportunities** for value addition and export expansion are generated chiefly by the following trends:

— The demand in large markets is becoming more diverse and consumption patterns increasingly globalized. Consumers in industrialized countries are increasingly looking for non-traditional foodstuff, from "exotic" fruits and spices to ready-to-eat meals related to Mexican, Thai, or Chinese cuisine.

— Once the consumer gets used to a non-traditional fruit or vegetable, he or she tends to demand it during the whole year, giving rise to seasonal "windows of opportunities" for producers located in different climatic zones.

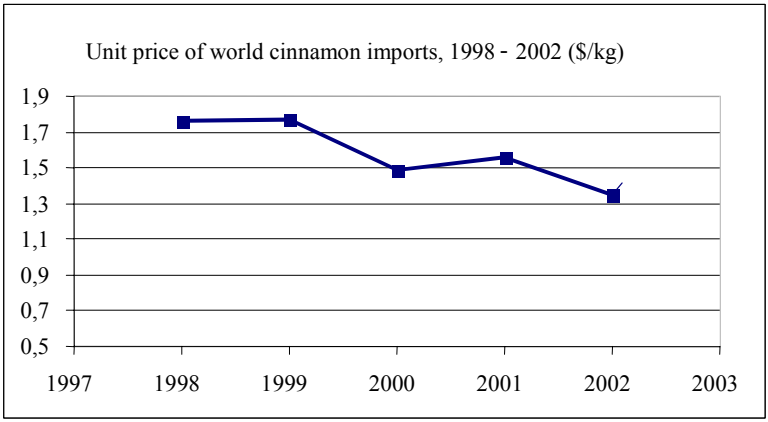
— Demand for value-added products is increasing rapidly. Important examples are pre-processed and packaged vegetables or other convenience food.

The **challenges** countries like Sri Lanka face can be summarized as follows:

— On the one hand, competition is growing on the supply-side. New suppliers are pushing hard on to global markets, especially with agricultural goods. Based on relatively low labor costs and large scales, countries like Vietnam or the Philippines are increasingly penetrating international markets with their agricultural produce, putting severe pressure on prices.

— At the same time, the demand-side becomes increasingly challenging. Trends recently show that OECD and other economies demand a much broader variety of products, special packaging designs, and always higher quality standards. These high-end markets allow for greater value-addition, however, barriers to entry are also higher. In addition, it can be assumed that the majority of requirements first seen in industrialized countries will soon be adopted by non-OECD countries.

Figure 3: World market prices for cinnamon



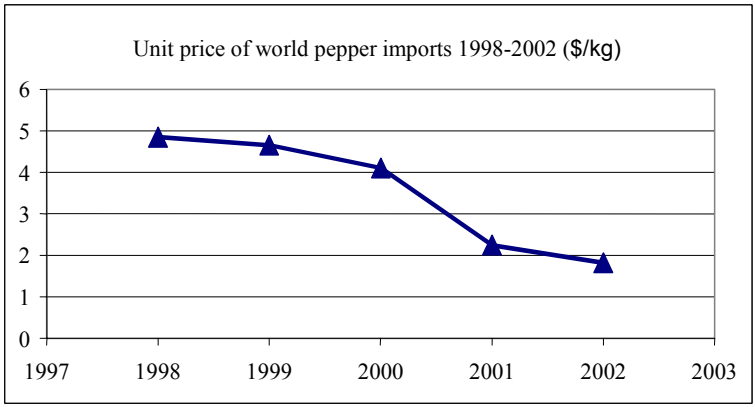
Source: International Trade Centre, Product and Market Development, 2004

This structural change in Sri Lanka signifies both a threat due to increasing competition in food commodity or bulk markets, to which it has catered to in the past, but also provides an opportunity to cope with the higher barriers-to-entry and achieving competitiveness to supply more sophisticated markets.

Value chain management has to be improved in two ways in order to tackle the two-fold structural change and increase Sri Lanka's competitiveness. First, requirements of the demand-side, i. e. on behalf of the end-consumers, processors, or retail companies, have to be given as inputs into the chain. These requirements have to be passed upstream as valuable knowledge. Second, producers have to be able to respond to this information. Goods with the required quality standards, taste, design, etc. need to be grown or produced, and then delivered into the chain.

Prices of several agro-based commodities have fallen over the past years, and this is highly relevant for Sri Lanka. This is shown in Figures 3 and 4. Sri Lanka has difficulties to cope with this price competition since it cannot produce with similar economies of scale as important competitors do.

Figure 4: World market prices for pepper



Source: International Trade Centre, Product and Market Development, 2004, Fig. 2, xxiv

In addition, Sri Lanka has higher costs of living than competitors and, thus, higher labor costs. In sum, Sri Lanka will have even more problems in the future if it continues to rely on price competition of bulk produce.

Meanwhile, the trend towards higher quality products with more sophisticated specifications opens new opportunities for Sri Lanka if the country is able to meet these new and increasing requirements. Parts of these requirements refer to **services** delivered around the product. In many cases certain minimum quantities are indispensable for entering international markets. The demand is increasing for an on-time supply. This includes the ability to be flexible when the demand changes suddenly, and also includes the demand for shorter delivery times because logistics improves. Those companies that want to stay in business have to react to these demands and put effort into increasing their supply-side as well as to stabilize it and obtain the required flexibility. A second realm of requirements refers to **quality specifications**. These specifications cover a wide range from hygiene to size and weight. They also encompass specifications for niche products, such as organic products, fair trade products, etc. In order to harmonize specifications for global trade and help smoothen trade relations and promote efficient markets, standards are being defined (see Box 1).

Box 1: The range of different standards

International Standards
International standard are set by three international organizations; the "International Office of Epizootics", the "International Plant Protection Convention" and the "Codex Alimentarius Commission" The use of these standards is regulated through WTO agreements, namely the SPS Agreement (sanitary and phytosanitary measures), the Technical Barriers to Trade (TBT) Agreement (technical barriers to trade) and the Trade-related aspects of Intellectual Property Rights (TRIPS) Agreement. These agreements are designed to avoid the use of quality standards as protectionist measures.

National Standards
Each state is allowed to establish its own national standards as long as these standards are in accordance with international agreements, such as WTO regulations. For instance, in the field of food security each EU member state can set national standards exceeding the benchmarks set by EU standards.

Private Standards
Private standards are set by private entities and are, therefore, not legally binding. Private standards exist because there is a market for them. This means consumers are willing to pay a higher price for products with better quality or that meet special ethical standards that are all not covered by legal regulations. An example for this is the market for certified free-range eggs, which exists although laying batteries are not outlawed. Food scandals, like the BSE crisis and the introduction of genetically modified food have increased the significance of private standards. Therefore, many retailers and food processing companies view private standards as important.

These standards clearly codify quality and process requirements for a product. This is increasingly regulating global markets externally, and finally these standards are continuously demanded by international buyers. Suppliers of agricultural goods in producing countries, such as Sri Lanka, have to comply with these standards in order to be able to enter the markets.

Foodstuff is the main part of agribusiness products, the trend to demand the fulfilment of norms and standards is especially strong. This is related to the fact that consumers are more and more aware of the risks of unsafe food production and handling. In the main markets, legal requirements with regard to maximum pesticide, antibiotic etc. residues are getting stricter. Brand and retail companies apply increasingly sophisticated laboratory testing, as a part of their risk management.

The risk that the products sourced globally may not comply with legal norms and consumer demand can be reduced by enforcing the fulfilment of basic *process standards* along the value chain, such as good agricultural and good manufacturing practices, International Organization for Standardization (ISO) 9000 quality management or HACCP Standards (*Hazard Analysis and Critical Control Points*). These standards are increasingly applied. Some of them, such as HACCP, are a more and more ubiquitous requirement in international foodstuff trade, even if they are not legally binding. The International Food Standard as well as the Euro-Retailer Produce Working Group – Good Agricultural Practices (EurepGAP), developed by large European food retail companies, are initiatives that try to unify the most important aspects in one globally applicable standard (see Box 2).

Even if these standards are developed and introduced in the markets of industrialized countries, there are clear signs that they are also being adopted by economic agents in non-OECD countries. For instance, India is quickly taking up standards such as HACCP and ISO in an effort to position itself as an important location in the international agribusiness. In the case of Sri Lanka this means that even if part of its exports to non-OECD countries might for some time be seen as a "soft option" with low entry barriers for quality requirements. But in the long run, local exporters will face increasingly demanding buyers, even from its neighbouring country. Stakeholder in Sri Lanka should, therefore, take advantage of the "windows of opportunity" that India, the Middle East, and others are opening, to develop its supply-

base and invest the resources into the gradual upgrading of export facilities and supportive institutions, with the objective to prepare the country for an increasingly stiff competition in international markets.

Box 2: EurepGAP: A global standard for Good Agricultural Practice

EurepGAP started in 1997 as an initiative of retailers belonging to the Euro-Retailer Produce Working Group (EUREP). It has subsequently evolved into a partnership of agricultural producers and their retail customers. The mission of EurepGAP is to develop widely accepted standards and procedures for the global certification of Good Agricultural Practices (GAP). EurepGAP members include retailers, producers/farmers and associate members from the input and service side of agriculture.

EurepGAP as a standard is a set of normative documents developed by representatives from around the globe and all stages of the food chain. In addition, the views from stakeholders outside the Industry including consumer and environmental organisations and governments were taken into consideration.

EurepGAP was driven by the objective to reassure consumers and can be seen as a response to food safety scares, such as BSE (mad cow disease), pesticide concerns and the rapid introduction of GM foods throughout the world. Many EurepGAP members are global players in the retail industry and obtain food products from around the world. For these reasons a need has arisen for a commonly recognised and applied reference standard of Good Agricultural Practice, which has at its center a consumer focus.

Following the philosophy of "the triple bottom line – people, planet and profit" EurepGAP is concerned with issues of food safety, the environment, workers welfare and the welfare of animals. Good Agricultural Practices is defined in this broad manner.

4.2 Importance of the agribusiness sector for Sri Lanka

The agricultural sector is of utmost importance for Sri Lanka's economy and contains large development potentials. This holds true, even though this sector's contribution to the GDP decreased to slightly less than 20 percent in 2002 from figures around 23 to 25 percent in the mid-1990s.[51] Around 75 percent of Sri Lanka's population still lives in rural areas. Most of these people depend either directly or indirectly on agriculture. More-

51 Cf. Central Bank of Sri Lanka (2003).

over, the incidence of poverty is much larger in Sri Lanka's rural areas, as opposed to the urban areas. In 2002, around 25 percent of the rural population was living below the national poverty line, compared to only 8 percent of people living in urban areas.[52] Hence, a combined strategy targeting agricultural productivity and rural development will be a key element on the way towards reducing poverty.

Due to large scale nationalizations of former British plantations after independence and land redistribution thereafter, a smallholder structure prevails in Sri Lanka's agribusiness. Hence, smallholders and small-scale farmers are the predominant agents in Sri Lanka's agribusiness. As agents achieve better integration into global value chains and assure higher income for themselves, this will result in faster development and higher incomes in general, and especially in rural areas. The specific avenues to achieve socially inclusive growth in Sri Lanka's agribusiness will be the key element of analysis in Chapter 6.

In addition, development of the agribusiness sector and the rural areas is of special interest for Sri Lanka, since it is one important way to ease the ethnic tensions throughout the country. The widely known ethnic conflict between the Singhalese and Tamil peoples is concentrated in the northern and eastern regions of Sri Lanka, both almost entirely rural areas with the majority of people employed in agriculture. Also, frequently you can find conflicts in some parts of the South between different groups of the population and the state authorities. Some of these tensions arise because of inequality and uneven income distributions. Developing rural areas through boosting the agricultural sector could raise incomes in rural – and conflict areas – and, thus may help to ease tensions.

4.3 Sri Lanka as an exporter of agribusiness products

Sri Lanka has been integrated in the World Market since colonial times, mainly with plantation crops such as tea, rubber and coconuts. Due to the characteristics of their production, market trends and the prevailing business structures, this kind of integration has not always been favorable

52 World Bank (2005, 4)

regarding terms-of-trade, value addition and learning processes. Striking in this regard is the fact that workers in the large estates are until today the most impoverished strata of Sri Lanka´ s population.

In comparison to many other developing countries, Sri Lanka has embarked early (1979) on a strategy of outward-oriented development. Since then, the degree of market openness has gradually increased. Today it reaches around 30 percent on the export side (proportion of exports to GDP) and 37.5 percent on the import side. These percentages are considerably higher than the comparative data for India (9.1 and 10.7), but still much lower than the data for Thailand with 56 and 48.9 percent.

During the last decade, imports of goods have nearly doubled, from 3,503 Mio. US $ in 1992 to 6,103 Mio. in 2002.[53] The same holds true for exports of goods, increasing from 2,397,500 Mio. US $ in 1992 to 4,772 Mio. US $ in 2002. A disaggregation of these figures shows very dissimilar trends for different products and product groups. We will limit our analysis on the outbound trade:

— Since the beginning of the 1990s, exports of textiles and garment have constantly and rapidly increased, reaching a volume of 2.420 Mio. US $ in 2002, representing 67 percent of industrial exports and more than half (51.6 percent) of total exports for this year. This trend is basically related to large investments into the labor-intensive and export-oriented apparel industry. This industry is characterized by an extremely backward integration into the country. There is no significant fabric production in Sri Lanka.

— The contribution of agribusiness to Sri Lanka's exports is rather limited in quantitative terms. Within this group of goods, the so-called plantation crops, first of all tea, stand for the biggest share. The value of tea exports grew steadily from a low level of 339.8 Mio. US $ in 1992, peaking in 1997 (882.1 Mio. US $), before decreasing, mainly because world market prices fell. In 2002, tea corresponded to 14.1 percent of all exports. The two minor plantation crops, rubber and coconut based products, stand for a small share of these values, total exports accounted for 27.0 Mio. US $ for rubber and 41.0 Mio. US $

53 Data taken from: Central Bank of Sri Lanka (2003). All numbers and shares are 2002 values taken from Central Bank of Sri Lanka (2003).

for coconut respectively in 2002. Coconut based products and rubber derivatives have both declined during the last years. While rubber exports contributed a peak of three percent to total export earnings in 1995, its share in 2002 was merely around 0.6 percent.

There is an especially worrying tendency that some of the value added agro-based products have strongly lost ground during the last years, e.g. exports of desiccated coconuts declined from 72 Mio. US $ in 1999 to 34 Mio. US $ in 2003. Exports of coconut oil decreased from an already low level of 3.5 Mio. US $ to only 2.4 Mio. US $ in the same period.

Exports of all other agro-based exports (except plantation crops) amounted to only 168 Mio. US $ of value in 2002. While their contribution to total exports is thus limited, Sri Lanka plays an important role in some specific global markets, basically in the area of spices, first of all cinnamon. Sri Lanka is the world's largest exporter of "true cinnamon", *cinammonum verum*, catering around 80 percent to the world market. However, on global markets, this type of cinnamon is still categorized together as one spice with the predominant *cinammonum cassia*, which is of much lower quality.[54] Cinnamon makes up for around one percent of Sri Lanka's total export earnings. Other spices have been gaining more importance in recent years. The global demand for spices is generally increasing. Sri Lanka mainly exports nutmeg, mace, pepper, cardamom, and cloves.

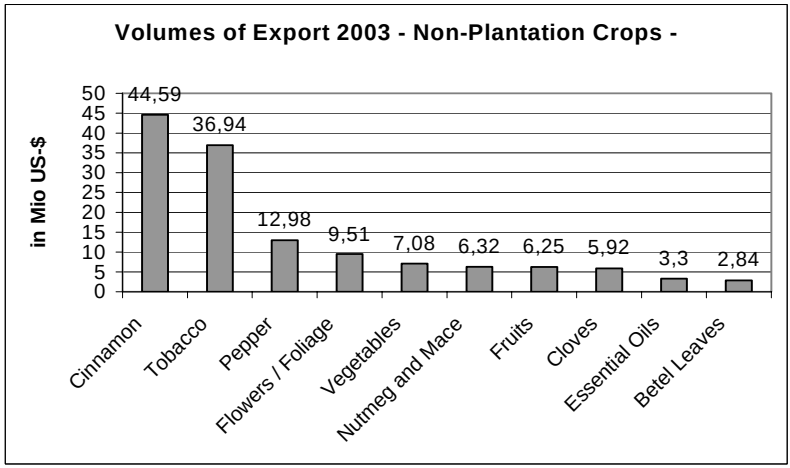
The following figure gives an overview over the total volumes of exports for non-plantation crops for the year 2003. It covers all crops with at least 1 Mio. US $ of export value.

At the beginning of the new Millennium the **markets** in the USA are by far the most important destination for Sri Lankan exports of goods, accounting for 36 percent of all exports in 2003, followed by the United Kingdom (13 percent), India (5 percent) and Germany (4.6 percent).[55] However, the importance of the US-market is highly influenced by the strong linkages between Sri Lanka and North America in the apparel sector. In 2003 gar-

54 *Cinnamonum verum* is of higher quality than the substitute *cinnamonum cassia*, which is mainly produced in China, Indonesia and Honduras; and, meanwhile, has a much larger share in the world market.

55 SLEDB (2004).

Figure 5: Volumes of export 2003 – Non-Plantation crops

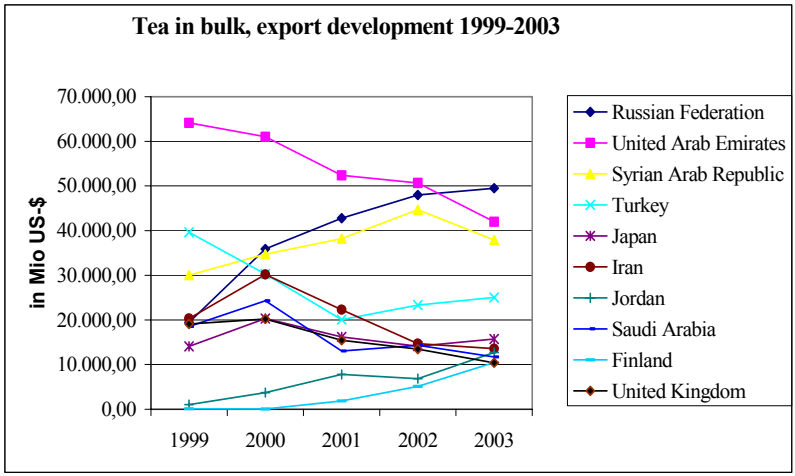


Source: CBSL 2004.

ment accounted for 84 percent of all exports to the USA, leaving only a value of 291 Mio. US $ to all other goods. A similar observation can be made with regard to the United Kingdom. 77 percent of exports to this country correspond to garment, leaving only 144 Mio. US $ for all other categories.

When examining agro-based value chains it seems that the most important export markets of Sri Lanka are non-OECD countries. Figure 6 shows the trends in bulk tea exports from 1999 to 2003. You can observe that the first most important export destination of Sri Lankan tea exports is and remains the Middle East, slightly losing ground to the Russian Federation that increased its share in overall bulk tea exports from 5.7 in 1999 to 15.5 percent in 2003. The situation is similar with regard to packed tea, but somehow different with regard to the next step of value-addition, namely tea bags. Russia received around 11 percent of all tea bags exported from Sri Lanka in 2003 (up from 8 percent in 1999), followed by Australia with

Figure 6: Tea exports (bulk), 1999–2003

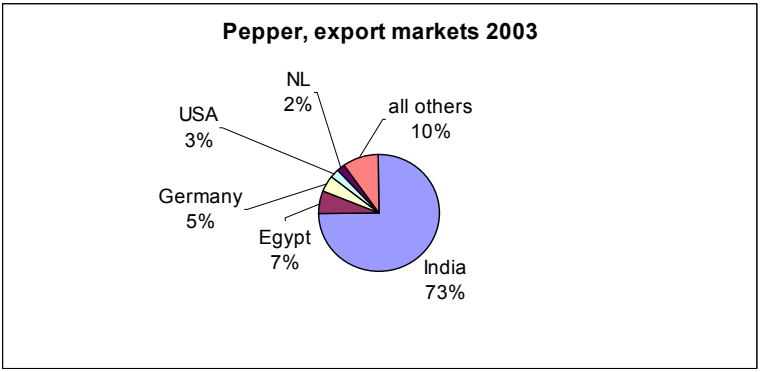


Source: CBSL 2004.

6.5 percent. The single most important market for coconut and derived products is Pakistan. It exports nearly 99 percent of all copra (dried coconut albumen) from Sri Lanka and an important part of coconut fresh fruits. The main part of desiccated coconut goes to the Middle East; however, in all countries in that region, the export values have decreased. Within the product group spices, India is the most important market (arecanut, cloves, and nutmeg, also see Figure 7: pepper), with the exception of cinnamon (mostly Latin America, see Figure 8) or cardamom which goes mainly to Italy.

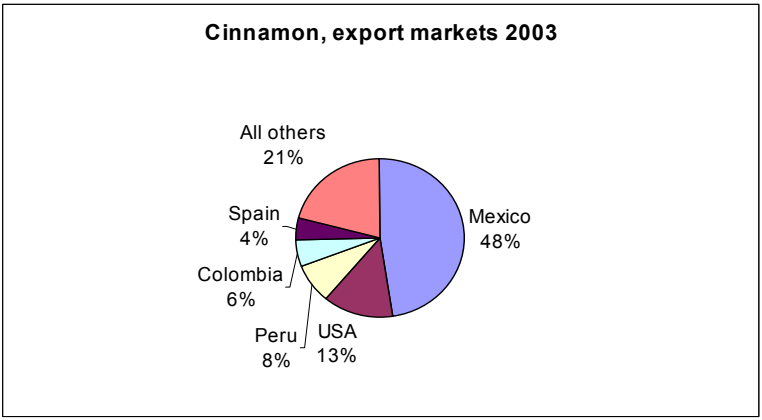
We have seen that the main export destinations for many important and promising value chains are outside of the OECD countries. There are exceptions to this rule. Thus, for instance, more than two thirds of all essential oils are sold to only three major industrialized countries (United Kingdom, USA, and France).

Figure 7: Pepper exports, 2003



Source: CBSL 2004.

Figure 8: Cinnamon exports, 2003



Source: CBSL 2004.

4.4 Sri Lanka's export dynamics: overall assessment and prospects for the future

During the last years, Sri Lanka was able to increase exports. However, the dynamics is insufficient to meet the country's development challenges and remains heavily vulnerable to external shocks because of low level of export diversification. The consequences of the remaining dependency on few export activities could be felt, during the past years, as world tea prices decreased, ; thus, further deteriorating the already delicate economic position of the main part of the tea plantation sector. The lack of diversification in the export sector may have a much stronger impact on Sri Lanka's economy and society in the near future, The phasing out of the textile quota agreement within the WTO (ex-Multi Fibre Agreement) at the beginning of 2005 casts severe doubts on the future competitiveness of much of the manufacturing potential in Sri Lanka, and may lead to a rapid increase in unemployment.

The export values related to many product groups (fruits, essential oils, some spices) seem to be very much below their potential, considering the early shift to an outward-oriented development and comparing the basic figures with the achievements of countries, such as Chile or Costa Rica, which followed a clear-cut strategy of export promotion and diversification.[56] The previous figures show a decrease of the share of value-added products in some sectors. Tea, for example, seems rather slow in the transition from bulk exports to value-added products. Highly complex processing of food (such as ready-to-eat meals or other convenience products) is a completely incipient phenomenon in Sri Lanka.

When looking at the markets, we see a rather low penetration of the demanding OECD markets. And they are confined to limited quantities of bulk and few value-added products. An exception can be seen in the case of essential oils and – as the interviews have shown – in organic agro-based products. In these cases, Sri Lankan exporters achieved significant market access in a series of OECD countries.

56 For the case of Costa Rica, see Stamm (1996).

The mere analysis of the macro data does not reveal the reasons behind the limited access of Sri Lanka's exporters to OECD markets. Some of the given market relations have historic roots and are eased by ethical links. This refers mostly to the trading of tea and some other products, such as desiccated coconut, to the Middle East, which is often carried out by traders belonging to the Muslim community. For a long time Russia has already been an important market for tea. What calls for a more complex explanation is the important and growing flow of spices from Sri Lanka to India, considering that India itself is one of the world's major spice producers. The data is combined with the outcome of the interviews conducted with private companies and experts within the spice sector, and it indicates that there are at least three basic explanations behind this phenomenon:

— The significant spice production in India is being matched by an equally important domestic consumption. In the last years, the Indian economy grew at a very fast pace. Combined with a still high population growth rate, this propelled local demand and consumption.

— Many spices are mainly processed to extract essential oils (e.g. pepper oil). The economies-of-scale needed to work economically calls for high quantities of raw material to extract capital-intensive oils. This is the case in India. Spices imported from Sri Lanka to India complement the locally produced raw materials and are demanded because of their special characteristics. These spices produce especially high content of essential oils.

— The Indo-Lankan Free Trade Agreement (ILFTA) was signed in 1998 and is gradually being implemented. Goods are being removed from the list of sensitive products that are exempted from the agreement. The ILFTA gave Sri Lanka's spice exporters an important tariff advantage over competing suppliers.

The analysis of Sri Lanka's export structure implies that the sector embarks in large parts on a strategy of expanded exports of low value-added products to traditional, geographically close and/or fast growing markets. In the short-run, the pressures to change this scheme may be limited, while no major changes of trends in these markets occur. In the case of India, the continued implementation of the ILFTA and the good economic performance of the neighboring country may indeed open further opportunities for increased export volumes. This may be further complemented by the establishment of the South Asia Free Trade Association (SAFTA), foreseen

for 2006, which could increase trade within the region and possibly open new market opportunities for Sri Lanka.

However, in the near future or in the long run, the setting may change drastically. Important competitors are continuously penetrating the international markets (Vietnam, Indonesia) with bulk exports of spices, coconut, and even tea. Many of them have considerably lower production costs than Sri Lanka. Sri Lanka will feel this type of competition from the markets in India, once global trade agreements will have led to the erosion of the special advantages of the ILFTA and/or the SAFTA. In the meantime, there are indications that the demand patterns will change in all three non-OCED markets (the Middle East, India, and Russia) mentioned above. Growing income levels shift the demand to higher qualities and towards value added products. Increasingly globalized business structures lead to a gradual incorporation of the norms and standards that are present in the most sophisticated OECD markets toady.

4.5 Sri Lanka's preparedness for the global challenges in agribusiness

A systemic approach is used to assess Sri Lanka's preparedness for global challenges in agribusiness. First, we review Sri Lanka's competitiveness and conditions for investment. After this, we assess the competitiveness of the agribusiness sector by detecting weaknesses, constraints, and opportunities for further development. In the last step, we present the institutional setting of the meso-level and features of the micro-level.

The Growth Competitiveness Index (GCI) and the Business Competitive Index (BCI) utilized in the Global Competitiveness Report of the World Economic Forum[57] permit a first useful approach to assess the overall competitiveness of Sri Lanka; the **GCI's** main goal is to analyze the potential for the world's economies to attain sustained economic growth over the medium to long-term. The GCI is based on three important broad categories: the **macroeconomic environment**, the **quality of public institutions**, and **technology**. Sri Lanka is ranked 68th among the 102 countries

57 Cf. www.weforum.org.

classified according to the GCI. It ranks below other developing and competing Asian countries like Vietnam, India, China, and Thailand, but above Indonesia and Bangladesh. A broader analysis of the sub-indices of the GCI shows that Sri Lanka performs especially poor in the public institutions index, only getting the 72nd position.

The **BCI** has two main pillars: the first measures **companies' development strategies** by looking at aspects like production and process innovation, the nature of competitive advantages, capacity for innovation, value-chain presence, the extent of branding, marketing and training, and company spending on research and development. The second component of the BCI, the **business environment**, consists of four pillars: the quality of factor (input) conditions, the context for firm strategies and rivalry, the quality of local demand conditions, and the presence of related and supporting industries.

The BCI analysis shows that Sri Lanka is on a relatively promising path as far as company operations and their strategies are concerned, although the quality of the business environment is rather poor. The BCI results show that Sri Lanka ranks 56th of 80 countries. Comparing this ranking with other countries internationally reveals similar results as the GCI analysis. Again, Sri Lanka is worse than Vietnam, Thailand, China, and India, but better than Indonesia and Bangladesh.

Private investments are becoming more and more important for international competitiveness and can, therefore, be an important vehicle for economic development. Private and foreign direct investment (FDI) can only be attracted if investors have confidence in their safety, and if there is a perspective for profit gains in the near future. In this context, Sri Lanka missed many opportunities in the last decades. The long-lasting civil war that ended in 2002 transformed the country into a situation of latent conflict that impeded a stronger involvement of foreign investors in the country. In the 1990s, Sri Lanka could attract a series of FDIs through its privatization progress. The 20 biggest foreign investors all arrived in the 1990s. Nevertheless, Sri Lanka is still far behind all other South Asian countries concerning the attraction of FDI and GDP growth. Despite the strong pick-up in FDI in the 1990s, Sri Lanka was greatly outperformed in per capita

FDI attraction by Malaysia, Thailand, and Vietnam. Malaysia. These countries all have a similar sized population, but attracted more than 20 times more FDI than Sri Lanka.[58] However, recent developments are promising. Conditions for foreign investment in Sri Lanka have improved substantially in the last years. There are almost no restrictions on FDIs and for foreign investors. Latter ones are usually tax-exempted for five years.

Regarding the **competitiveness of the agricultural sector**, it has to be stated that investments in the agricultural sector are at a very low level. Thus, only 2.7 percent of the FDI went to the agricultural sector in 2000.[59] According to an interview conducted with the Sri Lankan Board of Investment (BOI), the major hurdles for FDI attraction and development in the agribusiness sector are the North Eastern conflict and a deficient infrastructure. The Central Bank of Sri Lanka argues that the most important reason for Sri Lanka's lack of competitiveness with regard to FDI are technology gaps, low investment, inadequate availability of quality inputs, inadequate funding, transportation problems, marketing problems, and the lack of a consistent set of trade and tariff policies.[60]

An interview with the formerly USAID funded 'Spice Cluster Initiative' revealed that productivity in the agribusiness sector is quite low compared to other Asian countries like India, Vietnam, or China. This low productivity and the predominant smallholder structure, makes sourcing of significant quantities a major challenge. Quality aspects are not clear-cut. As mentioned above, the natural conditions in Sri Lanka are convenient for the production of high-quality goods. However, due to the lack of technology, trained personnel, poor logistics, and other factors, the quality of products deteriorates significantly before arriving at the processor or the exporter. Furthermore, it has to be stated that the framework conditions for Sri Lanka's agribusiness are not conducive for growth and productivity gains. Tackling problems like labor and land policies is a very sensitive issue. Nevertheless, improving productivity requires structural changes to occur in the near future.

58 UNCTAD, Investment Policy Review Sri Lanka, November 2003, 7.

59 UNCTAD, Investment Policy Review Sri Lanka, November 2003, 12.

60 Cf. Central Bank of Sri Lanka (2003, 85).

A closer look at the **institutional setting on the meso-level** points out where to find specific problems that are undermining Sri Lanka's competitiveness. Growth of linkages and buyer-supplier relationships in agribusiness are developing very slowly. In many cases, producing companies do not find adequate business partners. They may be suppliers of goods or private and public providers of services. Sri Lanka's competitiveness is undermined by packaging material often imported, deteriorating logistics, efficiency, and timeliness of production. Testing and certification facilities exist but are expensive. This raises costs for exporters, especially for those who handle small volumes and export to demanding markets.

R&D constitutes a major gap in the institutional setting of Sri Lanka. R&D is done at some universities and research institutes, such as the Tea Research Institute or the Coconut Research Institute. However, most observers assess their performance as insufficient. One basic complaint received by the interviewed from private companies is that the research focuses too little on the interests and problems of the private sector and it is too academic. Joint R&D between private and public entities is extremely scarce.

Marketing and market intelligence are crucial issues. Since 1979 the Export Development Board (EDB) has been in charge of the promoting Sri Lanka's products internationally. The performance of the EDB was assessed quite differently by the interviewed experts and companies. Some instruments, such as the co-financing of visits to trade fairs, were considered helpful by those companies that had benefited from the funding. Some interviewed criticized the lack of additional promotion tools, such as permanent EDB officials responsible for promoting access to large markets.

The deficiencies in the public institutional setting assign a special role to the organized private sector. The Ceylon Chamber of Commerce (CCC) clearly plays the dominant role among various chambers on the national and regional level. Founded as early as 1839, it is the oldest chamber of Sri Lanka and even one of the oldest in the world. With 500 companies as members it generates approximately 30 to 40 percent of Sri Lanka's GDP. Very important services are provided by the chamber to its members. Two of them are the Economic Intelligence Unit and Business Information Project. The first service realizes applied research on a range of economic issues. The second service was jointly developed with the GTZ. It provides ICT-based services, such as providing general market information or

finding international business contacts for the private sector, including members and non-members of the chamber.[61]

Analyzing the **micro-level of agribusiness** and making general assessments is not easy at all. For an outward-oriented development path, the long tradition of being an important source of goods, which is demanded by international markets, can be seen as an advantage. Among the interviewed companies, many have roots dating back decades and a long history of trading with partners from the Middle East or Great Britain. This strong international linkage has one disadvantage, which is still prevailing today to a large part in the export sector, as described by the interviewed experts. It is the historical "trading mentality". These companies search for relatively short-term financial achievements; and, thus, continue a development path that hinders long-term investments, e.g. in establishing closer linked value chains. In addition, the long political unrest and instability of Sri Lanka has also been a disincentive for long-term investment.

However, some of the interviewed companies show a completely distinct profile and attitude.[62] They are usually much younger, tend to be involved in one or several processing steps, and cater higher value-added products to demanding markets. This correlates with a clear orientation towards an organized sourcing structure; therefore, establishing closely linked value chains.

As a preliminary **conclusion** we can state that Sri Lanka has important assets, which may enable the country to face the challenges that arise from the trends in global markets, as previously described. Important assets are, for instance, natural advantages for the production of high quality agrarian products and a long tradition of openness towards world markets. However, there are also important deficiencies in the "systemic competitiveness" of the country. Especially significant gaps have been detected in the institutional environment of the companies.

Whether these bottlenecks can be removed or not depends to a great extent whether the transformation towards a stable and peaceful society can be

61 Cf. www.bip.lk, www.chamber.lk.

62 A good example for a success story is the company 'Lanka Organics'. See the related box 3 for more details.

achieved, and whether politics will be oriented towards a gradual increase of competitiveness. Even if the political orientation tends to fluctuate, there seems to be an overall consensus about the need of a strong export sector with links to rural areas. This could be the basis for an overall increase in the competitiveness of Sri Lanka's agribusiness, if collectively linked to Public Private Partnerships that establish sector policies and with considerable donor resources that might be allocated in the coming years.

5 The competitiveness of Sri Lankan value chains

The VCA proved to be a useful tool to analyze the important linkages between agents. It also maps and assesses the knowledge flow within the chains, which is one important aspect of competitiveness. The value chains cover all agents from farmers to collectors or middlemen to processors and exporters, or the foreign buyers, and finally, to end-consumers in international markets. The end-consumers and foreign buyers, i. e. agents *outside* of Sri Lanka, mainly set the trends for competition and challenges in the high-end markets, while external agents in bulk exporting countries, such as Indonesia or Vietnam, set the trends for price-competition in this market. In order to be able to upgrade and cater to the more profitable and growth-promising high-end market, relevant and adequate information has to be gathered either from the foreign buyers or on behalf of Sri Lankan companies through market research.

In the first part of the following chapter, we elaborate on the structure of Sri Lankan value chains with regard to the key players and the institutional setting which leads to a specific structure. We focus specially on the role of the different agents have in relation to knowledge transfer within the chain. The second part of the chapter gives an overview of the different value chains which can be found in Sri Lanka's agribusiness, analyzing their advantages and shortcomings with regard to the challenges elaborated in Chapter 4.

5.1 Determinants and elements of value chains in Sri Lanka's agribusiness

The conceptual approach outlined in Chapter 3 assumes that value chains are formed in a special manner, as a response to requirements and trends in

international markets, and related to special sectors. However, it is evident that value chains are aggregates of agents on the different levels and, thus, the local structures involving farmers, industry, and exporters are highly relevant when building a specific value chain in different countries. The following pages present the available information about these "elements" of value chains, starting from agriculture to processing and finally exporting of agro-based products. Due to a notorious lack of reliable data, a series of different sources had to be used, such as scientific literature, unpublished documents, and internet sources, combined with outcomes from the interviews conducted with experts and company representatives.

5.1.1 Land tenure structure, land policy, and the role of farmers' organization

Sri Lanka is a rather small but highly populated country. A large proportion of its inhabitants still lives in rural areas. This correlates to a land tenure structure clearly dominated by small and very small units. Data from the Sri Lanka Institute of Statistics (SLIS) show that the average size of land owned is 0.6 ha; about 71 percent of agricultural households cultivate less than 1 ha of land, 90 percent less than 2 ha.[63] Due to the very small land-holdings and the concentration on low-value production, many households depend on non-farm activities to satisfy their basic consumption needs. Currently, the land policy in Sri Lanka is rather restrictive. About 86 percent of the land is state-owned, and there is a ceiling of 50 acres (20.2 ha) for private land ownership. Private land that was transferred to farmers through a series of land settlement programs beginning in the 1930s is subject to a series of restrictions regarding leasing, sale, mortgage, and inheritance.

Although this land policy led to a high level of equity in land ownership, it can be a severe obstacle for competitiveness, as the opportunities to realize economies of scale, and incentives for investment in land are limited. Additionally, it impedes the optimal use of land, complicates farmers' access to credit, and limits land transactions. As we will see below, it also

63 Cf. The World Bank (2003): *Promoting Agricultural and Rural Non-Farm Sector Growth*, Annex A, 26.

affects the knowledge transfer down the value chain negatively. The Land Reform Act (1981) allowed the private sector at least to *lease* land above the maximum of 50 acres established for land property. In some way this act encouraged the return of foreign and domestic companies to agriculture, after the expropriations in the 1970s. But today transaction costs for land leasing remain high because of the large paperwork involved.

Up to now restrictive land policy even affects the choice of what to cultivate on privately owned land. The Agrarian Services Development Act (2000) states that farmers need to obtain a special permission from the land commissioner if they want to plant other crops than paddy on paddy land. This increases the transaction costs and reduces flexibility to turn to higher-value crops like fruits.

Private companies use outgrower schemes as a rather common way of sourcing agricultural produce for processing and exporting. In some way, they are the "natural answer" to the smallholder structure and the rigid land policy of Sri Lanka. However, this form of organized sourcing is confined to a special shaping of value chains, outlined in more details, in Section 5.2.3. Our research implies that outgrower schemes organized and monitored by successful companies, are more likely to succeed than publicly induced projects of farmers' organizations. This can be seen as a direct consequence of the merging together of two very obvious and strong economic interests (the contractors and the smallholders). However, in some cases a trade off might be seen between economic success and empowerment of farmers, as outgrower schemes tend to be rather paternalistic since they are clearly dominated by the contracting company.

5.1.2 Collectors and middlemen

Collectors and middlemen are the link between agriculture on the one hand and processors or exporters on the other hand. Middlemen may be farmers themselves or independent agents, who receive all their income from collecting and trading goods. The traditional perception of the role of middlemen is negative; they are seen as unnecessary agents in the value chain, increasing supply costs and/or capturing part of the rents accruing to farmers. However, we need to point out that they fulfill indispensable tasks of transporting and bundling agrarian produce. These tasks are necessary due to the atomized structure of agrarian production.

The traditional role of middlemen is mainly matching demand and supply of quantities. They often also fulfill a more comprehensive role for farmers, e.g. providing short term credits. While this may lead to a difficult situation of indebtedness and dependency, in many cases, middlemen are highly trusted by farmers.

However, what remains clear is that middlemen constitute a gap in the value chains with regard to upstream and downstream knowledge transfer. This is a difficult issue, because of increasing knowledge intensity of value chains. This is taken up again in Section 5.2.

5.1.3 Processors and exporters

The sophistication and size of the industrial base of Sri Lanka is rather low and small. This refers to nearly all sectors, except for the apparel industry and to some extent the tea factories. A rather new trend in agribusiness is the production and export of processed agricultural produce. There is no important FDI in agribusiness beyond the tea sector, because of the unfavorable supply-side. In agribusiness we find processing plants that are mostly an integral part of exporting companies or have been founded in the context of village or area development schemes (see above). These can be factories processing fruits or spices.

The export sector is much broader. A database provided by the EDB lists about 300 exporting companies related to agribusiness. The same database and the interviews conducted show that many export companies are not specialized on one or a few goods. Many of the companies offer a wide range of agro-based products; some are involved in imports (e.g. equipment or consumer goods) and exports. A few companies are also active in completely different areas, such as tourism. Yet, other export companies have a different profile; they are younger and concentrate on value-added products as well as special markets.

5.2 Types of value chains in Sri Lanka's agribusiness

Following the conceptual approach of Chapter 3, where different forms of value chains have been portrayed, this section discusses the prevailing value chains we found in Sri Lanka’s agribusiness. The previous section

already hinted at some of the specific problems by laying out the general platform. In this section we continue one step further and analyze the chains in detail: outlining to what extent they can contribute to a competitive export-oriented agribusiness sector, how they hinder competitiveness, and what pre-conditions need to prevail for such chains to exist. In addition, we identify the main markets exporters of the value chains cater to.

When analyzing the different chains, it is important to keep in mind the challenges Sri Lanka faces on global markets. In sum, the factors that affect the competitiveness of Sri Lankan companies boil down to meeting product quality standards, quantities required by international buyers, and supplying right-on-time, highlighting the importance of adequate logistics and chain management.

Basically, we perceive four main categories of value chains that exist as already briefly hinted at in the introduction. These are listed in ascending order in terms of agent integration, the disintegrated / market-based, the weakly-linked, the strongly-linked / relational, and the vertically-integrated value chains. The following paragraphs analyze each of these chains individually and describe them according to the different criteria mentioned above.

5.2.1 Disintegrated / market-based value chains

As mentioned in Section 5.1, most value chains in Sri Lanka are characterized by a highly fragmented form with little integration of agents. The majority of Sri Lankan exporters or processors have very little direct contact with international buyers: Nevertheless, some of the companies we interviewed had established a strong co-operation with international supermarkets and/or brand companies. Consequently, most of Sri Lanka's exporters and processors cater to international markets. They use importers outside of Sri Lanka, which establishes a gap in the information flows between Sri Lankan agents and the target market.

This prevailing situation allows for Sri Lankan exporters and processors to be flexible in terms of quantity and product range, as they are able to switch suppliers according to their demands and needs without being bound to any other agents in the chain. This could potentially be an impor-

tant advantage, as companies need to display a high degree of flexibility to be able to react to market demand changes, as lined out in Chapter 4.

Moreover, most companies are not in direct contact with suppliers. This relieves them from paying the administrative costs that would occur when managing own plantations, or outgrower schemes, for instance, as discussed later on. At the same time, the companies do not have to sacrifice sinking costs in setting up fixed supply systems with specific agents. These factors tend to create incentives for Sri Lankan companies to remain in disintegrated value chains.

Despite some of these positive aspects, there are numerous disadvantages that prevail in such a fragmented system, which hamper a competitive development of the sector:

— First, there is no guarantee for the quality of the produce supplied, because there is very little feedback from the exporters or processors to their suppliers, and no contracts exist to enforce certain quality standards.

— Second, this is also linked to the above argument that it is impossible to trace the supplied produce. In the light of increasing quality competition and standards in international markets, especially when catering to OECD markets, this situation is a big drawback for Sri Lanka.

— Third, a weak value chain interaction means a serious deficit in supply coordination. This hampers meeting the requirements of powerful global buyers, which list right-on-time delivery, constant quantity, and good quality among their priorities. Not being able to coordinate the supply-base leaves many Sri Lankan companies in a very difficult position in competing internationally.

— Fourth, this lack of coordination results, among others, in high post-harvest losses. In Sri Lanka, these are estimated to reach about 40 percent whereas 20 percent tend to be acceptable.[64] The following are all consequences of bad or no supply coordination and result in high figures for post-harvest losses: mishandling of produce by collectors once it leaves the farm gate, bad storage facilities, and the unreliable collecting sequence.

64 Interview with J. Varley, TCI-USAID, Colombo.

— Furthermore, disintegrated value chains are accompanied by high search costs, since most of the agents are not embedded into the chains. In other words, since exporters or processors do not have strong relationships with their suppliers and purchasers, they have to look for the collectors being able to deliver the right quality and quantity at the one end of the chain, and find purchasers on global markets at the other ends. The resulting transaction costs absorb important resources that could be allocated more efficiently.

— Finally, knowledge transfer is being reduced because chain-specific channels are missing. This shortcoming is probably the most important of the disadvantages of fragmented value chains. Knowledge about quality standards, prices, and market trends cannot reach the upper ends of these chains, or farmers to be more specific.

The prevailing situation in Sri Lanka where numerous independent and disintegrated agents make up large parts of the agribusiness sectors is reflected in the fact that the local companies mostly export bulk products to non-OECD markets.

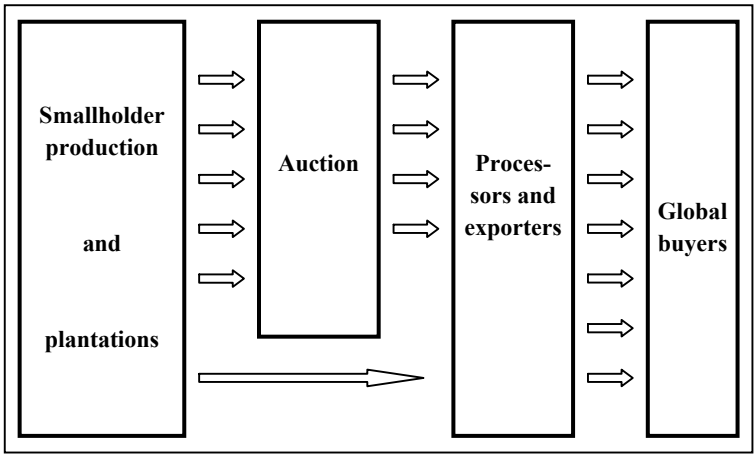
5.2.2 Weakly-linked value chains

A special form of value chains we observed in Sri Lanka are what we refer to as "weakly-linked value chains". These include *auctions* as an integral part of the chains. Such chains are heavily dominant in the tea sector, where approximately 95 percent of Sri Lanka's tea is sold at weekly auctions, and to some extent in the spice sector. Figure 9 is a graphic illustration of the tea supply chain. Although most of the companies we interviewed perceive the auction system as overwhelmingly positive and convenient, we have been able to depict some disadvantages of such a system.

Probably the most important **advantage** of auctions is that products are bid for, which allows for fair and transparent pricing. Every buyer at the auction has the opportunity to bid for a product, and it is an open interaction that results in a final sale decision.

A second advantage of an auction is that the quality of the produce is relatively reliable. This is the result of an open and rather effective reputation mechanism. Tea trading companies have to send in tea samples to be auctioned. If the sample and delivered product do not coincide, their chances

Figure 9: Sri Lanka's Tea Supply Chain



of being able to find buyers at the next auction are reduced; especially, if a tea broker supplies a lower than expected quality of tea at the auction.

A second advantage of an auction is that the quality of the produce is relatively reliable. This is the result of an open and rather effective reputation mechanism. Tea trading companies have to send in tea samples to be auctioned. If the sample and delivered product do not coincide, their chances of being able to find buyers at the next auction are reduced; especially, if a tea broker supplies a lower than expected quality of tea at the auction.

One can assume that *traceability* is low in auction products, since products from numerous origins are traded at one spot. Nevertheless, the origin of the produce is clearly labeled on each item or batch, so that it can always show the buyers (with the exception of fraud) where the goods come from, therefore, traceability is widely assured.

Auctions offer buyers the opportunity to purchase alternating quantities, according to their needs. In other words, since there is no direct link between the buyers and the suppliers, the former enjoy a high degree of procurement flexibility. The buyers do not have to purchase the produce from the farmers because of existing contract.

Despite the advantages listed above, auction based value chains have also clear disadvantages when catering to demanding markets. Auctions are generally characterized by little buyer-supplier contact, minimizing quality feedback and knowledge transfer among the agents. This is an especially significant drawback for any process of product upgrading and for pursuing a specialty-produce strategy. That is why specialty teas, such as organic tea, are *not* traded at to the list of auctioned goods. In fact, most of the auction-traded Sri Lankan products are exported to non-OECD markets. For example, a vast majority of bulk tea goes to the CIS and the Middle East (see Chapter 4.3).

5.2.3 Strongly-linked / relational chains

Although we have seen that the majority of the value chains in Sri Lanka are rather fragmented, there are some significant chains in which the agents are linked in a systematic way through longer-term commercial relations, intense interaction and mutual information and knowledge transfer up-stream as well as downstream the chain. Such *relational* chains, as they have been called in Chapter 3, are formed by coordinating efforts in the Fair Trade and organic sector. These are rather small, but growing segments of the international agribusiness. However, we also found other relational chains outside of these niches. This is the case when the business objective is to cater high-value products to challenging, mainly OECD-markets.

Outgrower schemes are by far the most important mechanism for Sri Lanka to coordinate relational chains with the advantages already mentioned. Outgrower schemes link small farm units to enterprises that provide production and marketing services to smallholders. Through outgrower schemes, smallholders receive from a contractor the goods and services they cannot obtain on their own, but that are needed for an efficient production. These usually include inputs like seeds, fertilizers, knowledge and technology. The smallholder is responsible for growing and sometimes for the first steps in processing, whilst the contractor does further processing, marketing, and manages the whole operation.

Chapter 6 discusses the prospects for social inclusiveness that outgrower schemes may provide. Here are just some of the advantages contracting company have:

— Outgrower schemes have the advantage of allowing thorough **supply-base management** and development. Filling the gap between the exporters/processors and the suppliers, allows for good supply coordination. This is evident in the former two types of chains. The high level of interaction can assure good and stable **quality** of produce, where the buyer is in close contact with the supplier, providing the latter one with inputs and training.

— In relational value chains the produce is easily **traceable** and this is closely linked to the quality aspect. The direct contact between exporters, their own collectors, and their suppliers render it easy to keep track of the origin of each produce. Especially in the organic sector it is extremely important that the exporting company need to be able to proof that the production processes match the requirements of the organic markets.

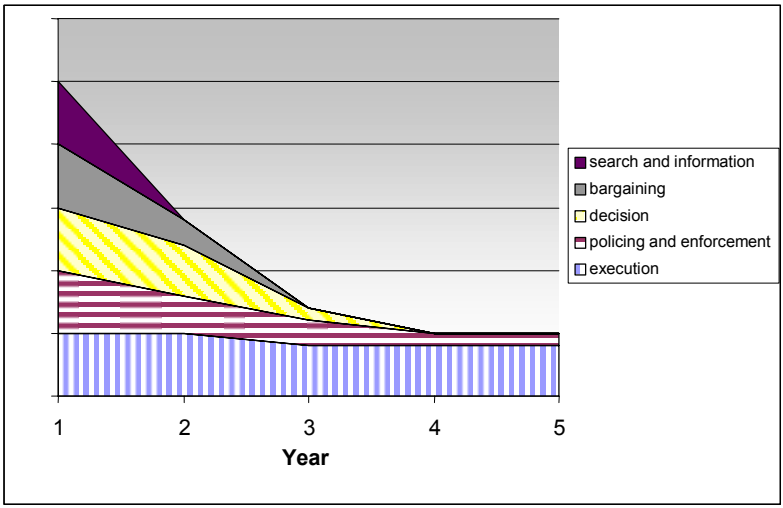
— In addition, working closely with farmers spread across different areas, who all have to some degree varying product portfolios, leads to **economies of scope** for the contractors. They can source different produce from different farmers. This argument holds especially in organic production, where farmers operate on a multi-cropping system, which automatically leads to various products being grown on the same plot. Being able to rely on a highly diversified product basket ensures flexibility in terms of reacting to changes in the market trends.

— One of the clearest results from the factors mentioned above is the **lower level of post-harvest losses** in chains characterized by outgrower schemes. For instance, Lanka Organics has been able to reduce an initial figure of 50 percent of post-harvest loss within its system, to 20 percent through measures such as improving storage facilities and techniques, and informing the suppliers on the importance of post-harvest handling (see Box 3).

However, relational chains characterized by outgrower schemes also carry some disadvantages and risks for the contracting company. Building up such interlinked chains involves a significant long-term investment for a contractor that will only pay-off after several years. The basic reasons for

this situation is that in the first years of operation of an outgrower scheme, transaction costs are very high (see Figure 10).

Figure 10: Transaction costs related to the implementation of outgrower schemes



Considering the scattered structure of land tenure and land use, the **search and information costs** are very high in the beginning. The contractor has to identify areas suitable for growing certain products, interested farmers and organizational structures that may form the nucleus of an outgrower scheme have to be identified etc. These costs can be lowered rather quickly, once a significant number of suitable farmers are identified and knowledge about the situation in the producing regions is increased.

Bargaining and deciding on the conditions of an outgrower scheme is a costly process. This is especially true in Sri Lanka where it is caused by atomized production structure. Furthermore, it is due to the fact that the level of mistrust is high especially among the rural population, divided into different ethnic groups and political groupings and grown in a highly conflictive environment. In addition much of this mistrust is also based on experience. In the past, numerous farmers agreed to enter into close rela-

tionships with buyers in Colombo, only to be left in the dark once demand for their product started fluctuating.

It is necessary to enforce conditions of the mutual relationships. **Policing and enforcement** costs are also high in the beginning, e.g. farmers in spite of being formally bound to deliver to the contractor tend to sell their produce to middlemen, if they offer a slightly better price. Enforcement costs can be lowered, once a certain level of trust between outgrower and contractor is established. This growing awareness of the former provides long-term benefits of this scheme.

The costs also tend to decline for only executing transactions, however, only slightly, because experience itself makes it work more smoothly than in the beginning, e.g. related to the logistics of delivery, quality control etc.

There are additional costs involved in special types of outgrower schemes not illustrated in Figure 10 that is based on traditional transaction cost classification. All producing units in organic and Fair Trade value chains have to be certified by internationally accepted organizations. Also in these cases, the highest costs accrue in the beginning, while subsequently the costs for integrating additional units and monitoring the compliance of the existing ones, are much lower. While today this refers basically to the market niches already mentioned, the described trend to implement challenging standards even to traditional agribusiness (e.g. EUREP-GAP, see Box No. 2 in 4.1), and the question of how to cover certification costs for small producing units, will apply to many more value chains in Sri Lanka.

Thus, it is evident, that the overall costs of maintaining an outgrower scheme are high in the first years of its establishment and tend to decline subsequently. This situation is the opposite as for the sales figures. During the first harvest periods the produce channeled through the scheme will usually be low, because few farmers are integrated and prepared to deliver to the contractor. Additionally, the mentioned potential of diminishing post-harvest-losses will only become reality after significant learning processes that also need time.

As we can see, the establishing relational value chains, mainly though an organized sourcing structure, has to be seen as a mid- to long-term investment of the contracting company. This is directly associated with rather high risks. The establishment of outgrower schemes can fail and it does, as

our empirical research indicates. Failed outgrower schemes lead inevitably to sinking costs as there is no way for the contractor to recover its investment.

Reasons for failure can be manifold, from technical or market reasons to the inability of the involved agents to agree on basic rules or the impossibility to overcome special moral hazard problems related to information asymmetries. Contractors do not know in advance whether outgrowers might actually use the services and goods delivered in a way not meeting the contractors' expectations:

— First, outgrowers might switch to other contractors. Once the outgrowers have benefited from the investment from the contractor (in training etc.), they might be tempted to switch to another contractor, who might be offering higher prices for the produce, since the new contractor does not have to bear the investment costs. Glover and Ghee (1992) found that in the case of Thailand outgrower schemes worked well, mainly under conditions of monopsony.

— Second, outgrowers might use delivered inputs for other crops than those grown for the contractors. This leads to a lower quality or reduced quantity than what the outgrowers would otherwise have been able to produce.

— Finally, credit given might not be properly invested, but used by the outgrower on paying non-crop expenses or on non-contract crops.[65]

We can easily explain the following observations derived from our research after considering these costs and risks of engaging in the establishment of outgrower schemes under the present conditions of Sri Lanka, characterized by high levels of uncertainty. These two observations are:

— The companies that were identified as integrators of relational chains, do not belong to the smallest group of enterprises, but rather to the strata of medium to large companies, as they are the units that can afford the initial investment costs and can take the associated risks.

— Many of these integrators of relational value chains operate in external market segments that in turn lower the uncertainty of international transaction and permit the contractors, to gradually develop their op-

65 Cf. Baumann (2000).

erations. These market segments are, for instance, the organic and the fair trade market. But also companies operating in traditional sectors mentioned that they work with long-term-partners in the markets that in some way buffer market fluctuations.

5.2.4 Vertically-integrated chains

Finally, we have come across what we refer to as "vertically-integrated chains". These chains are characterized by the agents identifying themselves as belonging to the chains. For instance, we visited Renuka Agro Exports, a company catering value added sub-products of the coconut certified organic to European and other markets. Renuka owns coconut plantations, where part of the land is leased to families for their subsistence. These families also work for Renuka in the plantation as part of the workforce for agricultural and the initial processing activities. On our scale of analysis, vertically-integrated chains represent the highest degree of interaction among the agents as they all operate for the same company, processing and exporting specific produce.

Several of the advantages of relational chains described earlier can be found in the vertically-integrated chains as well, namely the close relationship between the exporters/processors and their suppliers and the traceability of the produce. An additional advantage of vertically integrated chains with regard to relational chains is that they usually include large scale operations, such as plantation farming, that lead to economies of scale. An effective division of labor can be introduced, and transaction costs can be greatly reduced. Implementing new rules and changing production are much easier to achieve than in fragmented chains. This allows for smooth operations of vertically integrated chains and also adds to the direct control of the supply base.

However, a high level of investment capital is required to launch an integrated value chain. As a result, this might only be an option for relatively powerful players, who are already established agents with high investment capital resources. Companies with vertically integrated value chains face relatively high risks associated to changing demand patterns or price fluctuations for their main crop.

Although such a system would be advantageous in terms of catering to high-end OECD markets and in producing high value-added products,

such as organic produce, one important precondition determines the setting up of an integrated value chain, namely the access to land. We have seen that land is a very complicated issue in Sri Lanka. As mentioned earlier, the prevailing system of land acquisition and leasing can act as a big deterrent for major investment projects.

5.3 Links of Sri Lanka's value chains with the international markets

Up to now, we have only focused on the national or "inbound" part of agribusiness value chains. The conceptual approach chosen for this study, however, parts from the existence of *global* value chains and asks for the relations between international buyers or processors on the one side, and producers in developing countries. In this regard, the outcome of our research differs somehow from the results seen in other sectors (garment industry), countries and regions (e.g. Kenya and Latin America).

The export gate for the mayor part of Sri Lanka's export crops, emanating from market based or weakly linked value chains, is until today made up by exporting companies with a more or less dense and established network of trading partners mainly in the traditional markets, such as the Middle East or Pakistan. The younger export companies (integrating relational chains) often count on some strategic partners in the export countries. This is mainly the case when new products are developed and introduced into the market. However, these companies rely on rather traditional ways of identifying trading partners, such as the exposition of produce on international trade fairs with regard to many (even value-added) products.

We found no typical case of "buyer-driven" value chains in the sense that an agribusiness value chain was structurally linked to one or very few international buyers under conditions of clear subordination regarding the terms and parameters of the relationship. The main explanation can be found in significant differences between Sri Lanka and other agents in the international agribusiness sector. Sri Lanka is not an interesting location for large-scale sourcing by international lead firms, except for tea and minor plantation crops. The mere smallness of the territory, the atomized land tenure structure and rigid land policies are clear disadvantages in this regard, because these factors raise the overall costs of sourcing while allowing only rather small quantities to be purchased. Additionally, the long

lasting civil war followed by a situation of latent conflict didn't help. It neither encouraged global players to invest or engage on a long-term basis in Sri Lanka, e.g. in order to qualify suppliers.

6 Social inclusiveness of an export-led growth in agribusiness

We have seen that the different types of value chains exhibit different sets of advantages and disadvantages with regard to the future development of an internationally competitive agribusiness sector. Starting from the assumption that the knowledge intensity of value chains increases due to the new requirements on the international markets, it becomes clear that competitiveness is correlated with a high degree of information flow along the chain, be it quality, price, quantity, or standards related. Under these circumstances, the market based and the weakly linked chains are not very likely to offer promising options for the future. Increasing the numbers or enlarging the vertically integrated value chains does not seem feasible in the case of Sri Lanka, because of the legal restrictions we referred to earlier. Policy changes in this respect would very likely increase social tensions.

Thus, under the given framework conditions of Sri Lanka, the development of *relational chains,* as described in Section 5.2.3, is the most promising option for the future development of an agribusiness sector that is competitive in the demanding international markets. As we will show in the following chapter, the same type of chains at the same time have the highest potential for social inclusiveness as it links small-scale producers with stronger agents on the basis of mutual interest.

We will discuss aspects of social inclusiveness following the scheme of four different types of value chains identified in Sri Lanka. In a first step, we portray the value chains that exist predominantly. These are disintegrated and weakly linked value chains that have shortcomings with regard to social inclusiveness. Then, we analyze the risks and opportunities of the two alternative models with increased competitiveness, the strongly linked and the vertical integration.

6.1 Disintegrated and weakly linked value chains: shortcomings and opportunities for social inclusiveness

The predominant type of value chains that have been identified in Sri Lanka's agribusiness are characterized by traditional relations between small-scale producers, middlemen, processors and exporters. The shortcomings of these linkages with regard to social inclusiveness are evident. These shortcomings are analyzed under the concepts of power and information asymmetries under the static perspective and the absence of learning and upgrading possibilities, considering long-term dynamics and development.

— Even with a rather well established road system[66] post-production logistics is a severe bottleneck in the development of Sri Lanka's agribusiness, leading to exceptionally high post-harvest losses. Due to the highly scattered production structure and the lack of producers' organizations, smallholders are highly dependent on middlemen to take their produce to the markets. **Power asymmetries** are especially high in the case of highly perishable products, while the bargaining position of the farmers is better in the case of paddy and other more durable goods. Unequal distribution of power is aggravated by **information asymmetries.** This basically means a lack of access to the market; therefore, to price information. This is especially true among unorganized farmers in remote locations.

— The position that farmers have in market based value chains cut them off from important information emanating at the lower end of the chains, i. e. at the point where exporters receive valuable information about market trends with regard to consumer preferences, new legal requirements, and price trends. There is no regular feedback about the acceptance of delivered produce at the lower end of the chain, therefore, about possible adjustments in product lines, production processes and post-harvest treatment. This prevents farmers from systematic **learning and upgrading processes** that might improve their position within the value chain, e.g. by entering processes of certification.

66 In 2003 81 percent of all roads where paved, compared to 21 percent in the case of e.g. Costa Rica (2000), see Worldbank Data Profile, www.worldbank.org.

A common negative assumption with regard to value chains dominated by middlemen is that they raise transaction costs by increasing the number of links in the value chains. Based on this assumption, farmers would be deprived of a part of the possible earnings. However, a more differentiated look seems to be necessary. First of all, middlemen fulfill necessary functions within agribusiness value chains, namely bundling and transporting agricultural produce. The assumption that farmers might be deprived of otherwise achievable income can only be valid if alternative agents could fulfill these necessary tasks in a more cost-effective way and that the savings would actually benefit the farmers.

There are especially difficult situations where and when middlemen act without having to deal with any competition. This often happens in very remote areas and/or under conditions of a buyer's market, i. e. when the local production exceeds the demand. Then the middlemen will be able to exert a heavy downward pressure on producers' prices.

On the other hand, our empirical research suggests that in the case of Sri Lanka many middlemen enjoy the confidence of farmers, mainly when they belong to the same local community. Because of these conditions, the role of the middlemen within the value chain may be much more positive than described above. Their potential to exert power and exploit information asymmetries might be counterbalanced by social obligations. They might even conceive their role as developing the local community passing on the relevant information from the lower end of the value chain and stimulating innovations in the agribusiness sector.

One can expect structural changes to occur in many value chains in response to the increasingly demanding requirements on the markets. This might imply a disintermediation in form of the elimination of middlemen. However, empirical evidence suggests that in some cases, better than merely crowding out these agents, the middlemen should be integrated under different terms in new relationships and closer linkages, e.g. as lead agents in outgrower schemes (see below).

6.2 Inducing strong linkages and social inclusiveness in Sri Lanka's agribusiness value chains

In Chapter 2.3 three organizational solutions are mentioned that may reconcile competitiveness in agribusiness with social inclusiveness, namely cooperatives and other types of organizations, outgrower schemes and Forward Sales Contracts. In our empirical research we found the two latter as highly relevant in the case of Sri Lanka, while the first one is somehow discredited due to negative experiences in the past.

Sri Lanka has seen various approaches of **horizontal organizations** among small scale farmers, mostly in a rather top-down manner organized by public sector institutions. Since the 1980s, different organizations have launched programs to integrate organized farmers especially into export production. These programs have been given different names (Export Villages, Export Processing Villages, and Cluster Villages) and have followed slightly different concepts. They have basic common features: they induce farmers of special areas to focus on one or few crops in order to allow economies of scale for processing and/or export. In some of the schemes, the state or private agents invest in packaging and/or processing plants close to the nucleus of the farmers' organizations.

While a limited number of these projects have shown success, the majority have failed. Some of the most important reasons for organizational failures are problems also known from farmers' co-operatives. Often farmers were given administrative roles in the schemes without having received sufficient training. In other cases, smallholders were not loyal to their organization, e.g. when deciding to whom to sell their produce.

6.2.1 Forward Sales Contracts

While the organization of farmers assisted by governmental institutions can be seen as the most interventionist approach to achieve a broad based agribusiness growth, the World Bank has taken Sri Lanka as one of the first countries to implement a mainly market based alternative: the so-called **Forward Sales Contracts** (FSCs).

A forward sales contract is a written contract, in which both parties agree on a pre-determined price (forward price) for a certain product. In addi-

tion, forward sales contracts usually contain specifications on quality requirements, quantities, the kind of packaging and transport required, mode of payments, the period of the contract (ideally the whole season), and provisions to increase and decrease the price in the case of unexpected events or external shocks. Forward sales contracts are usually implemented through bank managers, regional development offices, agrarian service departments, or NGOs, having the role of a facilitator.

The facilitator takes part and mediates the negotiations on the content of the contract between farmers and buyers. The most difficult task of the facilitator is to support the price finding process. The facilitator can periodically provide (farm gate) price information to both parties to reduce information asymmetries. As a consequence, farmers might receive a fairer price for their produce. In addition, information on farm gate prices can be spread through governmental institutions, such as agricultural departments and their extension officers. Another possibility is to diffuse price information through media, like local radio stations, the Internet, and business information service points. Price proposals made by the facilitator can, alternatively, be based on average production costs. A reasonable price for farmers is normally 30 to 50 percent higher than their production costs. Another approach uses the market price of the past season or the world market price of export products. The facilitators usually receive one percent (0.5 percent from each party) as a commission to cover their costs.

The main advantages of forward sales contracts for farmers are that they

— help to overcome harvesting losses and are immune to short term price fluctuations;

— help to improve and to ensure quantity and quality;

— help to get access to loans.[67] These loans can be used to acquire technology and seeds; thus, it leads to higher yields;

— help to depart from an expensive subsidy system by further integrating farmers into market dynamics.

67 Forward sales contracts are accepted as a collateral by the Bank of Ceylon, People's Bank, Seylan Bank, commercial and development banks.

Despite the numerous advantages, some risks still remain. One hurdle might be that one party does not accept the system and does not want to agree on a fixed price for a longer period. Another problem could be that any party will not fulfill certain details of the contract or fail completely, e.g. when a farmers sells to a third party that offers slightly higher prices than those established in the FSC. This problem might be overcome through an apex-institution, which monitors the fulfillment of the contracts and provides information about failed and successful contracts, e.g. through negative and positive listing to facilitators, buyers, and sellers. In any case, as farmers tend to be the weaker part of the contracting parties, their access to arbitration systems should be guaranteed. Experience with existing FSC systems has shown that many contracts do not comprise all the details mentioned above. These contracts often only exist on a verbal basis, making it difficult to bring cases of non-compliance to court.

FSC can create avenues to limit the risks which are related to outgrower schemes. First, the price risk of outgrower schemes can be reduced through the pre-determined price on which the contracts are based, thus, minimizing room for price manipulations. Second, the dependency of outgrowers on contractors can be reduced by obtaining loans from banks involved in the business transactions. This refers to situations where the contractor is the most important or sometime the only credit grantor for the farmer. In these cases, farmers have severe limits in their bargaining power in commercial translations if they are in dept, and this leads to the risks of exploitation and dependency.

To sum up, FSCs might turn out to be a good tool to reduce the risk of price fluctuations for farmers and to assure higher quality produce for buyers, allowing them to respond to more and more challenging markets. Furthermore, they constitute a market-based tool, not involving any government expenditures, and are likely to improve loan performance of local banks. Yet, in comparison to outgrower schemes, FSCs do not involve knowledge transfers. Merging or combining the idea of FSCs with outgrower schemes, hence, appears to be a promising way to capitalize on the positive effects of both tools and to limit their risks and disadvantages.

6.2.2 Outgrower schemes

Some of the agribusiness companies interviewed in the course of the research project source their products through outgrower schemes. The pros and cons for the contractors are extensively discussed in Chapter 5.2.3. A general definition is also provided for the outgrower schemes. Now the focus of our interest is the possible contribution of outgrower schemes for the social inclusiveness of export-oriented agribusiness. International experience indicates that the potential for rising living standards for farmers involved exists: Little and Watts (1994) state than in successful schemes, the participants' welfare improves in 50 to 60 percent of the cases.[68] For the farmers included in our survey, the main advantages of being integrated into an outgrower scheme are the following:

— Increased security regarding the cash income received during the harvest periods. The prices are fixed in advance and purchase by the contractor guaranteed, presumed established norms are fulfilled. This lowers the vulnerability of poor farmers' households considerably.

— Access – on beneficial terms – to agricultural inputs, such as seeds, fertilizers, plant protective agents, and products required for post-harvest treatment.

— Access to know-how and up-to-date information regarding products and processes, requirements of the final markets and upgrading opportunities.

— Lowering of certification costs through collective bargaining. This is especially important in organic agriculture, where all production sites have to be certified.

— Finally, in terms of supporting farmers to organize themselves into farmers' associations, outgrower schemes can also be helpful. It is easier to organize groups of producers, who already share common links than to attempt to bring together numerous heterogeneous farmers.

As we can see in Box 3, the number of farmers that can be reached through outgrower schemes is significant. During our research the medium-sized

68 Cf. Little, P. / Watts, M. (1994): Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa, Wisconsin.

company, Lanka Organics had integrated about 1300 farmers in different parts of Sri Lanka. To some extent this is the outcome of the fact that the small farms integrated into the scheme are highly diversified and mainly subsistence oriented, while the outgrower relation with Lanka Organics applies only the commercial crops. This in turn means that the benefits for the farmers are limited to a part of their overall socio-economic coverage. On the other hand, it also contains some of the risks of outgrower schemes widely discussed in the literature under the concepts of hierarchical relations, exploitation and loss of producer autonomy (Baumann 2000).

Box 3: Company Case Study: Lanka Organics

Lanka Organics

Lanka Organics Private Ltd. is a pioneer producer, marketer and exporter of certified organic produce from Sri Lanka. Starting with organic tea in 1992, Lanka Organics swiftly expanded their product portfolio to include herbs, spices, fruit, nuts, and other custom-made organic products. The company now exports to Japan, Canada, US and Europe and is market leader for organic tea in Australia.

One of the founders and directors of Lanka Organics, together with the Neo Synthesis Research Institute (NGO) started the program of Analogue Forest Gardens. Forest Gardens are forests similar to the natural forests of an area in structure and ecological functions but contain trees that yield commercially viable products. These garden models provide besides the produce also microhabitat, clean water and environmental stability. Analogue Forestry is seen as a very effective tool in arresting biodiversity loss, especially important for Sri Lanka with many endemic species. Lanka Organics sources most of its products from these types of gardens.

Lanka Organic runs an outgrower scheme of some 1300 farmers located all over the island with the exception of the conflict areas in the northeast. The outgrower schemes are set up by inviting the villages first and presenting the concept to them. Then anyone interested in joining the outgrower schemes can do so. Farmers who show very keen interest and abilities are elected to become lead farmers, passing on information and knowledge from farmers to the company and from the company to the farmers. These farmers take over the positive functions of the middlemen in a disintegrated agrarian value chain. At regular intervals awards are given to the most productive farmers of the scheme. Most important for the functioning of the outgrower scheme is reliability to build up the social relation with the farmers involved. Besides the outgrower schemes Lanka Organics Ltd. also sources a number of products from its own plantations.

Lanka Organics is also listed as a tea producer for Fairtrade Labelling Organizations International (FLO). The premiums are invested into social community development, improving the housing and health condition of the workforce.

These risks as well as the menace of smallholders to be misused as buffers to smoothen ups and downs in demand or the risk of getting indebted with the contractor are not eliminated, however. They seem to be highly contained especially in the case of contractors certified under the concept of Fair Trade or applying for this certification, therefore, a preferential market access. The concept of Fair Trade explicitly excludes any kind of exploitative relations among agents within the value chains.

Beyond the discussion of fair or unfair relations, we found outgrower schemes to have their limits with regard to their social outreach. A contractor has a set of requirements for eligibility which the farmer need to be met. These are a certain minimum land size and a basic know-how on which to build on. The amount of produce he or she may be able to channel through the outgrower scheme has to suffice to surpass transaction costs. At the same time, the farmer has to be able to learn the content and terms of the relations with the contractor and be able to understand the long-term benefits of being included into the scheme, compared to traditional arms-length relations with middlemen. Thus, there is a tendency to include only the already better off farmers, while creating barriers for poorer farmers to enter. In this regard, the experience in Sri Lanka confirms the earlier findings of Little and Watts (1994).

7 Conclusions for academia and policy recommendations

7.1 Conclusions for the academic research on the value chain approach

One aim of our research in Sri Lanka was to make a "reality check" of the value chain approach, widely applied in recent literature on economic globalization, with regard to the special conditions of agribusiness and Sri Lanka. The approach turned out to be a highly useful instrument for the analysis of complex and dynamic settings in the agribusiness sector. It seems also appropriate for the designing of adequate policies and instruments for overcoming important bottlenecks. For instance, it was indispensable to analyze the relevant upstream links to be able to understand the factors that lead to the weak supply base in a series of value chains, such as spices and essential oils. With regard to the basic dimensions of

the value chain approach, as outlined in Chapter 3, we did find out the majority of aspects to hold for the real-life scenario. However, we detected some shortcomings in the theoretical background and some underlying concepts we were not able to verify in the context of value chains in Sri Lanka's agribusiness.

One important dimension of value chain analysis is the governance structure. The existence of strong players within the chain, with power to set rules and standards, is of interest. A first finding we detected throughout the research is that a mandatory existence of a *lead firm* does not hold for every value chain, which is in line with Raiken / Jensen / Ponte (2000). In fact, we perceived that most value chains in agribusiness are either multipolar driven or market-demand driven. For former, we identified a number of agents along the chain that were able to exercise some sort of standard and rule setting power. For latter, which especially applies to non-branded bulk commodities, we even found that the tough price competition on global markets dictates the rules of the game with no rule setting power for any party except for giving the price pressure of end-consumer markets down the chain. In these cases, only external standards fence the value chains and determine who can enter the chains and who can not. A series of standards, such as HACCP, are indeed getting more and more ubiquitous at least in the food sector.

We discovered companies that actually have a single, strong position in certain value chains. These are, according to our findings, always *brand companies*, i. e. companies with an own brand they market on international markets. These companies have the ability to set rules and standards for the chain, because they have the ability to market their produce on end-consumer markets above the average market price. Consumers are willing to pay this higher price for superior quality, taste, individual design, or other reasons.

In general, we perceived that strong players, which the literature would call *lead firms*, do not prevail in the agribusiness sector. Also *brand companies* play a minor role in Sri Lanka's agribusiness. International big names are only active in the tea sector. For industrial products, e.g. the car industry, private rules and standards are much more important and relevant since product diversification is achieved through technological differences. In the food industry and other agricultural goods, a broad range of quality assuring standards is set by external agents to achieve food safety, hy-

gienic and quality conditions. These standards, however, leave little room for companies to set private standards above that. One obvious reason is the natural growing process of goods.

Hence, strong players in the value chain with some kind of rule setting power exercise their power mainly by setting logistical parameters. Major international companies can dictate minimum quantities to be catered by their suppliers, as well as the crops they need and at what time they need them. If suppliers are not able to meet these parameters, they will find it difficult to enter these global value chains. Many Sri Lankan companies in the agribusiness sector are facing these problems of fulfilling the parameters of supply for major international players, many of them not finding their way into important value chains.

Unlike in other economies with an important export-oriented agricultural sector, like Kenya, Sri Lanka lacks the presence of major international companies. These companies could have been lead firms in the traditional sense. Another possibility would have been brand companies, as we defined them, which are vertically integrated into the respective country and organize their supply-base. This absence of international big names has two reasons. The first one is the overall size of Sri Lanka, where the supply-base is naturally limited. International companies with large-scale retail tend to invest in countries with large scales of arable land, where they can obtain a large supply-base. In addition, Sri Lanka has the specific land distribution outlined before. This prevents the establishment of large plantations and commercial farms, which are generally sought by big international companies as the basis to invest.

One key parameter for achieving competitiveness of value chains is the knowledge-transfer. This parameter brought itself to the top of the agenda throughout our research in Sri Lanka and was being laid out for different types of value chains in Chapter 5. Sri Lanka's agribusiness sector in general lacks a systematic knowledge transfer. Part of this deficit can be attributed to the atomized structure of the supply-base. The absence of major international companies in a variety of agricultural value chains in Sri Lanka is another reason for the poor knowledge transfer. If these companies were integrated into the country, they might have more incentives to provide specialized knowledge and transfer it up the value chain.

The absence of major international companies in a variety of segments of Sri Lanka's agribusiness together with sometimes unfavorable framework conditions results in difficulties for Sri Lankan companies to embark on upgrading strategies. Upgrading is the key to achieving more value-addition on the company level as well as on the level of entire value chains. The awareness of the different upgrading strategies is not a problem in Sri Lanka's agribusiness, as we found out throughout the research. The majority of the companies knows the different options for upgrading and would often like to embark on one of them. However, most companies told us that either the general framework conditions were not conducive for upgrading strategies (e.g. inefficient extension services, not demand-driven R&D), or they were simply lacking the financial resources. For the former shortcoming, the public sector as well as joint private initiatives have to come into play as outlined in our policy recommendations, for purposes of financial backings, joint ventures or other forms of involvement of international companies can solve the bottlenecks.

7.2 Policy recommendations

In the last years, it has become very clear, internationally as well as in the case of Sri Lanka that the design and implementation of comprehensive development strategies cannot be the task of neither the private nor the public sector alone, but that joint efforts have to be taken in order to achieve significant impact. Below, we have summarized some basic recommendations, which we consider pertinent for the organized private sector, the government, and public institutions involved in the promotion of the economy and employment.

The adequate division of tasks between private and public sector is a matter of an ongoing and sometimes highly polemic debate. In our view, the government and the public sector in general have important tasks to fulfill. They provide favorable framework conditions and an adequate institutional support in such areas as education, research and development as well as the provision of information and services not catered through private channels. On the one hand the private sector should have the opportunity to develop freely without the state meddling. Yet, under increasingly liberalized market conditions, the private sector is obliged to strive to-

wards continuously enhancing its competitiveness in order to guarantee growth and creating employment opportunities.

If public agencies intervene in the case of market failure, i.e. if certain information or services are not adequately catered through private channels, international experience suggests that public intervention should be demand-led and designed in a business-like manner.[69] Three elements appear to be crucial in this respect:

— Substantial fees should be raised to make sure that the beneficiaries are really interested in and esteem the services provided, but also because cost-effectiveness is important in times of growing public budget constraints.

— Incentives to continuously improve the services provided can be created through independent monitoring and evaluation of performance and performance-based resource allocation.

— Public agencies should continuously revise their programs, asking whether government intervention is still needed, and should define an exit strategy (e.g. define who can provide the service in the future, once public funding has run out and encourage private providers to step in.)

The following policy recommendations try to build on this experience and aim at initiating joint efforts of private and public stakeholders with a complementary and fruitful division of tasks between them.

Throughout our report, we generally regard Sri Lanka's future in a step-by-step departure from low-end bulk competition towards higher-market segments of value-added products. Global trends and their requirements have been outlined and discussed in Chapter 4. Sri Lanka will have problems competing in bulk markets in the long-run against producers like Vietnam or Indonesia, on a mere cost-basis.

This general recommendation for Sri Lanka's agribusiness sector should not be understood as "master key", addressing each and every agent in Sri Lanka's agribusiness. Markets especially in China and India are the fastest

69 Stamm, A. / T. Altenburg (2003): Towards an Effective Provision of Business Services – Strategies for Thai-German Development Cooperation, Bonn/Bangkok.

growing ones in the world, not only due to the ever rising population. Sri Lanka can cater to the rising demand for higher quality products in bulk. Hence, for the mid-term, market potentials open for Sri Lanka in this segment. Many of the established trading companies in Sri Lanka can and will benefit from the ongoing and increasing trade with bulk commodities in these regions.

However, a trend can be seen that standards and quality requirements are becoming more stringent even in these markets. For this reason, our general recommendation is that Sri Lanka should upgrade its agricultural production processes in a step-by-step fashion. In the coming years Sri Lanka should find a feasible and reasonable way to capitalize on the increasing trade with India and other countries in the region in bulk commodities, and invest the obtained rents in a continuous and decisive upgrading process to meet higher quality requirements. Thereby, Sri Lanka benefits in two ways: First, it does not have to drastically change its agricultural production processes from one day to another – something that would be almost impossible to achieve anyway –, and second, by investing in the sector's upgrading process, Sri Lanka will be prepared for the future challenges of global agricultural markets as earlier outlined and establish a competitive position in these markets.

7.2.1 A realistic strategy for Sri Lanka's future

Even if a broad and heterogeneous sector like agribusiness cannot be subject to one single "master key", in the case of Sri Lanka it seems important to achieve a clear picture of the priority development challenges. Furthermore, to see how these challenges might eventually be transformed into opportunities under the present conditions of globalization. A basic agreement on the development path for Sri Lanka, involving different stakeholders and ethnic groups, is important alone to agree upon the most effective investment of scarce public resources, e.g. in special education and training, infrastructure and other essentially state functions.

This societal agreement could be seen as a "down to earth" vision of Sri Lanka's future. On the one hand it should be challenging enough to be appealing for the relevant stakeholders and suitable to overcome the barriers of traditional development paths. On the other hand, it should be apt to

be broken down into concrete steps that can lead from today's situation to the envisaged situation in the future.

This terminological specification is important, because in the last years a series of "visions" have been presented by Sri Lankan agents that seem at least highly ambitious for a country with severe governance problems and still at the border of a new outbreak of open hostility between the mayor ethnical groups. An example is the vision of the Sri Lanka Food Processors' Association. Learning from Singapore and Hong Kong, two leading suppliers of processed foods into and out of Asia, the Association envisages Sri Lanka playing a catalyst role in developing a whole new brand identity for the Indian Sub-Continent's food culture. Being well situated within South Asia, Sri Lanka could utilize its locality and function as a gateway connecting a large producer with a large consumer base.[70]

Our interviews with the private sector and with public agencies have shown that many Sri Lankan agents already have a rather clear understanding of how an upgrading strategy with regard to their specific products or sector could look like and that promising ideas for Sri Lanka's agribusiness exist. A series of stakeholder dialogues have been initiated to permit public as well as private agents to share their opinions and develop joint activities to achieve a better positioning of Sri Lanka in the international value chains. In a traditionally fragmented society and economy, as is the case in Sri Lanka (divisions among ethnic groups, schism between private and public sector), the mere existence of open dialogue platforms can be seen as an important step ahead. However, multi-stakeholder fora should quickly achieve implementing functions if they shall be transformed into relevant development tools.

Examples for stakeholder dialogues bearing potential for significant impact are the eight industry clusters established by the USAID funded Competitiveness Initiative (TCI) and the 16 Sector Task Forces, initiated by the former Ministry of Enterprise Development, Industrial Policy and Investment Promotion. Both, the TCI industry clusters and the Sector Task Forces, have aimed at bringing together private sector representatives from

70 De Alwis / Fernandopulle (2003).

every part of the value chain (including horizontal linkages, such as packaging) with government representatives and research institutions.

We consider such initiatives as important since they function as forums for self-analysis and joint discussions on bottlenecks and actions. Based on clear objectives and monitored accordingly, important progress can be reached, as can be demonstrated by the Competitiveness Strategy of the Spice Cluster.[71] On the basis of our research we propose to continue these fora and to extend them to what we would label as **Value Chain Initiatives**. Drawing on the experience obtained through the TCI clusters and the Task Forces, the concept of a stakeholder dialogue could be transferred to other sectors, such as the organic or fruits and vegetables sector. To assure the effectiveness of the Value Chain Initiatives, clear strategies with targets and indicators should be elaborated, complemented with benchmarks, timeframes and clear responsibilities.

Value Chain Initiatives constitute the **overarching framework** for activities in three major fields, described below. We believe that the Value Chain Initiatives integrate a range of instruments suited to:

— enhance chain coordination to overcome Sri Lanka's atomized market structure,

— enable a stable and consistent supply,

— improve the knowledge transfer along the chains.

7.2.2 Value Chain Initiatives

Members of a sector specific value chain forum should be the companies, business associations active in the sector, relevant research institutes and universities, relevant ministries and authorities, labor unions, other representatives of the civil society, and neutral moderators. Also, foreign brand firms which set standards and have access to foreign consumer markets should be invited to participate. The advantages of doing so are presented below. Furthermore, the information flow to and from farmers should be improved, as shown in Chapter 5. For the time being, the low organiza-

71 Sri Lanka Spices Cluster (2002).

tional degree of farmers makes it difficult for them to be heard and their insights known to the council. Some type of second best solution should be found. In the long-run farmers should be assisted to increase their capacity to organize themselves and to lobby for their interests.

The **task** of the Value Chain Initiatives would be to identify common bottlenecks and threats for their line of business and to develop joint strategies to overcome them. Possible fields of action for Value Chain Initiatives are:

— A **sector information system**: To improve the availability of relevant data allowing informed decision making, the Value Chain Initiatives should look at the viability of a Sector Intelligence Center (similar to the Tea Intelligence Center of the existing Tea Cluster). Such a center would provide data about international research on growing and processing techniques, production technology, market trends, development of customer and international standards etc. Giving out information needs to be fostered. It is important to reach remote areas and providing these areas with vital business information, such as market data and employment opportunities. The Business Information System established by the Ceylon Chamber of Commerce is an important step in that direction.

— Sector wide **branding strategies** to lay down the basis for a value addition strategy for Sri Lankan based companies (e.g. geographical branding, WTO recognition of true cinnamon vs. Cassia, or introduction of a label for Analogue Forestry products).[72] Whilst the private sector should look at the respective viable strategy for their sector and products, the public sector should assist in setting up the required legal framework, as has been done, for instance, for the denomination of geographical origin, and could partly fund these activities.

— **Increase attractiveness of links between foreign buyers and local companies**: One possible activity is promoting of a one-stop-shop policy as seen in Malaysia, for example. The advantage of such a policy are reduced transaction costs due to faster and less bureaucratic procedures, helping to regain ground lost to competitors. Another possible activity includes assisting promising small and medium sized

72 Analogue Forestry is a farming concept developed by a Sri Lankan based organization and links sustainable agriculture with maintenance or restoring of forests.

enterprises (SMEs) in identified high potential areas to participate at trade fairs. In addition, value chain initiatives could send delegations to countries that are leaders in the respective sector to learn from them and to get first hand insights on their strategies.

To tackle cross cutting issues, communication and coordination among Value Chain Initiatives are crucial. A joint forum, comparable to the USAID-supported National Competitiveness Council, would allow different Value Chain Initiatives to learn from each other, to share experiences and to gain insights in different sectors. Within such a joint forum, Value Chain Initiatives could also explore new links between different sectors to create synergies and new business opportunities, such as linking the nutraceutical sector with tourism for marketing opportunities, or looking at opportunities to capitalize on the environmental benefits of organic agricultural systems.

7.2.3 Promote and improve outgrower schemes

Outgrower schemes represent a proven strategy to quickly overcome some of the existing shortcomings of the value chains in Sri Lankan agribusiness. To assure quality, quantity, consistency, and constant supply for processors and exporters, specific growing and harvesting techniques as well as coordination of farmers' activities have become key factors determining the success of the value chains. Therefore, a closer cooperation among farmers, processors and exporters is an indispensable requirement. The close linkages formed by contracting companies with the farmers in outgrower schemes allow for economically viable cooperation.

The public sector should assist private companies, which are setting up outgrower schemes by providing a conducive **legal framework** to reduce the transaction costs involved and consequently increase the effectiveness of outgrower schemes. Such a framework should include laws assuring the basic principles of outgrower schemes (e.g. definitions of basic terms and conditions) leaving the private stakeholders only to worry about the specifics. Another essential backbone is an arbitration system or a legal insurance system to assure enforceability of contracts. One way to go here is to build upon the experience of Forward Sales Contracts or develop alternative mechanisms. This legal framework should be developed in the value chain initiatives in close cooperation between the private and public sector

to assure its feasibility and appropriateness. The aim must be a balancing of the risks of each stakeholder involved to enable a win-win situation for farmers as well as contractors to ensure the economic sustainability of the scheme. Furthermore, model contracts developed by the initiatives would greatly support the diffusion of the concept.

The contracting **companies** depend on a supply base; therefore, require close cooperation with farmers, the former have the best incentive system to install and constantly improve the communication among each other. Since contracting companies cover the costs involved, they have the best incentive and ability to identify as well as focus on the most effective **extension services**. Consequently, extension services can be performed by outgrower schemes to a significant extent.

An advantage for the **public sector** would be to allow a reduction of the high number of extension officers and institutions involved in **extension services**. Public extension services should complement the private services, e.g. focusing on farmers not involved in outgrower schemes, advice on crops used by the farmers that are not of interest for contracting companies. The extension services should not be free of charge, but a fee paid by the farmers should cover parts of the costs. Charging a fee would greatly increase the appreciation of the services by the farmers and help to increase efficiency of the services. Again a close consultation within the value chain initiatives would help to identify areas for public extension service and possibilities for cooperation. At the same time, the incentive system of public extension officers should be improved and their success monitored, to assure an even better outcome of this public service. The recent reform made by the Samurdhi extension services is heading into this direction.[73]

Implementing training measures for farmers is a basic **management skill.** These measures could be implemented to improve farmers' performance and to improve the communication between farmers and companies. They could also complement the training measures given by companies running

73 The Samurdhi Authority is Sri Lanka's public poverty alleviation program and provides extension services to the poorest of the farmers under its agricultural development scheme.

outgrower schemes. These management skills would enable the farmers to better evaluate their productivity and to organize themselves to reduce the number of farmers the contracting company has to negotiate with.

7.2.4 Making use of international investors

International buyers and lead firms, which are often multinational enterprises (MNEs), are important sources of information and most often have a large client base. MNEs are the largest source of corporate R&D; therefore, they possess high competencies in terms of technology and know-how. Promoting linkages with these enterprises is one of the most effective ways of triggering technology and knowledge transfer upstream into the value chain. In addition, joint ventures with MNEs and Foreign Direct Investment (FDI) give access to financial resources. Linkages with MNEs can be promoted through the integration of MNEs into the initiatives.

Nevertheless, to support the transfer of knowledge and technology, appropriate investment policies need to be implemented. In the Board of Investment (BOI), Sri Lanka has got a large investment agency, with the capacity of executing powerful investment promotion. Although the BOI has been successful in its role as an FDI *facilitator*, it has been relatively weak in terms of FDI *attraction*. Thus, the BOI needs to focus on targeting the right type of FDI, which matches Sri Lanka's development path, allows for significant technology and knowledge transfer, and which brings along large potential for employment generation.[74]

The possibilities of attracting considerable FDI to Sri Lanka by implementing an improved promotion policy are limited, due to structural problems mentioned throughout this report and due to the still fragile peace process. Thus, ways should be explored to make use of international companies even if they are not (yet) willing to engage in the country. This might be done, for instance, by matching large buyers established in the neighboring states of India with exporters in Sri Lanka, by encouraging knowledge transfer and mutual learning, and finally preparing for more direct relationships in the future.

74 Investment Policy Review: Sri Lanka, UNCTAD, November 2003.

7.2.5 Strengthen the national innovation system of Sri Lanka

Proceeding towards more knowledge-intensive activities requires that in Sri Lanka specific knowledge is created to provide the local agents with unique advantages that will help them to improve and subsequently maintain their position in global value chains. International experience demonstrates that an adequate process of knowledge creation and innovation requires the interplay between private and public sector agents. Even countries that are not competing at the high-end of technology markets need a functioning innovation system:

— Private sector companies are required to invest in research, development, and adaptation of products and processes, if they are willing and able to do so.

— Interaction is needed along the value chain and between developers and users of technology.

— Public sector institutes have to provide supporting services to assist the innovation process in the private sector.

— Between public and private sector agents a close interaction and a dense communication are needed.

Even if research-oriented companies – in the strict sense of the concept – are scarce in Sri Lanka, our survey identified a considerable number of companies that are continuously improving their products and striving to create and apply new knowledge to processes and products. Some of them possess own laboratories for a continuous testing of product characteristics.

On the other hand, Sri Lanka has a series of publicly financed universities and R&D institutes with a high potential to generate new knowledge and to screen the international science system for knowledge relevant and applicable to the situation of Sri Lanka.

In this sense at least an incipient innovation system is present in today's Sri Lanka. However, important deficits and gaps in this system can also be identified, such as:

— A significant number of private companies are not fully aware of the potential a more knowledge based development might have for their future growth and for avoiding risks.

— Few companies have the financial means and the capacities to embark on a strategy of continuous research and development.

— Sri Lanka has not managed to position itself as an attractive location for technology oriented FDI and knowledge-intensive activities of global players.

— The number of technology-oriented universities and research institutes is rather low.

— As in other countries, an important schism exists between the private sector and publicly funded research.

A modernization of Sri Lanka's innovation system should be seen as an important contribution to a strengthening of value chains, rendering possible important new upgrading strategies. Given the limited public resources, priority should be given to measures that may improve the efficiency of the national innovation system as it is today.

One useful instrument to enhance the interaction between the two fundamental parts of innovation systems is to install a standardized system to obtain a back-flow of information from private sector needs to universities, schools, and public research institutes. Elements of such a system may be incentives for university students to work as interns in private companies, design research projects in close cooperation with the private sector; innovative entrepreneurs could be invited to hold lectures and to comment on national curricula. Scholarships for postgraduate studies and doctorate (Ph.D.) could be awarded to young Sri Lankans to be trained at leading international research institutes. They would then have to work for some years in Sri Lanka to reduce the risk of brain drain. In the case of publicly funded R&D, the institutional setting and internal incentive systems should be reformed. Market- and demand-orientation have to be strengthened.

The Value Chain Initiatives could function as forums to identify gaps in the national innovation system. Furthermore, these initiatives could be an important channel to transfer knowledge from national and international research institutes to processors and farmers. The better the flow of information and knowledge gets the better the initiatives are linked to international agents as well as to the farm level.

The market potentials for Sri Lanka's agribusiness, as discussed in Chapter 5, show a promising field of further R&D activities in organic agricul-

ture: Organic agriculture requires fundamentally different growing techniques to fully explore the economic potential of economies of scope and scale as well as to exploit ecological functions and dependencies to reduce production costs.

7.2.6 Capitalizing on standards

Standards are becoming more important as mentioned in Chapter 4. This trend will prevail and bears challenges as well as opportunities for Sri Lankan exporters. Companies will bear the rising cost to comply with these standards and will also need to demonstrate compliance to the standards set by international buyers. On the other hand, standards also decrease transaction costs with regard to interaction with international buyers.

A high-road or branding strategy can only be successful if based on high quality products. The aim is to obtain an identity and reputation for own products by distinguishing them from competing ones through superior quality, taste, design, etc. One food scandal in any Sri Lankan sector would have a devastating effect for the entire sector that would be involved and would discourage common marketing. This threat increases as consumers are becoming more health conscious. Traceability and hygienic and food security standards, such as HACCP, become important to assure the success of any high-road and branding strategy. Therefore, the initiatives should raise the awareness among its members about the needed traceability and hygienic standards and should aim at giving timeframes to fulfill certain minimum requirements within the industry. If hygienic standards become increasingly important to sustain a branding strategy for conventionally produced goods, they become paramount for organic as their customers are the most health conscious.

Certification and traceability is essential to reap all the benefits of the growing organic market. Currently, many farmers in Sri Lanka do actually produce organically (without applying chemical inputs), but cannot afford to become certified nor do they even know about the opportunities of organic certification. A certification system suited for smallholder production systems and creating awareness among farmers would be rewarding aims for an organic value chain initiative.

New expensive **testing facilities** are needed to be able to fulfill more demanding standards. In cases where the testing costs represent a real barrier for Sri Lankan companies, only a share of the testing costs should be carried by the private company, the other part by the government.

7.2.7 Create an enabling environment for successful value chain policies

The impact of specific value chain policies depends to a large extent on the framework conditions set by a range of general policy fields. From the perspective of Sri Lanka's agribusiness, three general policy fields seem to be very significant, namely infrastructure, land, and labor policies.

Infrastructure, such as roads, electricity, and telecommunications, is not keeping pace with rural needs. Furthermore, existing regional disparities reduce the competitiveness of farmers and enterprises in more remote areas. Bearing in mind that transport costs sometimes amount to 20 percent of the market value,[75] road development seems to be a very important issue for the near future. Better roads will not only reduce transportation costs and improve timeliness of supply, but also reduce post-harvest losses. In addition, electricity and telecommunications are crucial inputs to various business activities. Further investment in these areas would greatly enhance the possibility of including SMEs and smallholders in competitive value chains.

Land policy is a sensitive issue in Sri Lankan politics as in most countries of the world. Current land policies are the result of a historic process and try to avoid negative social effects of land concentration. Thus, when looking at possibilities to improve land policies, the national background should be taken into account. Although land markets do affect the competitiveness of agribusiness, a complete liberalization of land markets is not recommendable. Rather, it is sufficient to revise some land regulations to achieve more market-oriented land policies without being socially exclusive.

75 This is outlined in a study conducted by the World Bank (2003): Promoting Agricultural and Rural Non-Farm Sector Growth, Colombo, 3.

The system of land lease should be changed into one of land ownership, to improve incentives for long-term investments into land. Furthermore, the high transaction costs arising for the private sector from the paperwork involved in the leasing process would vanish. In addition, the significant costs of the public sector having to compare and evaluate different investment plans of private companies would not occur anymore.

To increase income generating opportunities for farmers, it is important that they can cultivate their land flexibly and according to market demands. The need of becoming approved by the Commissioner of Agrarian Services to dedicate paddy land to other crop cultivation increases transaction costs and reduces flexibility.

Finally, due to a lack of property rights, and inappropriate administration of private land the land markets do not function well. The existing deed registration system records only transactions and is often insufficient to identify the owner. As a consequence, people often sell and mortgage their land informally, thereby creating an even more complex situation. One promising approach to overcome the lack of property rights is the recently established program of the World Bank, which focuses on a shift from deed to title registration. This reform increases transparency without negatively affecting social inclusiveness

Current **labor laws** are designed to protect the rights of the workforce. With regard to Sri Lanka's rising unemployment rate and the country's comparatively high labor costs, these regulations might in the long-run have negative effects with regard to the creation of new employment opportunities; therefore, adversely affect the interests of both companies as well as workers

Due to strong labor unions, especially in the plantation sector, increases in salaries have been higher than productivity gains. This has led to higher production costs which in turn have a negative impact on Sri Lanka's competitiveness. Therefore, labor unions should not only focus on wage issues, but also on improvements of labor conditions and try to link wage rates to increases in productivity.

7.2.8 Concluding remarks on policy recommendations

We perceive that Sri Lanka has no choice but to embark on an upgrading strategy for its agribusiness sector in the long-run. As mentioned before, this strategy does not signify to radically change production patterns and change trend patterns, as that would not be a feasible nor desirable way. In the years to come, Sri Lanka should and will benefit from an increasing trade with partners in the region, such as India and China, and their increasing demands. At the same time, Sri Lanka should, however, prepare itself for the new challenges of international markets in order to achieve its competitive position on these markets in the long-run. Quality requirements will increase in all parts of the world. Still, the demand for the highest value-added products comes from OECD economies. In certain market segments of Sri Lanka's agribusiness, there is the potential to cater to these highly sophisticated markets. Sri Lanka should support these segments to the most possible extent and obtain the appropriate share of value-addition.

A first step should be a more intense and target-oriented stakeholder dialogue to set clear benchmarks as to what to tackle and what to achieve, taking into account the often diverging priorities. Instruments that are rather easy to put into practice and that will not augment social and political tensions, such as R&D activities, testing, certification of standards, etc. should be implemented as soon as possible. Only in a second step and capitalizing on the achieved improvements, more sensitive issues on the macro level, like the land or labor policies, should be included.

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