ATLANTIC ZONE PROGRAMME

Report No. 58
Field Report No. 103

AN EXPORT MARKETING FOR EXPORTERS OF ROOTS AND TUBERS, PLANTAIN AND PALMHEART IN THE ATLANTIC ZONE OF COSTA RICA

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August 1993

CENTRO AGRONOMICO TROPICAL DE INVESTIGACION Y ENSEÑANZA - CATIE

AGRICULTURAL UNIVERSITY WAGENINGEN - AUW

MINISTERIO DE AGRICULTURA Y GANADERIA DE COSTA RICA - MAG

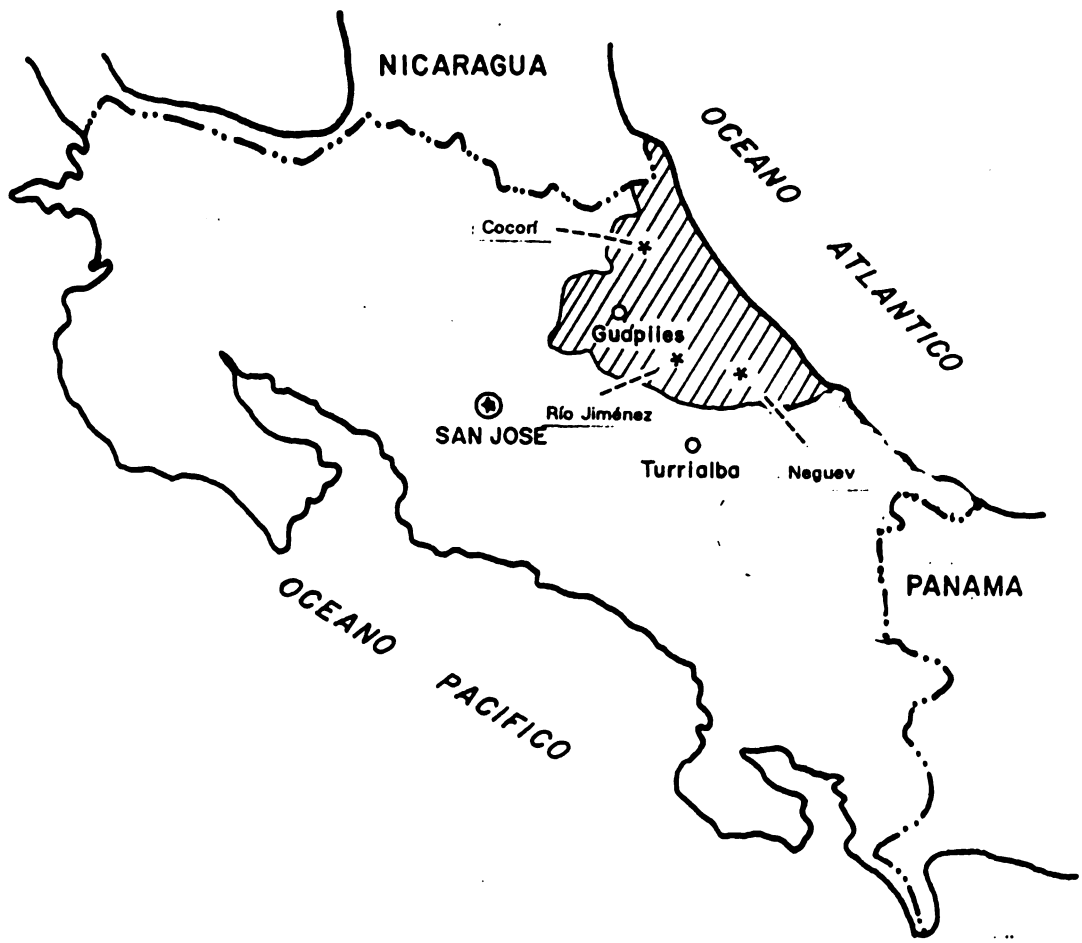


Figure 1. Location of the study area.

PREFACE

General description of the research programme on sustainable Landuse.

The research programme is based on the document "elaboration of the VF research programme in Costa Rica" prepared by the Working Group Costa Rica (WCR) in 1990. The document can be summarized as follows:
To develop a methodology to analyze ecologicaly sustainable and economically feasible land use, three hierarchical levels of analysis can be distinguished.
1. The Land Use System (LUS) analyses the relations between soil type and crops as well as technology and yield.
2. The Farm System (FS) analyses the decisions made at the farm household regarding the generation of income and on farm activities.
3. The Regional System (RS) analyses the agroecological and socio-economic boundary conditions and the incentives presented by development oriented activities.

Ecological aspects of the analysis comprise comparison of the effects of different crops and production techniques on the soil as ecological resource. For this comparision the chemical and physical qualities of the soil are examined as well as the polution by agrochemicals. Evaluation of the groundwater condition is included in the ecological approach. Criterions for sustainability have a relative character. The question of what is in time a more sustainable land use will be answered on the three different levels for three major soil groups and nine important land use types.

Combinations of crops and soils

	Maiz	Yuca	Platano	Piña	Palmito	Pasto	Forestal I	Forestal II	Forestal III
Soil I	x	x	x		x	x		x	
Soil II						x		x	
Soil III	x			x	x	x		x	

As landuse is realized in the socio-economic context of the farm or region, feasibility criterions at corresponding levels are to be taken in consideration. MGP models on farm scale and regional scale are developed to evaluate the different ecological criterions in economical terms or visa-versa.

Different scenarios will be tested in close cooperation with the counter parts.

The Atlantic Zone Programme (CATIE-AUW-MAG) is the result of an agreement for technical cooperation between the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), the Agricultural University Wageningen (AUW). The Netherlands and the Ministerio de Agricultura y Ganadería (MAG) of Costa Rica. The Programme, that was started in April 1986, has a long-term objective multidisciplinary research aimed at rational use of the natural resources in the Atlantic Zone of Costa Rica with emphasis on the small landowner.

GLOSSARY

AID	Agencia Internacional de Desarollo
APPSA	Asociación de Productores de Palmito de Sarapiquí
ASBANA	Asociación Bananera Nacional
AUW	Agricultural Univerity Wageningen
BANDECO	Banana Development Corporation
BCR	Banco de Costa Rica
CAAP	Consejo Agrícola y Agroindustria Privado
CAT	Certificado de Abono Tributario
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CBI	Carribean Basin Initiative
CENPRO	Centro para la Promoción de las Exportaciones
CINDE	Coalición Costarricense de Iniciativas de Desarollo
CITA	Centro de Investigaciones en Tecnologíade Alimentos
CNP	Consejo Nacional de Produccion
CONAYUCA	La Comisión Nacional Asesora de la Yuca
FLACSO	Facultad Latinoamericana de Ciencias Sociales
IDA	Instituto de Desarollo Agrario
IICA	Instituto Interamericano de Cooperación para la Agricultura
MAG	Ministerio de Agricultura y Ganadería
PIMA	Programa Intergral de Mercadeo Agropecuario
SIMA	Sistema de Informacion sobre el Mercadeo Alimentario
UCR	Universidad de Costa Rica
VU	Vrije Universiteit

CONTENTS

PREFACE

This thesis is the result of five months of research in the Atlantic Zone of Costa Rica. It deals with the strengths and weaknesses of several crops, cultivated in this area with respect to the export market. The export marketing channel has an unequal divided power structure. Especially the small farmers are confronted with many marketing problems. I stayed in Costa Rica from June 1992 till December 1992, and during this period I did literature and fieldwork research.

I want to thank all people who have given me good advise, stimulated me, or contributed to some extend with the finishing of this thesis. Together with the references, a list of people who I visited in Costa Rica and who have been of great importance for me, is given. Furthermore I want to thank John Belt, who supervised me during the period in Costa Rica, and Dr. A.van Tilburg for his remarks on the preliminary report.

Hopefully this marketing plan contributes to a positive development of export in agricultural products in Costa Rica in general and the Atlantic Zone in specific.

1 SUMMARY

This study is primarily meant for Costa Rican exporters of roots and tubers, plantain and palmheart, which are non-traditional export crops. Export channels of these products are described and discussed. The exporter of agricultural non-traditional crops is the central actor in this report. The environment in which he operates influences his functioning. For this reason an overview of the whole export marketing channel is necessary to understand the actions of the exporter.

The exporters fulfil a certain role in this channel. They operate as an actor in different markets. Buying markets are not physical markets like Cenada, Borbon, or Avenida 10, which are situated in the Valle central near San José. Buying markets are in fact the contacts with intermediaries, small-scale farmers, associations or cooperatives. These contacts can be loose or laid down in contracts. Exporters are powerful in this market. Nevertheless they are confronted with certain constraints in the markets in which they operate.

On the contrary, the small-scale farmers do not have a strong position in the export marketing channel. They provide the exporter with cheap resources. The problems at farm-level have consequences for the exporters as well as for the farmers themselves. The fact that small-scale farmers offer their produce in small quantities and the fact that quality of this produce differs among farmers, stimulates exporters to take their own private producing area into production.

CONCLUSIONS AND RECOMMENDATIONS

Export marketing channels of Costa Rica do not function perfectly. At each level within the channel operate different actors, who each play their powerful or dependent role.

Conclusions

Costa Rica is a politically stable country. For this reason she has a good reputation in foreign countries and this improves the international trade agreements. Changes in the world economy have impact on the economy of Costa Rica as well. The increasing protectionism of the most important trade blocks, Europe and the United States, is a threat for Costa Rica, as well as for other developing countries.

The deficit on the balance of payments is a major macro economic problem which has to be solved. The government is aware of this problem and in cooperation with the IMF and world Bank a Structural Adjustment Program has been set up. Main objective of this program is to improve the export possibilities of Costa Rica. Promotion of non-traditional export products is necessary.

Costa Rica is trying to become less dependent on a few traditional crops like coffee and bananas. Nevertheless bananas still are a major export product. The recently established import restrictions for bananas from Latin American countries in Europe have very negative consequences for the balance of payment of Costa Rica. Production at the banana plantations will decrease drastically, and this will bring a high unemployment rate in the Atlantic Zone, where large plantations exist.

The government can influence the macroeconomic environment by providing basic necessities to export. Infrastructure, efficient communication possibilities and a strong institutional organization structure, must be of good quality to create the necessary facilities to export.

roots and tubers

The consumer of roots and tubers can be found in the United States, Europe and Puerto Rico. The products are an important starch crop in the food pattern of ethnical people.

The international consumer market for roots and tubers is subjected to large differences in quality. There exist large price differences at the different markets as a result of the trade relationship between exporter and importer. Exporting at FOB conditions means less risk and a higher price for the exporter. Prices at European market are higher than at the United States.

The United States import market is differently organized than the European market. In Miami a large number of importers have a bad reputation concerning paying. In Europe the chance of not receiving money is small.

Exports of cassava out of Costa Rica is still growing. Prospects for tiquisque and yampi at the United States market are good.

The European market is declining. The ethnical consumer group is more adjusted to the western type of live.

There operate about forty exporters in the Atlantic Zone, of which some of them operate as efficient as possible. They try to keep up good relations in buying as well as selling markets. They search for market information and offer a quality product. On the other hand there exist in the Atlantic Zone exporters who are indifferent to the consequences their actions have. These exporters lack sufficient knowledge about offering a quality product. Their main concern is making money in a fast way.

Exporters often have their own producing area. In this way they are assured of a certain amount of produce. Nevertheless they will always need the produce of the small-scale farmer. It's not profitable to keep all production in their own hands. The cobweb production cycle in this sector causes fluctuating prices. In times of oversupply it is more profitable to buy from small-scale farmers.

The produce of small-scale farmers reaches the exporter directly, at the port of the packing industry, or the exporters fetches the produce at farm gate. Exporters receive indirectly produce from intermediaries and sometimes farmer organizations. The price the farmer receive depend on several factors, in times of oversupply it is low. it depends on the type of ex[porter, some of the exporters pay a price which is always a bit above the market price, in this way they keep up a good relation with the farmer. Furthermore, it depends of the type of outlet of the farmer.

Exporters hesitate to buy from farmer organizations. They state that these associations are not enough organized to become a real trade partner for the exporter. It is true that farmer organization still confront a lot of problems, but on the other hand, a strong farmer organization is a threat for the exporter, who prefers to buy from small-scale farmers who are ignorant of market prices. The farmer organization could play a more powerful role in the future.

At the selling market exporters do not have a powerful position. It is difficult to get reliable contacts with foreign exporters and competition in this sector increased considerably in the last years. The low entry barrier in this sector, and the high profit margins in the past attracted a number of exporters who thought it is easy to operate in this market. If products of bad quality reaches United States markets, not only the exporter is duped, because he does not receive his money, but also the small-scale farmer. The result of these actions a worsening a the good reputation Costa Rica has in international markets.

plantain

The United States is the main buyer of plantain. A large ethnical consumer group buys plantain to keep up their eating habits. Colombia and Ecuador are the main suppliers at the this market. The Costa Rican share in this market is only 2 to 3 %

Exports of plantain out of Costa Rica have risen considerably. Nevertheless, surprising trends of destiny of plantain can be noticed. Although the United States still is an important destiny for plantain, exports to Nicaragua have increased substantially.
The export volume to this country in 1991 was even higher than to the United States. Export value to Nicaragua was relatively smaller than to the United States, so prices received at the United States markets are better.

Main reason why exports to Nicaragua haven risen so fast, are the difficult political and economical problems which this country confronts. Costa Rica has the opportunity to provide Nicaragua of large quantities of plantain.

The marketing channel of plantain is dominated by Bandeco. She is the only real exporter in Costa Rica. This creates a situation far from free market competition. Bandeco exactly determines how many hectares of plantain she wants to export.

The fact that production of plantain needs a special maintenance explains the fact that production is in hands of small-scale farmers. Bandeco organizes contracts with farmers who have more than 30 hectares or with cooperatives. Bandeco organizes as well the technological necessities. Price is determined by Bandeco, who operates in the world market. At the moment plantain can not be cultivated in large plantations. In the future new developments in the cultivation of plantain will make it possible to cultivate plantain at large scale. This is a threat for the small-scale farmers.

palmheart

Palmheart is consumed in all countries where it traditionally is produced, like Brazil Venezuela Paraguay and Colombia. In Western countries it is seen as a luxurious product, although it is quite unknown with France as exception. There are two types of palmheart. Palmheart de pejibaye competes with palmheart de Euterpe. Palmheart de Euterpe covers at the moment 85 % of the international market. Prices at international markets are rising at an satisfying rate.

Brazil has always been the main exporter of palmheart. She export palmheart de Euterpe. Quality of this type is considered less, and new suppliers are trying to get a market share in the main importing countries, France and The United States.

Main competitors of Costa Rica are Colombia and Venezuela, who export as well palmheart de pejibaye. Market shares of Asian countries like Thailand and the Philippines are still small. France still is the main importing country. Other countries in Europe are still very unknown with the product and more promotion is necessary.

The export marketing channel of palmheart is a relatively new one, and still developing.
Palmheart exporters need a lot of capital to operate in this market. The processing of palmheart needs a high technology level. For this reason there exist in Costa Rica about fifteen exporters, of which only three are efficient. These exporters try to cultivate all the necessary palmheart at their private plantations, in this way quality control and transport to the processing industry can be arranged as efficient as possible.

The production of palmheart by the small farmers is stimulated by the government with cheap credits. Their produce is bought by intermediaries and sold fresh at national markets or to processing industries who export.

Recommendations

Recommendations can be given to improve the situation for the different actors operating in the marketing channel. Some actions have to be taken by the government or by institutions, other actions can be taken by the exporters themselves.

* CENPRO and CINDE should set up a kind of international marketing campaign, to promote non-traditional export products of Costa Rica and to visit international fairs, organized in eg. Europe or the United States. In this way new contacts can be found. Best is to create a kind of "Costa Rican export brand", like the "Holland" promotion. Costs of visiting such fairs are expensive for the individual company. Maybe the exporters joined in a exporters association could pay an amount of money to support these trips.

* CINDE has an office in Miami, and in Europe. From there she could provide some services for exporters of Costa Rica.
  - Verification of the state in which a product reaches the importer. If this importer complains about the quality, Cinde could check if he is right or not.
  - Determination of the demand for certain products.
  - Establishing commercial relations with new clients.

* The government should have more control on the behaviour of the exporters with respect to price and quality. Exporters should be tested on their capability to export. If exporters do not posses sufficient knowledge, have proved to export products of bad quality, or offer products far under the actual market price some kind of penalty must be introduced. Exporters are obliged to report the quantity and export price of their exported products. This must be checked by an independent institute like CENPRO or the special commissions for each product, like CONAYUCA who are aware of the international price level.

* On the other hand, exporters mentioned the government as an obstructive power to trade. Paperwork should decrease considerably. A reorganization is necessary to get all necessary information from the exporter, without much difficulties for the exporter.

* The government should detect the white washing of drugs money. Individual exporters do not have the juridical power to stop the increasing importance of this development,

It's very difficult to determine what kind of adjustments the exporters themselves could establish to improve the situation in the export sector.

Exporters do not cooperate and are not likely to cooperate because the market is highly competitive. Nevertheless a good market information system could provide the exporters of important information concerning actual supply and demand quantities. In this way prices received by the exporter could give a better reflection of supply and demand.

The exporters of an export product could start up a kind of international market information system. The governmental institutions have proved to provide in-actual information, and it is clearly not their main concern, while exporters are more likely to search for the best.

For this kind of cooperation an association of exporters must be constituted. The marketing department of the CNP could initiate this development. The exporters must be convinced of the advantages of this association.

The small-scale farmer confront the following main problems as an obstruction for development:
* the increasing number and size of private producing areas of the exporters.
* the cob-web production function, which causes fluctuating prices and difficulties in times oversupply
* the lack of stable outlet possibilities.

At this level some organizational and non-organizational options for improvement are:

i) cooperation of the small farmers to create a higher countervailing power with intermediaries. (horizontal development)
ii) vertical integration in the marketing channel, processing and exporting
iii) an anti-cyclical policy concerning choice of product, sowing and harvesting.

A number of farmer cooperatives and farmer associations are active in the Atlantic Zone. They differ in type of product, number of members and level of commercialization. Although these some of these "associations" already play an important role in the strengthening of the [position of the small-scale farmer, most of them still confronts a lot of problems. I have met a few people active in such an association, but more research is needed in this field.

2. INTRODUCTION

2.1. PROGRAMA ZONA ATLANTICA

This study is completed within the framework of "Programa Zona Atlantica", a program for agricultural research in Guápiles in the Atlantic Zone of Costa Rica. In the program the Ministry of Agriculture (MAG, Ministerio de Agricultura y Ganaderia), CATIE; a Costa Rican research institute and AUW, (the Agricultural University of Wageningen) cooperate.

The program exists since 1986. The main, long-term objective is to contribute to ecologically sound, socially acceptable and economically viable ways of sustainable land use in the Atlantic Zone of Costa Rica. Sustainable land use has to be studied both from the "supply side", eg soil type, climatic conditions in relation to the farming system, and the "demand side", e.g. the produce that farmers cultivate for consumption, or for the market (A.van Tilburg, proposal 1992).

The Atlantic Zone is situated to the north of the road Guápiles-Limon, in the Eastern part of Costa Rica along the Atlantic Ocean. It is estimated that about 70 % of the cultivated area consists of pasture land (with trees), about 20 % of plantations (mainly bananas) and 10 % of arable land cultivated by farmers. Subareas are the Cantons Pococí, Guacimo, Siquirres, Cocori, Rio Jimenez and Nequev. The studies carried out by the program have been concentrated in the IDA settlement schemes of Nequev, Rio Jimenez and Cocori.
The climate is very humid and rainfall is on average 3500-4000 mm per year. There's no dry season. The temperature reaches about 28 degrees Celsius. The soils are from volcanic origin (field report 36)

2.2 PROBLEM DEFINITION

During the last decade the area has been changed from character by deforestation and colonization. International companies invested on a large scale in plantations of mainly bananas. IDA (Instituto de Desarollo Agraria) developed settlement schemes on former hacienda's in the Atlantic Zone. The farmers taking part in these schemes originated from different parts of Costa Rica. They acquired property titles in this way. Forests were changed into arable land and IDA supplied the necessary physical infrastructure. The CNP (Consejo Nacional de Producián), the marketing board for food grains (maize, sorghum, paddy and beans), opened buying centres and purchased directly from farmers at support prices which were increased almost every year (Morales).
The support price system was abandoned and the buying centres were closed in 1991 as part of Costa Rica's SAP (Structural Adjustment Program). For other products such as plantain, roots and tubers and palmheart well developed marketing channels seem not to exist.

2.3. THE MARKETING STUDY & OBJECTIVES OF THE STUDY

2.3.1. the marketing study

The main issue of the study is to find out which groups of products, cultivated in the Atlantic Zone, can compete at domestic and/or foreign markets. Generally marketing channels have not been very well developed. The marketing study looks into the reasons why marketing channels are under-developed, and gives recommendations for improvements and future research.

The market study carried out in the Atlantic Zone in 1992 has been divided in three parts.
- Farm-level
- Intermediary-level
- Export-level

Each part is studied by a Msc. student from the AUW. They were supervised by a marketing research assistant, Ir. John Belt and by Dr. A. van Tilburg. This report presents the result of the research concerning the position of the Atlantic Zone in the export market of non-traditional agricultural products.

2.3.2. objectives of the study

The objective of the study is to get a better understanding of the economic performance (effectiveness, efficiency and equity) of the agricultural or food marketing system in Costa Rica, especially related to the Atlantic Zone. Effectiveness determines how well customer demand for service outputs is reached. Equity determines the extent to which problem market segments are served. Productivity determines the physical efficiency of the resources used (Kotler, 1991).

The overall report on the marketing system of agricultural products in the Atlantic Zone of Costa Rica consists of the following parts;
- organization of different marketing channels;
- which types of actors participate in each of the channels;
- interrelationships between actors and their power structure, their transaction costs and margins;
- analysis of their market strengths, weaknesses, opportunities and constraints.

The objective of this study, at export-level, is to investigate the functioning of the export marketing channels of several products and the marketing behaviour of the exporters in these channels in the process of buying and selling. This report gives a description of product flows (fresh or processed) out of the Atlantic Zone to Europe, North-America or other countries. An export marketing plan for different products cultivated by small farmers in the Atlantic Zone is written to make clear which are the strengths, weaknesses, opportunities and constraints of Costa Rican export of some selected agricultural products.

3. ORGANIZATION OF THE STUDY

At export-level the marketing study is organized as follows. It starts in chapter five with a description of Costa Rica as a producer of export crops. In chapter six, international trends in export figures of the main three crops are described. In chapter seven the exporters in the Atlantic Zone, their activities and problems are described. In chapter eight, the role of small-scale farmers as producers of export crops as well as their activities and problems are discussed. Finally, in chapter nine, a marketing plan analyses the position of the exporters and recommends several institutions to improve certain aspects of the commercialization of agricultural products. A distinction is made between small-scale farmers and exporters, both taking part in the export marketing channel. A marketing channel is functioning well if both farmer and exporter earn a reasonable margin.

This study took place from June 1992 till December 1992, and the report was finished in the Netherlands. In Costa Rica a network of people with knowledge about agricultural marketing was consulted. These key-informants helped me to get acquainted with the actual situation, with research-documents in this field, and ideas of how to develop a viable marketing channel. Certain institutions are strongly concerned about the opportunities to sell products by the small-scale farmers. A list of the institutions and their libraries which I visited, can be found together with the references.

One of the objectives is to study what kind of activities, problems, opportunities and strategies, exporters have. For this reason twenty commercial exporters and/or processors were visited. A manager of each company gave answers to series of questions. Some results of these visits are presented in chapter five.

3.1. PRODUCTS IN THE STUDY

The emphasis of the study on exports of agricultural products has been on the non-traditional crops grown by small farmers in the Atlantic Zone of Costa Rica.

A selection has been made out of all fruit and vegetables which are grown for export in the Atlantic Zone. Main crops grown by farmers are plantain (platano), roots and tubers (cassava, name, nampi, tiquisque), papaya, pineapple (pina), maize (elote), pumpkin (ayote), soursop (guanabana), orange (naranja) and palmheart (palmito, or pejibaje)

The first results of the farm-level research made clear that roots and tubers, palmheart and plantain are grown by small farmers. Export figures and government policies show that these products are of considerable importance in non-traditional export promotion. For this reason these products are investigated thoroughly in the export-level study. Products that are not extensively included in this study but are, in my view, important for the Atlantic Zone are cattle and hot chilies. In several IDA settlements schemes, the main activity is animal husbandry. In this report no attention is given to this marketing channel, although this marketing channel is better developed. For this reason it offers more stable opportunities for the small farmer than marketing channels of non-traditional crops. The reason why this sector has been neglected is that the export channel of meat is totally different from crops. More study is needed in this field.

Hot chilies are not included in this study, because not enough information was found during my stay in the Atlantic Zone. No profound explanations can be stated but nevertheless the few experiences I had with this product were positive concerning farmers and exporters.

4. THEORETICAL FRAMEWORK

4.1 THE MARKETING MANAGEMENT APPROACH TO AGRICULTURAL MARKETING PROBLEMS

Fundamental analysis of agricultural marketing problems today calls for a marketing management approach. Meulenberg (1986) presents arguments for this approach.

- Consumer demand with respect to food in Western countries is, in terms of energy intake, satiated. Population growth in Western countries is stagnating. Consequently, stimulating demand for a food product, often at the cost of another, requires an integrated program of the 'marketing mix' from the point of view of consumers' wants and needs.
- Marketing channels for agricultural products evolve towards vertical marketing systems.
- The strong bargaining power of retail chains in the marketing channel forces food industry and wholesalers to integrated marketing operations.
- Decreasing capacities and willingness of governments to support agriculture financially stimulate an agricultural marketing from the consumers' point of view.

Although these arguments can be especially applied to western markets, they are also relevant for export marketing channels of Costa Rica.

In agricultural marketing theory, there is a need for marketing management: organizing the marketing mix (product, price promotion, distribution) in a consistent policy based on consumer orientation. The usefulness of the marketing management approach has been discussed within the framework of the marketing management concepts, objectives, environment, instruments and organizational structure and subsystems. Meulenberg (1986), illustrated how agricultural marketing as a discipline can profit from the achievements of the general marketing theory by using the management approach.

4.2 MARKETING MANAGEMENT

In the western world, the theory of marketing management is well developed. Extensive methods of analyzing strategies of commercial enterprises are available. According to Kotler (1991), marketing management is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives. Marketing management can occur in an organization in connection with any of its markets. Marketing management assumes a certain market power of the actors. Imperfect markets can occur if market power of some actors is stronger than of other actors in the marketing channel. Especially when there are a lot of suppliers and few buyers perfect competition is hardly to realize. The result of this is an unequal divided power structure in which some actors earn a more than reasonable margin.

4.3 MARKETING CHANNEL

Exporters of agricultural products in Costa Rica operate in a marketing channel. As a consequence, they can be seen as an actor within the marketing channel. Theories about marketing channel structure, and marketing functions are used to understand the functioning of the exporters of agricultural products of the Atlantic Zone.

A marketing channel, according to Stern & El-Ansary (1992), is defined as a set of interdependent organizations involved in the process of making a product or service available for use or consumption. Thus a marketing channel is a vertical structure in which products flow from producer to the ultimate consumer and in which actors meet each other at markets (Lutz & van Tilburg, 1993). Each of the actors have their specific goal, desired output level, a macro environment, a task environment and resources to reach its aim. Each commercial channel actor is dependent on other institutions for achieving its goal. The marketing channel is an open system but has boundaries: geographic, economic and human boundaries. The separation of production from consumption, because of the economic rules of specialization, necessitates the performance of the various marketing functions or flows to meet expressed demand for service outputs (Stern and El-Ansary, 1992).

Marketing channels evolve over time in response to forces of change, and this process is continuous. The basic economic rationale for the emergence of channel intermediaries and institutional arrangements can be understood in terms of the need for exchange and exchange efficiency, minimize assortment discrepancies and the facilitation of search procedures. But such rationale provides little information as to why channels are structured one way or another to satisfy this need. A channel can be viewed as a system because of its interdependency; it is a set of interrelated and interdependent components engaged in producing an output.

Food marketing channels vary in complexity depending on, among others, the variety of consumer needs, the variation in purchasing power among consumers, the class of products, the variety of products available, the number of transactions before the product reaches the consumer, the quality of the infrastructure and so on (Stern and el-Ansary 1992). Lutz and van Tilburg,(1993), mention other variables as well, like, the perishability of the product, the degree of specialization in the channel in the marketing channel, or the availability and quality of market information that can be noticed.

4.4 MARKET ANALYSIS

In this study, the exporters of agricultural products were chosen as actor within the marketing channel. As a consequence they operate at different markets. Exporters must attract resources from one set of markets, convert them into useful products, and then trade them in another set of markets. Actions taken by the exporter in a certain market are partly determined by the market power of the exporter in that market. For this reason product flows within the marketing channel are followed, and buying and selling markets are analyzed.

Again, marketing management provides theories to understand markets and power structure within the marketing channel. A marketing plan is a tool to know which role a company will fulfil in relation to its environment. The buying and selling market are part of the exports' environment. In fact, each commercial enterprise has to develop such a marketing plan. I used the concept to describe the export marketing situation of the exporter in the Atlantic Zone. The exporter of the Atlantic Zone is an important actor in the export marketing channel. For this reason he is described thoroughly in this report. Nevertheless two other actor levels are described as well to have a better understanding of the environment in which the exporters operate.

The three actor levels are:

- the government of Costa Rica as and influencer of the macroeconomic environment
- the exporters in the Atlantic Zone as producers and/or processors of non-traditional export products
- the small-scale farmers in the Atlantic Zone as producers of non-traditional export crops.

In this way an export marketing plan for the exporters of several non-traditional export crops, cultivated in the Atlantic Zone of Costa Rica, is written.

According to Kotler, (1991) a marketing plan consists the following sections:

1. Executive Summary
2. Current Marketing Situation
3. Opportunity and Issue Analysis
4. Objectives
5. Marketing Strategy/Options
6. Action Plans
7. Projected Profit and Loss Statement
8. Controls

In chapter eight and nine I will make use of basic concept of a marketing plan according to Kotler. The current marketing situation is divided in an external marketing analysis and a market analysis. The market analysis is described according to Quiros, who formulated some critic steps in analyzing the economic viability of marketing agricultural enterprises for export markets. The opportunity and issue analysis, discusses the strengths, weaknesses, opportunities and threats.

This study is meant to give an overview of the export possibilities, the Atlantic Zone may have in the non-traditional agricultural export sector. Some recommended actions are given. Institutions like IDA, MAG, CNP and private initiatives could take up these actions. Some of these institutions operate at all actor level mentioned above. Programs to stimulate certain actions by for example the small-scale farmer are already initialized, e.g. by CNP.

A marketing channel functions well if each actor earns a reasonable margin for their production or added value. The recommendations, which can be found after discussing in the marketing strategy, are meant to improve the situation of the small farmers or the exporters. A distinction must be made between these two, because not everything which is good for the exporter is automatically good for the small farmer.

5. COSTA RICA AS A PRODUCER OF NON-TRADITIONAL EXPORT PRODUCTS

5.1 INTRODUCTION

In this chapter the Costa Rican government is presented as actor in the agricultural export market. She determines for a great deal the macro- environment of the agricultural export sector. The macro environment of the exporter is also influenced by factors on which the Costa Rican government has no grip. These are described in paragraph 5.2. The international relations of Costa Rica with other countries have also an impact on the functioning of the exporter. Some of these are international relationships are described in paragraph 5.3. In paragraph 5.4 the economic history of Costa Rica is given. The economic development determines the attitude of the government towards the export sector. At the moment the Structural Adjustment Program, which promotes the export of non-traditional products is the most important governmental policy of Costa Rica. Paragraph 5.5 gives an overview of this policy. The Costa Rican government uses some instruments to guide the export sector. In this way she influences the macroeconomic environment of the exporter. These instruments are described in paragraph 5.6. Finally some general export figures are presented in paragraph 5.7. Trends in traditional and non-traditional exports can be found.

5.2 TRENDS IN WORLD ECONOMY

Costa Rica operates in a fast changing world economy. Some major trends are discussed below (Laman Trip, 1991).

* The increasing protectionism in word trade as a consequence of:
- worries concerning a decreasing economic growth
- the rise of unemployment in the industrialized countries
- the growing international cooperation between trade partners and trading blocs.

Symptoms of this trend are e.g. the free trade agreement between the United States, Mexico and Canada, the growing cooperation between the United States and the European Community on one side and Japan/China and India on the other, and of course the creation of the Common Market in the European Community.

* The changing pattern in world economy. Because of the strong economic growth in the Asian countries in the past few years, this area has become an interesting region for foreign investors. Asia is a competitor for many products which Costa Rica produces.

The result of these trends is an increase in competition in world trade (Laman Trip,1991).

Another major change in the world economy is the completion of the European Internal Market. The opportunities and potential threats resulting from this change are given in Laman Trip,(1991). He draws the following conclusions.

- "1992" indicates that protectionism within Europe is expected to increase.
- The internal European market is a gradual process that will be continued long after 1992. And this process still carries the promise of trade improvement between all members of the world's economy.

5.3 INTERNATIONAL RELATIONS OF COSTA RICA

Costa Rica is a country with good international social and political reputation. She is part of several international agreements or cooperation programs. One of these is the membership of CBI (Caribbean Basin Initiative) (The state of Food, 1991).

Developments affecting trade with the United States and Canada are of major importance for the region. The Caribbean Basin Economic Recovery Act, commonly referred to as Caribbean Basin Initiative (CBI), provides tax incentives for foreign investments in beneficiary countries and duty free access to the United States market for a range of products exported by the twenty-three eligible countries. Costa Rica is one of these. The CBI began in January 1984 and remains effective until September 1995. The United States Congress is presently considering a 12-year extension known as CBI-II.

All eligible CBI exports can enter the United States duty-free if they are grown, produced or manufactured in a beneficiary country and meet the rules of origin requirements. These are:i) the item must be imported directly from a beneficiary country; ii) at least 35 percent of the value of the item must be added in one or more beneficiary countries, but United States components may comprise 15 percent of the 35 percent value added requirement; and iii) the product must be substantially transformed in one or more beneficiary countries. CBI exports have increased with 33 percent per year between 1983 and 1987, although these exports were already growing at similar rate in the four years prior to the CBI. More than 90 percent of CBI exports have included only seven product items: beef and veal, rum, tobacco, pharmaceutical products, ethyl alcohol, steel wire and bars, and electrical capacitors. Agricultural products are of minor importance.

Several problems continue to inhibit CBI performance. In particular, the United States's General System of Preferences (GSP) has allowed duty-free access for many Caribbean exports since the 1970's, and an important purpose of the CBI was to broaden the product coverage. Nevertheless many items of interest to the Caribbean exporters are still excluded under the CBI, including textile subject to the multifibre arrangement (MFA). Export diversification (towards citrus, ornamental, exotic fruit and vegetables, etc) has opened promising avenues in some cases, but leaving aside their risky and initially costly exploitation, the potential for these products remains limited.

The above mentioned problems require more fundamental solutions in longer term, including improving productivity and external competitiveness; promoting export diversification, promoting the export of non-traditional and processed products, reducing dependence on traditional markets and further developing the domestic sector as a means of achieving food security, reducing rural poverty and lowering the costly and risky dependence on food imports. A detailed framework for action is provided by the 1989-91 Caribbean Community program for agricultural development, prepared by the CARICOM Secretariat (IICA, 1986).

5.4 ECONOMIC HISTORY OF COSTA RICA

Former economic policies still have a major impact on the actual macro economic environment. A review of the economic history is given to understand the agro-economic policies of today (World Bank, 1991).

Costa Rica enjoyed a period of rapid development during the 1960's and early 1970's, based mainly on increased exports of a few agricultural products, principally bananas and coffee. When the terms of trade deteriorated in the late 1970's, as coffee prices dropped and oil prices rose, the

government followed expansionary domestic policies in an effort to maintain GDP growth. The growing deficits of the public sector resulted in an acceleration of inflation, an appreciation of the colon and growing balance of payment deficits which were largely financed through stepped up external borrowing, especially from commercial banks. This led to a mounting external debt and rising concerns about Costa Rica's creditworthiness.

By 1980 the colon had become seriously overvalued, while continued uncertainties about economic policies contributed to growing capital flight and loss of international reserves. The government allowed the colon to float by the end of 1980, but as fundamental disequilibrium in the public finances were not solved, the situation reached crisis proportions during 1981. GDP declined by 2.3 percent, deficit in the current account of balance of payments rose to 15.8 percent of GDP, and inflation climbed to 37 percent. Faced with rapidly increasing debt service obligations and depletion of external reserves, Costa Rica suspended debt service to all but multilateral creditors in August 1981. In response, foreign commercial banks stopped all voluntary lending to the country. During 1982, the countries economic crisis worsened. Despite a small trade surplus, the overall balance of payments also deteriorated further, mainly because of large interest payment.

The government introduced adjustment measures in mid-1982 to restore a manageable external position and contain inflationary pressures. The government resumed partial debt service payments to foreign creditors and reached debt rescheduling agreements in 1983. As a result, a substantial improvement in the economic and financial situation took place in 1983 and 1984.

Costa Rica's economy deteriorated again in 1985, with GDP growth at 1 percent. As exports dropped, the current account of the balance of payments deteriorated, reaching 8 percent of GDP. Public finances also worsened.

Economic performance improved in 1986, owing to a significant improvement of the terms of trade, as coffee prices rose and petroleum prices dropped, as well as an increase in non-traditional exports. The economy continued its rapid expansion in 1987, with GDP growing by 5.5 percent.

Following a rapid domestic credit expansion in late 1986 and early 1987, the annual rate of inflation rose to 20 percent in the first part of 1987. However, restrictive measures undertaken in the second part of the year brought about a slow-down in the rate of price increases. The expansionary monetary policy in the first part of the year coupled with a sharp deterioration in terms of trade led to the doubling of the deficit in the current account of the balance of payments to nearly 10 percent of GDP in 1987.

A devaluation of 6 percent in January 1988 and a financial crisis in February led the authorities to relax their monetary policy, resulting in a further rise in inflation. Implementation of measures to improve public finances continued. A tax package was send by the government to Congress for consideration and was approved in November 1987. The package called for increases in direct and indirect taxation and would increase tax revenues by 3/4 to 1 percent of GDP on a yearly basis. To control public expenditures, the government enforced a freeze on new hiring to reduce the real value of the public sector's wage bill. Also, support prices for basic grains were to cut to reduce existing distortions in agricultural production and the losses of the public Agricultural Marketing Agency (CAP). Consequently, the 1988 overall deficit of the public sector, including central bank losses, remained at the 1987 level, about 3.5 percent of GDP. However as terms of trade recovered somewhat, the deficit in the current account of balance of payments declined to about 7 percent of GDP in 1988.

Recent economic developments

The government's program to control inflation achieved remarkable results in 1989, when consumer prices increased by 10 percent. This was achieved by combining a restrictive monetary policy with a slow down in the rate of inflation. GDP grew by an estimated 5 percent. The major problem of the Costa Rican economy in 1989 was the deterioration of the fiscal accounts. Virtually all this deterioration occurred due to higher government expenditures, mainly export incentives, wages and social security payments. The larger fiscal deficit contributed to a steep increase in imports, which rose by an estimated 23 percent in 1989 This increase was particularly worrisome following the international collapse of the international coffee agreement and the drop in coffee prices, which is projected to result in a loss of over $100 million in foreign exchange earnings in 1990. Although non-traditional exports maintained their fast rate of growth and expanded by nearly 25 percent, the trade deficit nearly doubled and is estimated to have reached $340 million that year.

Medium term strategy

A new government, led by President Calderon, took office on May 8, 1990. (World Bank, 1991). It was not expected that this change in authorities would modify the focus of the adjustment process. The second phase of the Adjustment Program includes actions in the following areas:

- reform of trade regime and export incentives to promote increased nontraditional exports to third countries,
- additional steps to increase public savings, reduce the overall public sector deficit and increase the effectiveness an efficiency of the public sector investment program,
- improvement in the ability of the financial system to mobilize and intermediate financial resources,
- rationalizing of pricing, marketing and subsidy policies in the agricultural sector to improve its productivity.

The government took measures to correct the fiscal situation and to consolidate the ongoing structural adjustment process. In terms of longer-term adjustment, the development strategy of this government was expected to focus on:

- accelerating the integration of Costa Rica in the world economy,
- encouraging private sector initiatives to expand production and exports,
- reducing the size of the public sector and improving its finances.

Mr. Calderon has stated his intention not only to complete implementation of this program but to continue the adjustment process beyond the current targets. With regard to the third point, a comprehensive reform of the public sector was needed to achieve a substantial and permanent reduction in public expenditures.

In November 1989, Costa Rica and the Advisory Committee of its commercial creditors agreed on a debt reduction package. The package would comprise the entire commercial debt and past due interest (PDI), which amount to $1.6 billion. At least sixty percent of that debt would be bought back at a price close to the secondary market price, and the rest would be exchanged at par for bonds with an interest rate of 6.25 percent. The remainder of the PDI after the buy-back ($130 million) would be treated separately:

- a down payment of 20 percent
- the remaining 20 percent would be refinanced.

The interest on the par-bonds and on the PDI debt in the cash buy-back would be collaterized. The response of the commercial banks has been overwhelmingly positive, as banks holding over 98 percent of the outstanding commercial debt indicated that they would participate in the deal: 63 percent of the debt in the buy-back and 35 percent in the bond exchange. The closing date of this operation was May 21, 1990 (World Bank, 1991).

5.5. STRUCTURAL ADJUSTMENT PROGRAM

The Structural Adjustment Program is one of the most crucial issues of the macro economic policy. Here follows a summary of the background of this program (Lizano, 1990).

The development of a country is in principle dependent on two topics. The quantity available of production factors: labour, land, capital, and human capital. And, on the other hand, the usage of these production factors determines the development of a country. The Structural Adjustment Program is mainly concerned with the second part of these topics; improvement of the use of production factors.

Main reason of initializing a Structural Adjustment Program was the fact that Costa Rica is a poor country with large balance of payment deficits. Another fact is the large number of distortions of bureaucratic nature in Costa Rica. The majority of the public policy regulations were established with good intentions, nevertheless the results were often disappointing or even disastrous. The following distortions had to be reduced:

- custom house protectionism, and other hindrances for international trade(import quotas and export taxes) reduce the size of the trade and the competitiveness of the producers,
- taxes on artificially rising costs of labour,
- financing the deficit of the public sector with means from the financial market which upset the price of the production factor capital,
- the inflation cuts resolutely into the national saving coefficient,
- etc.

The objective of the Structural Adjustment Program is to reduce the negative effects of these distortions and to increase i) the prices of the possessions, services and intermediary and primary products, produced locally or imported, ii) the price of the production factors, and iii) the size of the market in which the national producers operate.

Several principle problems can be noticed during the policy of Structural Adjustment.
- Costs of adjustment
- Velocity of adjustment
- Simultaneity of adjustment in the different sectors

More detailed information about the Structural Adjustment Program in Costa Rica can be found in "Juste estructural en Costa Rica", F.E. Lizano, 1990.

5.6. THE MACROECONOMIC ENVIRONMENT

The macro economic environment has a strong influence on the functioning of export marketing channels. The macro economic environment can be understood as the ensemble of instruments used to conduct production and marketing operations in a particular economy. The following instruments determine the macro economical environment (Quiros Guardia, 1989) .

* **Agro-export policies** include the following actions:
- Determination of the organization of the public agricultural sector
- Institutional coordination to back this orientation
- Incentives for agricultural operations
- Technical assistance
- Marketing and prices
- Tax incentives

The effect of these promotional instruments of the government for the development should be judged as a whole. In Costa Rica agro-export policies stimulate non-traditional agricultural export.

* **Infrastructure** includes the physical facilities constructed by governments in support of production and marketing.
Infrastructure is relatively good developed in Costa Rica. Nevertheless especially in the Atlantic Zone roads are poor, except for the road San-José - Limon.

* **Communications**
Modern, efficient and inexpensive communications are indispensable for effective commercial activities.
Communications are proved to be very good in Costa Rica.

* **Regulations**
Regulations are the full array of normative provisions that govern agricultural production and marketing. These regulations must be practical and realistic, if they are to facilitate the production and marketing process.
A lot of negative comments can be made on the number and complexity of regulations in the export business in Costa Rica.

* **Exchange rates**
Exchange rate regulations, play a determining role in the promotion and development of business operations. It is important to understand clearly how they fit in with agricultural sector policies.
Unfortunately the relation between exchange rate policy and agricultural sector policies was not investigated.

* **Market information**
The ease of modern electronic communication has led to the development of major areas of specialization in market information systems. The need to gain as much information as possible about the market before initiating the production phase can not be overemphasized.

No modern electronic communication systems are available in Costa Rica . Especially at farm-level there's a lack of good information systems.

5.7. FIGURES OF MACROECONOMIC EXPORT STRUCTURE

The government of Costa Rica is conscious of the necessity that export should increase and as part of a World Bank program, tries to increase exports, in particular non-traditional exports. Traditional exports are in order of importance in US dollars: bananas, coffee, meat, sugar and cocoa. Most crops, produced in the Atlantic Zone with exception of the bananas fall under the non-traditional exports. The development of the export structure concerning traditional and non-traditional export products can be seen in table 5.1.

Table 5.1 Traditional and non-traditional exports of Costa Rica in thousand of $ US, 1986 - 1991

year	trad.exp.	non.trad	tourism	total
1986	721.711	404.662	132.700	1.259.073
1987	678.436	492.285	136.300	1.307.021
1988	671.492	583.533	170.000	1.425.025
1989	707.319	748.619	206.600	1.662.538
1990	666.522	809.229	275.000	1.750.751
1991	766.038	824.100	310.000	1.900.138

Source: CENPRO, Dirección General de Estadística Y Censos, Corporación de Zona Francas de Exportación, Banco Central de Costa Rica Y Ministerio de Turismo.

A more specific development of certain agricultural export crops can be found in table 5.2.

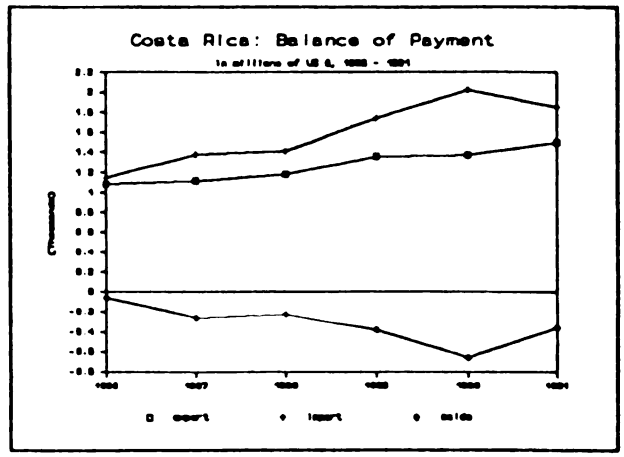
Table 5.2 Total export, traditional and non-traditional agricultural and industrial products in thousands of $ US. 1988-1991

	1987	1988	1989	1990	1991
Total export	1.121.478	1.184.095	1.361.783	1.369.440	1.495.594
Trad. prod.	678.436	671.492	707.319	666.522	766.038
meat	59.591	51.371	48.571	46.247	58.797
banana	242.149	255.739	307.173	316.958	402.872
coffee	334.460	316.361	286.208	245.419	263.624
sugar	11.853	10.005	17.962	33.528	21.372
cacao	1.380	1.664	882	917	423
others	29.003	36.352	46.523	23.453	18.950
Non-trad	443.042	512.603	654.464	702.918	729.556
agricultural	78.221	110.020	131.511	153.389	167.527
ornam. plants	17.764	20.203	21.702	27.242	25.037
flower	7.439	8.558	10.332	11.865	12.973
foliage/leaves	6.464	8.961	11.217	19.235	20.582
chayote	2.825	3.068	5.173	4.185	6.539
cassava	4.510	5.647	7.974	9.410	11.539
roots and tub.	1.419	2.823	4.379	5.310	5.923
pineapple	21.539	31.156	39.706	38.438	38.943
plantain	1.763	1.375	2.013	1.808	2.010
macadamia	779	980	1.251	1.863	1.726
strawberry	701	1.232	1.523	795	559
melon	503	1.478	5.470	8.679	13.880
papaya	902	1.476	1.534	1.804	2.256
petunia seed	2.926	2.687	2.632	3.660	3.519
raicilla	944	6.942	4.162	3.458	1.574
other agraric	7.725	13.434	12.443	15.637	20.467
agro industr.	33.477	45.588	56.808	52.260	52.865
fish	16.351	20.270	39.373	38.909	26.691
shrimp	13.032	17.724	12.020	5.900	9.365
other agroind.	4.094	7.594	5.415	7.451	16.809
industrial products	331.344	356.995	466.145	497.269	509.164

Source: CENPRO, Dirección de Estadísticas y Censos.

Costa Rica experiences since many years an balance of payments deficit. Figure 5.1 shows the development of imports, exports and deficit.

Figure 5.1



Source: Cenpro, Dirección General de Estadísticas y Censos.

5.8. CONCLUSIONS

Costa Rica is a politically stable country. For this reason she has a good reputation in foreign countries and this improves the international trade agreements. Changes in the world economy have impact on the economy of Costa Rica as well. The increasing protectionism of the most important trade blocks, Europe and the United States, is a threat for Costa Rica, as well as for other developing countries.

The deficit on the balance of payments is a major macro economic problem which has to be solved. The government is aware of this problem and in cooperation with the IMF and world Bank a Structural Adjustment Program has been set up. Main objective of this program is to improve the export possibilities of Costa Rica. Promotion of non-traditional export products is necessary.

Costa Rica is trying to become less dependent on a few traditional crops like coffee and bananas. Nevertheless bananas still are a major export product. The recently established import restrictions for bananas from Latin American countries in Europe have very negative consequences for the balance of payment of Costa Rica. Production at the banana plantations will decrease drastically, and this will bring a high unemployment rate in the Atlantic Zone, where large plantations exist.
The government can influence the macroeconomic environment by providing basic necessities to export. Infrastructure, efficient communication possibilities and a strong institutional organization structure, must be of good quality to create the necessary facilities to export.

6. INTERNATIONAL MARKET FOR ROOTS AND TUBERS, PLANTAIN AND PALMHEART

6.1 THE INTERNATIONAL MARKET FOR ROOTS AND TUBERS

6.1.1. introduction

In this chapter, an extensive description of the international market for roots and tubers is given. World production, international prices, main exporters and importers are given. Finally some advantages for the Costa Rican export possibilities are discussed.

6.1.2. production figures

Some world production data can be found in appendix 6.A. According table 6.1, international prices paid for the Costa Rican cassava differ a lot. They are a reflection of world demand and supply. Nevertheless there exist several forces which influence prices on the different markets. Prices paid at European markets are in general higher than at United States markets.

Table 6.1 Average international prices FOB of cassava per kilo at different export markets, in $US, from 1982 till 1990.

Year	United States	Puerto Rico	United Kingdom
1982	0,36	0,49	0,35
1983	0,42	0,42	0,42
1984	0,41	0,46	0,42
1985	0,43	0,48	0,44
1986	0,50	0,51	0,57
1987	0,45	0,48	0,57
1988	0,44	0,48	0,54
1989	0,51	0,50	0,54
1990	0,53	0,56	0,61

Source: Dirección General de Estadística y Censos.

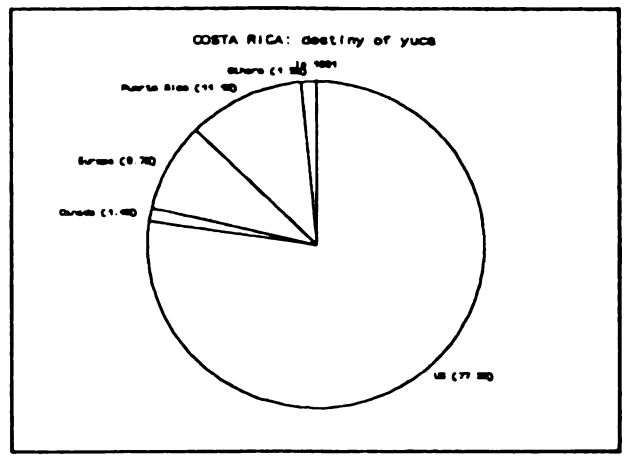
A comparison between average international prices and local prices paid at the Cenada market can be found in table 6.2. These prices can be compared if exchange rates are known.

Table 6.2	Comparison of average international prices and local prices (per kilogram), 1982 - 1991
Year	local (col)	international ($)
1982	6.78	0.35
1983	5.99	0.40
1984	4.24	0.40
1985	7.15	0.42
1986	11.71	0.50
1987	9.33	0.46
1988	7.50	0.45
1989	14.08	0.51
1990	24.42	0.54
1991	17.64	0.42

Source: CENADA and CENPRO

6.1.3. participation of the main importers

The principal importing countries are European countries like, United Kingdom, The Netherlands and Germany. The United States is the biggest importer of fresh cassava. Puerto Rico, Canada and Colombia import Costa Rican cassava as well (ICTA,1991). figure 6.1:



Source: Servicio de informacion comercial, Cenpro, 1992

6.1.4. description of the United States and the European market

The United States market functions differently than the European market. Some main characteristics mentioned by the roots and tubers exporters I have visited, are as follows.

Prices paid at United States markets are in general lower. Exporters who don't have contacts in Europe are dependent on the United States importers. These importers can choose out of a lot of suppliers, so competition on this market is much higher than on the European market. The reason why not so many exporters enter the European markets is the lack of contacts in Europe. It's difficult to develop contacts because the distance to this market is much larger, and exporters are afraid that importers in Europe don't speak Spanish.

The United States market is dominated by a large number of importers of Cuban origin, who have a bad reputation concerning paying. A good paying importer, this means an importer who pays in time, is the most important condition for an exporter to sell.

The prices paid at the United Stated market are in almost all cases on the base of consignation or in other words CIF-prices are received. The price CIF means that the seller receives his money at the moment the buyer receives and accepts the product. The exporter experiences a high risk on not receiving money.

At the European market prices FOB are paid. In this way the exporter receives the money at the moment the product is shipped. The risk of transportation is on account of the importer. Importers are more trustworthy and the importers are better organized. Exporters prefer to operate at the European market.

The European market is much smaller and the number of consumers is declining. The typical ethnical consumer is not that clear any more. People are adjusting to the western type of live and they eat less traditional food.

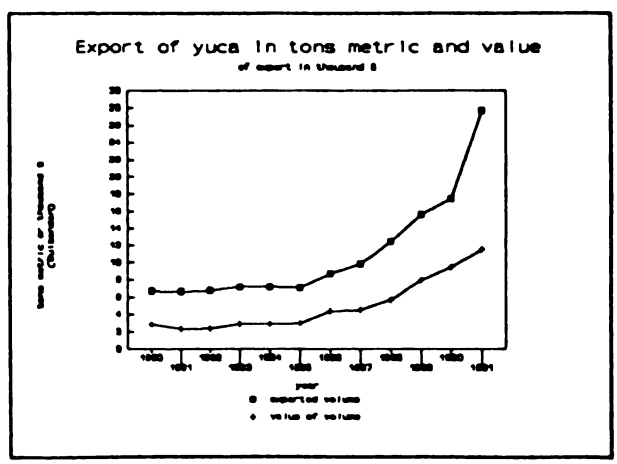
6.1.5. description of the main exporters

The most important countries who export cassava are the Dominican Republic and Costa Rica. The Dominican Republic is main exporter of fresh cassava to the United States. Costa Rica is, according to the Costa Rican exporters the main exporter of frozen cassava to the United States.

6.1.6. description of the Costa Rican export

In figure 6.2 the development in metric tons and value in $ US of cassava can be seen. Especially the last five years exports have risen considerably. The number of exporters has increased as well. Nevertheless the exporters who operated in this market before the great boost, have the advantage that they have knowledge of the Costa Rican circumstances, and they have already established contacts with foreign importers.

Figure 6.2:



Source: Servicio de información comercial, Cenpro, 1992

6.1.7. advantages of Costa Rica

- Cassava produced in Costa Ria has in general a better quality compared to other producing countries, like Brazil and Thailand and the Dominican Republic.
- There exist a growing market in the United States for tiquisque of Costa Rica. Quality compared to tiquisque from the Dominican Republic and Florida is better. Edoes can not compete with those from Brazil and Florida. There exist a large and growing demand for yampi in the United States. At the moment there are no countries who offer large quantities (CNP, marketing department, 1992).
- Costa Ria can take advantage of the fact that there doesn't exist a strict production season. The Dominican Republic, Colombia and Brazil are more tied to a seasonal supply (SEPSA).

6.2 THE INTERNATIONAL MARKET FOR PLANTAIN

6.2.1 introduction

In this paragraph some world production figures are given. The structure of the Costa Rican exports and the United States imports are described. Finally some advantages of the Costa Rican export position are stated.

6.2.2 production figures

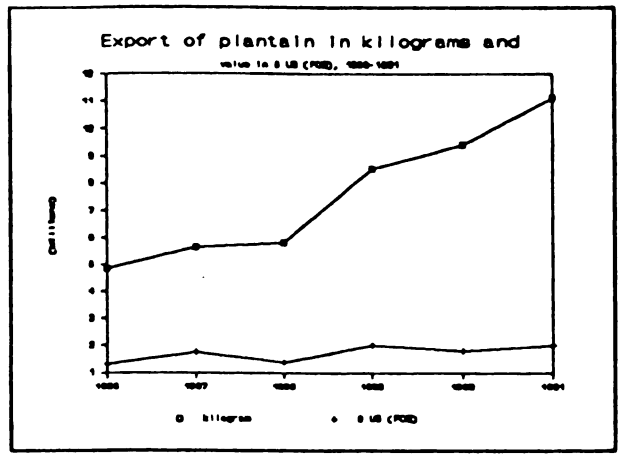
In 1987 world production reached 26,8 millions tons metric of which Africa produced 70 % of total production. Latin America and the Caribbean produced that same year 5,8 million tons metric, of which Colombia contributed 42 %

The worldwide production of plantain increased from the eighties, at a growth rate of 4,2 % annually, mainly because of a strong growth in the African countries (IICA,1991).

6.2.3 structure of the Costa Rican export

Costa Rica exports plantain in large quantities. Figure 6.3 shows how export volume and value have evolved in time. From 1980 till 1983 export in volume was very high although prices received must have been very low, considering the relatively low value of these exports. Export volume dropped strongly between 1983 and 1985. Several explanations are possible for this drop in exported volume. The disease black sigatoga has a strong impact on the quality of the product. If a plantation is infected with this disease the whole production is lost. Probably large areas were affected with this disease and production and exported volume declined drastically. Another explanation could lay in the international market, although no literature is available.

Figure 6.3



Source: Dirección General de Estadísticas y Censos,1991

Last years exports are increasing at a low growth rate. Prices paid at export market differ a lot. A more detailed look to the structure of the export sector is necessary to explain this fact. Unfortunately only information about participation of different importing countries is available and a limited number of FOB prices at the United States market.

I compared the year 1987 and 1990 more detailed to comprehend why exported volume has increased with 66% while the value of this exported volume only augment with 2,5 %

6.2.4 structure of the United States imports

The main buyer of plantain at the moment is the United States, who imports more than hundred thousand tons metric annually. Structure of these imports can be found in table 6.3. The United States market experiences an annually growth rate of imports of 7 %. The concentration of a large Latin American population, as a result of the strong migration to principle Florida and New York, has contributed to the high import volumes from 1984.

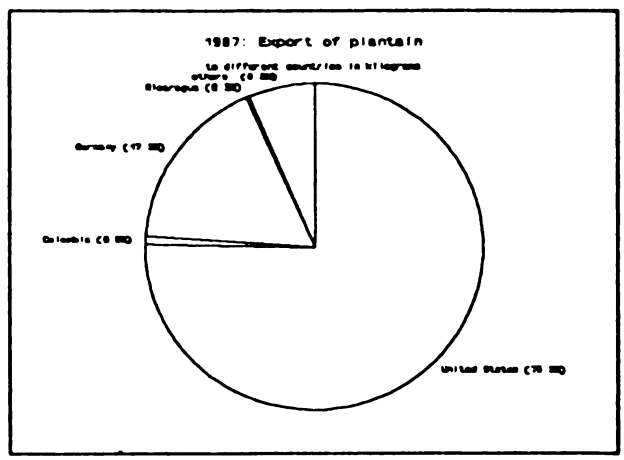
Table 6.3 Import of plantain from Latin American countries realized by the United States in tons metric, 1988 till 1990.

Country	1988	%	1989	%	1990	%
Colombia	58015	53.41	61145	41.89	67178	47.31
Costa Rica[1]	2676	2.46	4762	3.26	2903	2.05
Dominican Republic	997	0.91	4082	2.80	952	0.67
Ecuador	29756	27.40	54114	37.07	47537	33.47
Guatemala	1496	1.87	3447	2.36	1360	0.95
Honduras	6577	6.05	4218	2.88	2449	1.73
Panama	-	-	-	-	136	0.09
Venezuela	9117	8.40	14197	9.74	19504	13.73
Total import	108637	100.00	1456968	100.00	142022	100.00

Source: Fresh Fruit and Vegetables Shipments (1986-1990)

Figure 6.4 and 6.5 show the participation of countries who import plantain from Costa Rica in 1987 and 1991. The main difference which immediately appears, is the diminishing participation of the United States and increasing volume of export to Nicaragua. In 1987 Nicaragua only imported 0,3 % of the total export of Costa Rica, while in 1991 this is increased to 71 %

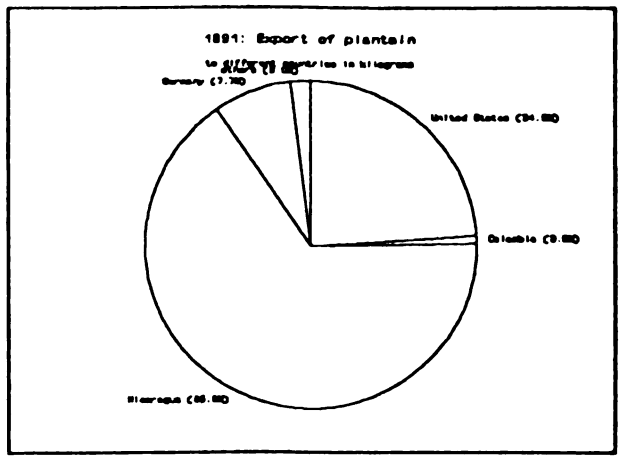
Figure 6.4



Source: Servicio de informacion comercial, Cenpro, 1992

[1] These figures differ from the official exportfigures of export of plantain to the United States, out of Costa Rica.

Figure 6.5



Source: Servicio de informacion comercial, Cenpro, 1992

Table 6.4 shows that prices paid at the Nicaraguan market are only half the United States market prices in 1987. In 1991 Costa Rica receives for each kilo exported to Nicaragua only 0.11 $ per kilo which is one third of the price received at the United States market. The high volume imported from Nicaragua in that year in relation with the low price received at this market explains the relatively low value of Costa Rican exports.

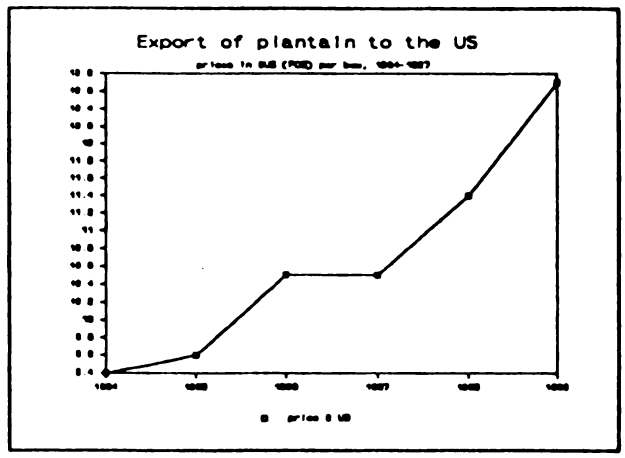
Table 6.4 Exported volume in kilograms, value in $ US and average price paid, of plantain to United States and Nicaragua in 1987 and 1991.

	Total	United States	Nicaragua	Others
1987:				
Volume	5.649.135	4.252.615	15.865	1.380.655
Value	1.762.578	1.309.339	2.825	450.414
Price p\kg		0.30	0.178	0.33
1991:				
Volume	11.121.615	2.659.151	7.285.907	1.176.557
Value	2.009.895	825.728	798.274	385.893
Price p\kg		0.31	0.11	0.32

Source: Servicio de informacion comercial, Cenpro, 1992

Figure 6.6 shows the price development at the US market. Since 1984 a positive growth rate can be noted. Strange enough these FOB prices don't correspond with the accounted price per kilo according to the data of Cenpro.

Figure 6.6



Source: Fresh Fruit and Vegetables Shipments, 1989

Several reasons can be given to explain the strongly increased exportation in a couple of years to Nicaragua.

- Nicaragua experiences difficult political and economical problems. This has a strong impact on the agricultural sector of the country, resulting in a low production level. Plantain is an important food ingredient in the national dish of Nicaragua. Low national production obliged the people to import plantain from foreign countries.
- Since Costa Rica is very close to Nicaragua, and the fact that Costa Rica is in general a good producer of plantain rationalise trade between these countries. Especially the small-scale farmers benefit from these exports. In this way plantain can be sold directly to middleman coming from Nicaragua.

6.2.5 advantages of Costa Rica

Costa Rica supplies a relatively small part of the United States demand. Compared to other producing countries Costa Rica does not enjoys a special comparative advantage. Quality is good, but there is few difference with quality of plantain from eg Honduras.

The increase in export to Nicaragua is an advantage for Costa Rica. Exports to Nicaragua take place without interference of Bandeco. Small-scale producer earn in this way extra money.

6.3 THE INTERNATIONAL MARKET FOR PALMHEART

6.3.1 introduction

Palmheart is consumed in almost all tropical countries where this crop can grow. In principle, only the Latin American countries started to commercialize palmheart internationally. Countries which produces palmheart Euterpe are Brazil, Venezuela, Paraguay, Peru, Colombia. The Philippines and Thailand are exporting palmheart as well. Colombia and Venezuela have since 1988 palmheart de pejibaye as well in production, and are still sowing more. The most important competitors of Costa Rica are Brazil, Colombia and Venezuela.

Palmheart is a crop which is especially promoted to strengthen the balance of payments of Costa Rica. It's development is part of the governmental policy to promote non-traditional export crops.

At the national market as well as the international market similar product presentations are used. Tins and glasses of 177g, 320g, 425g, 830g and 950g. At the national market fresh palmheart and palmheart in plastic bags of 300g are available as well. The plastic bags and the glasses have the advantage that the consumer can see the product. (Ruiz,1992)

Palmheart is a relatively unknown product in international markets, with exception of France.
A consumer study has been done in Costa Rica by SIMA (Sistema de Informacion sobre el mercadeo Alimentario) in 1990. Although this study is not representative for western markets, it can give a few product and consumer characteristics. There were 1000 households interviewed from different social-economic strata. Results can be found in appendix 6.B

6.3.2 prices at the international market

International prices paid for the Costa Rican palmheart have risen considerably. The increase in price has evaluated satisfactory. (Table 6.5) Prices at the national market are considerably lower. (Ruiz,1992)

Table 6.5 Average price of palmheart of Costa Rica received at the international market, per kilogram in $ US, during 1981 till 1991. ([2])

Year	International price	% Variation based on previous year
1980	1.74	
1981	2.61	33.0
1982	1.11	-134.0
1983	1.02	-8.8
1984	1.23	17.0
1985	1.11	-10.8
1986	1.11	0.0
1987	1.48	25.0
1988	1.48	0.0
1989	1.70	15.2
1990	1.80	5.0
1991	2.12	15.0

Source: Dirección General de Estadística y Censos, MEIC.

The average international price of Costa Rica is less than that of Brazil. This can be explained by the fact that Brazil exports only one quality, namely the hearths of the palm, while Costa Rica export different qualities at different price levels, like palmheart extra fine and second quality palmheart pieces. The sub-products pay almost half of the price received for palmheart extra fine. This decreases the average price which Costa Rica obtains in the international market.
In general Costa Rica obtains better prices than Brazil for palmheart extra fine. (Ruiz,1992)

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[2] *The prices of 1980 till 1982 are not representative because of the low exported volume.*

The prices on the international market and especially at the european are determined by the thickness of the piece and it's colour. Thin white pieces are considered as high quality. (ITC, 1992)

6.3.3 structure of the international market of palmheart

The main effort done for the development of palmheart has been the promoting of this product by several governmental institutions like Cinde, to third countries, as part of the non-traditional export promotion program.

The international market for palmheart is relatively small. Approximately 2000 metric tons annually. (Ruiz,pers com) The palmheart de pejibaye competes with the palmheart de Euterpe, which is cut out of the woods. This type covers approximately 85 % of the international demand (Mora Urpi et al,1991).

Palmheart is considered in international markets as a luxurious product, it's not very well known and it's mainly eaten at special occasions. Compared with other canned or bottled vegetables it's an expensive product. (Méndez, 1989)

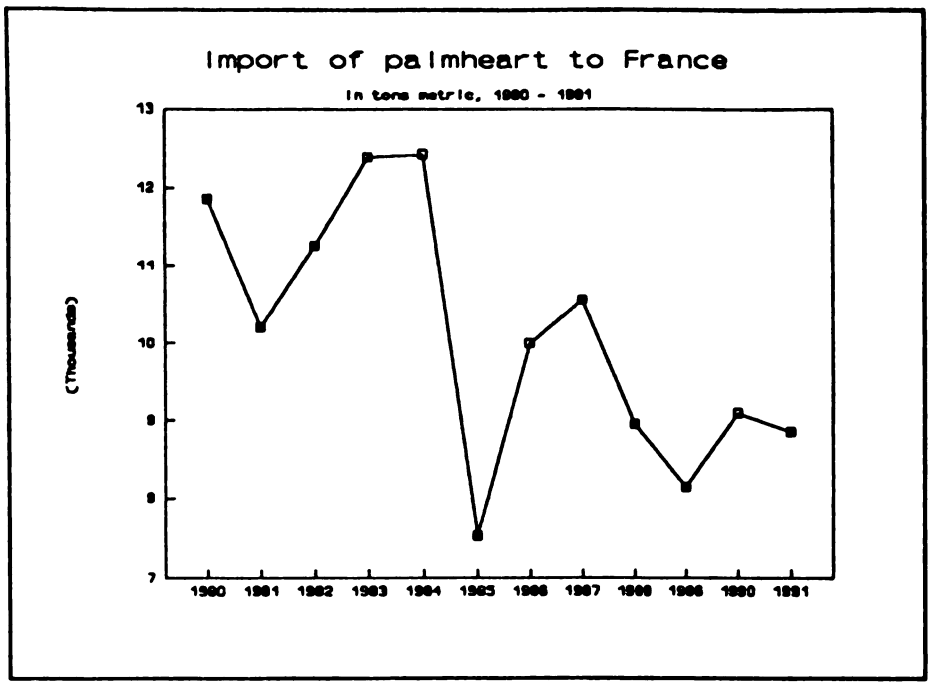
Palmheart is a relatively new product in the international food market. However there already exists about 60 countries, of which the majority import palmheart in small quantities (Mora Urbí et al,1991). Nevertheless thanks to the commercial potential of this product a lot of Latin American countries are investing in the cultivation and industrialisation of this product (ITC, 1992).

The major importer of palmheart is Europe, in particular France, Spain, Italy, Belgium and Germany. Palmheart is consumed in these countries as an substitute of asparagus or artichoke. It's used principle for the preparation of salads. (MEIC,1981 ITC,1992). Other consumer markets are growing like United States, Canada, Denmark, Israel, Japan, and Greece (Zamora,1989).

6.3.4 structure of the French market

In spite of a decreasing volume of imports (figure 6.7) , France still is the biggest importer of palmheart in the world. The prices of canned palmheart suffered from the devaluation of the french franc in 1985. From 1987 this situation recovered with the improving french economy and with the determination of a minimum export price of palmheart set by Brazil.(Mora Urbí, 1989).

Figure 6.7



Source: USDA/USAID, Technical Inquires Group, Unctad/GATT, Centro de Comercio Internacional

The French market got infected with bad quality products from Brazil. This is one of the reasons which kept the market from growing. The percentage imported from Brazil declined and this gives possibilities for other Latin American countries to expand their export. (table 6.7) Costa Rica has increased their participation in the French market.

Table 6.6 Participation of the export countries operating in the french market in the years 1988 and 1991, expressed in tons metric and percentage.

Country	1988		1991	
Brazil	7846 ton	87.65 %	3733 ton	42.17 %
Costa Rica	697 ton	7.79 %	1269 ton	14.33 %
Colombia	97 ton	1.08 %	1915 ton	21.63 %
Venezuela	126 ton	1.31 %	1000 ton	11.30 %
Others	185 ton	2.07 %	936 ton	10.57 %
Total	8951 ton	100.00 %	8853 ton	100.00 %

Source: UNCTAD/GATT, International Trade Centre, CFCE Export Agro-Stat after french customs.

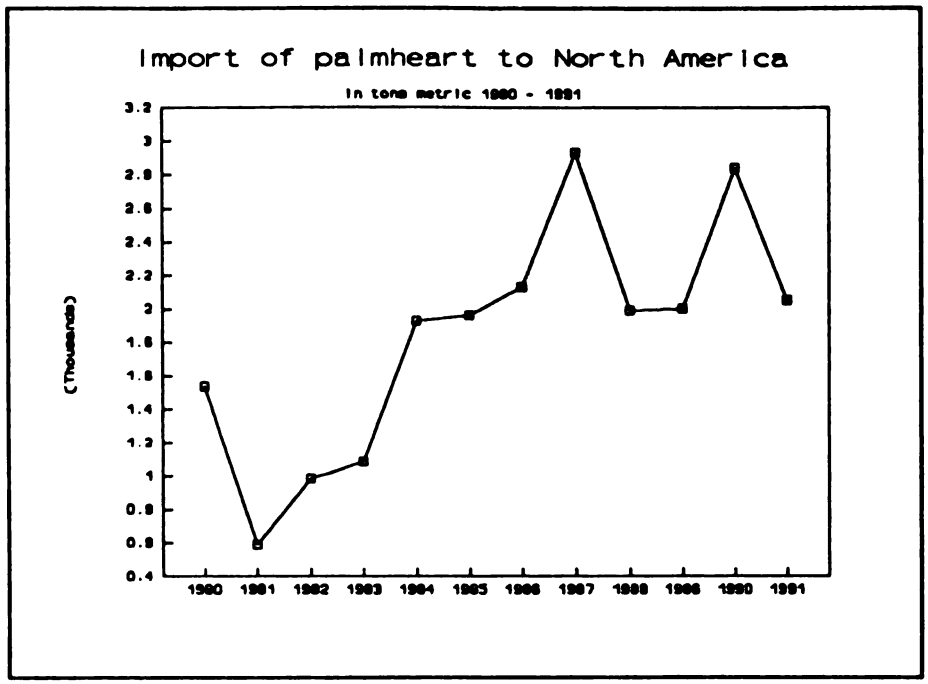
It's important to consider the rapid increase of Colombian participation, which is superior to the Costa Rican participation in the French market. (table 7) The fact that Brazilian participation is decreasing while the Colombian participation is growing makes Colombia the principle competitor of Costa Rica. Colombia produces the same type of palmheart as Costa Rica, namely palmheart de pejibaye, while Brazil produces only palmheart de Euterpe. (Ruiz, 1992)

Another important consideration is the fact that Costa Rica meets a disadvantage with countries who are part of the Andino Pact, like Colombia, Ecuador, Venezuela and Peru. These countries have different access to European markets, and for this reason can make use of a reduction of customs duties. (Mora Urpí et al,1991)

6.3.5 structure of the United States market

Main characteristics of the United States market are the better prices paid and the higher quality restrictions. Because of this last fact some of the industrials prefer other markets. At the moment this market is in quantity much smaller than the French one, which can be seen if we compare figure 6.7 and 6.8.

Figure 6.8



Source: USDA/USAID, Technical Inquires Group, Unctad/GATT, Centro de Comercio Internacional

In contrary to the French market, the North American imports have grown. (figure 6.8) In the course of time, these imports will probably grow more, which is in accordance with an estimation of the International Trade Centre (ITC, 1992). Thanks to the short distance to Costa Rica, the North American market will become the most important market for the palmheart of Costa Rica. (Ruiz, 1992)

During the last three years, Brazil has suffered from a decreasing participation in the North American market, while Costa Rica increased their participation. Thailand has showed the biggest percentage increase in this period. (table 6.7)

table 6.7 Participation of export countries operating in the North American market in the years 1988 and 1991, expressed in tons metric and percentage.

Country	1988		1991	
Brazil	1596 ton	80.04	1406 ton	68.40
Costa Rica	320 ton	16.05	386 ton	18.79
Colombia	0 ton	0.00	16 ton	0.76
Venezuela	30 ton	1.50	8 ton	1.85
Thailand	15 ton	0.75	131 ton	6.40
Philippines	3 ton	15.00	43 ton	2.10
Others	30 ton	1.51	35 ton	1.70
Total	1994 ton	100.00 %	2055 ton	100.00 %

Source: USAID/USDA Technical Inquires Group.

A difference with France is the fact that the North American market has been less affected by the poor quality palmheart of Brazil. This because of the higher quality regulations which restrict this market. This market shows a positive growth line. (figure 6.8)

With these aspects in mind the North American market offers Costa Rica several opportunities for it's development and growth.

6.3.6 structure of other import markets

There exist plenty of markets in the world which are attractive for the exportation of palmheart. Principally those European markets close to the French market, like Spain, Italy, Belgium, United Kingdom and Germany are potential palmheart consumers. (Ruiz,1992)

In table 6.8 one can observe the participation of these markets during the last years. Spain shows the biggest growth and this market offers good opportunities for development. Italy and Belgium-Luxembourg are relatively new markets, which show a positive growth. On the other hand, Germany and the United Kingdom have experienced fluctuations in the participation of it's markets. Both countries show a decrease of imports. Countries like The Netherlands, Denmark, Portugal, Greece and Ireland are very unknown with the product and a big promotional effort is needed to develop these markets. (Ruiz, 1992)

Table 6.8	Import of palmheart to several countries , in tons metric, 1988 - 1990.		
Country	1988	1989	1990
Spain	631	829	1023
Italy	202	322	358
Belg, Lux,	179	311	294
Germany	229	103	145
United Kingdom	1083	150	37

Source: USAID/USDA Technical Inquires Group

6.3.7 structure of the exports of Brazil

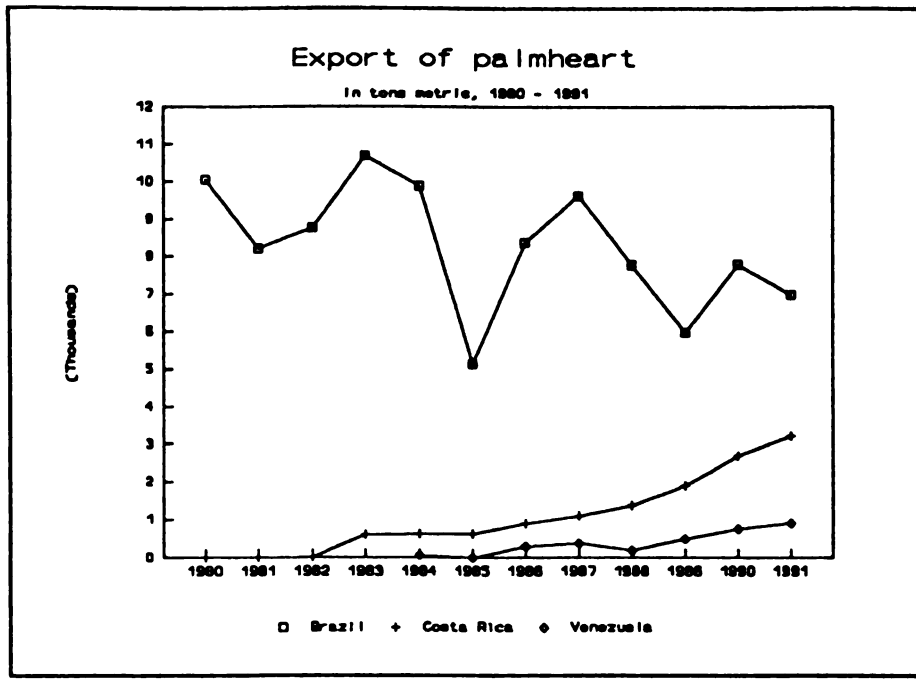
Brazil is the biggest producer and exporter of palmheart in the world, as well as the biggest consumer of this product. The domestic consumption of Brazil is a lot higher than any where in the world. Brazil consumes more than 100.000 tons metric palmheart annually. (Mora Urpí,1991).

The production of Brazil consists of the palm of the specie Euterpe, which is different from the pejibaye which belongs to the Bactris type. Nevertheless there exist at limited scale plantations of the pejibaye type. It's a wild product, extracted from the woods. This type of palmheart, although it does not need much investment and attention, has several disadvantages. The conditions in which the palmheart is exploited and the large distance to the urban centres makes it very difficult to transport the product to industrial plants for processing. This results in the use of small portable plants which can be moved to places close to the harvest. (Mora Urbí, 1991). Under these bad circumstances, the possibility of a fluctuating and often low quality product is the result.

Brazil exports on average 10 % of it's production and consumes 90 %. Actually it dominates the international markets and the Brazilian palmheart covers almost 80% of the world demand (Mora Urpí et al, 1991). In 1990 this was 88% (Zamora,1990)

In the 1950's and 60's Brazil initialized it's first exports of palmheart. They established their brands in different export markets and established their reputation as important exporter of palmheart. However the quality of the product has been fluctuating which slowly permitted other countries to introduce their product. The diminution of the participation of Brazil has opened the international market of palmheart.
(Mora Urpí et al, 1991) (fig 6.9)

Figure 6.9



Source: Dirección General de Estadística y Censo, Embassy of Brazil, Institute of foreign trade of Venezuela, 1991

The market situation of the last few years created particular difficult commercial conditions on international markets. This problem appeared with Brazil as a big consumer-producer who has a big influence on world markets. Quality standards have been neglected and spilled the market. By now, potential consumers are disappointed in the product and this withheld the market from growing. (Méndez,1989)

6.3.8 structure of the export of Colombia

Colombia started investigation of palmheart production in 1970. Palmheart de chontaduro was seen as a good alternative for the coastal Atlantic region. Production on commercial level was initialized and at the moment the several industrial companies have more than 1750 ha. under cultivation, which is still expanding (Velasco, 1991) The Colombian government wants to generate employment in the pacific zone of Colombia because natural conditions are good for the cultivation of palmheart and nowadays they are stimulating investors with several promotional regulations. Several tests are done and have proved that thousands of hectares in the Amazona and coastal parts of the Pacific are suitable for palmheart production. (Velasco, 1989)
In table 6.6 (page 29) can be seen that the participation of Colombia in the French market has risen considerably.

6.3.9 structure of the exports of Costa Rica

Costa Rica produces palmheart de pejibaye which is of the specie Bactris, which is of a better quality than the Euterpe type. It possesses a soft texture, it contains a lot of calories and has the colour cream, which doesn't turn brown quickly, this in contrary to the Euterpe type. (MEIC,1981)

The market for the Costa Rican product tends to increase. The exports of 1985 have not suffered of the devaluation of the french franc, which happened with Brazil. Participation in that market was quite small in that time. (see figure 6.9) In the French and North American market Costa Rica has established a market share which is still growing although competition of other countries is coming up. (table 6.6 and 6.7)

6.3.10 advantages of Costa Rica

Costa Rica enjoys several comparative advantages compared to other producing Latin American countries.

- Costa Rica is closer to the importing countries, in particular USA, Canada. This fact reduces transport costs substantially between harbours of shipping and harbours of destiny.
- The distance between Costa Rican industrial plants and producing areas is smaller than in other producing countries. This aspect together with the good infrastructure makes Costa Rica competitive in transport costs.
- The palmheart de Euterpe, contains a high percentage of polifenol, which is responsible for rapid oxidation of the palmheart pieces. This has a bad influence on the quality of the final product. The palmheart de pejibaye of Costa Rica does not show this effect.
- The palmheart de pejibaye of Costa Rica enjoys a good international prestige, thanks to the high quality standards of the main processing industries. (Appendix 6.C)
- Costa Rica has a growing advantage in technology level in the production and processing part because of the all the research done in this crop. (Zamora,1990)

6.4 CONCLUSIONS

6.4.1 roots and tubers

The consumer of roots and tubers can be found in the United States, Europe and Puerto Rico. The products are an important starch crop in the food pattern of ethnical people.

The international consumer market for roots and tubers is subjected to large differences in quality. There exist large price differences at the different markets as a result of the trade relationship between exporter and importer. Exporting at FOB conditions means less risk and a higher price for the exporter. Prices at European market are higher than at the United States.

The United States import market is differently organized than the European market. In Miami a large number of importers have a bad reputation concerning paying. In Europe the chance of not receiving money is small.

Exports of cassava out of Costa Rica is still growing. Prospects for tiquisque and yampi at the United States market are good.

The European market is declining. The ethnical consumer group is more adjusted to the western type of live.

6.4.2 plantain

The United States is the main buyer of plantain. A large ethnical consumer group buys plantain to keep up their eating habits. Colombia and Ecuador are the main suppliers at the this market. The Costa Rican share in this market is only 2 to 3 %

Exports of plantain out of Costa Rica have risen considerably. Nevertheless, surprising trends of destiny of plantain can be noticed. Although the United States still is an important destiny for plantain, exports to Nicaragua have increased substantially.
The export volume to this country in 1991 was even higher than to the United States. Export value to Nicaragua was relatively smaller than to the United States, so prices received at the United States markets are better.

Main reason why exports to Nicaragua haven risen so fast, are the difficult political and economical problems which this country confronts. Costa Rica has the opportunity to provide Nicaragua of large quantities of plantain.

6.4.3 palmheart

Palmheart is consumed in all countries where it traditionally is produced, like Brazil Venezuela Paraguay and Colombia. In Western countries it is seen as a luxurious product, although it is quite unknown with France as exception. There are two types of palmheart. Palmheart de pejibaye competes with palmheart de Euterpe. Palmheart de Euterpe covers at the moment 85 % of the international market. Prices at international markets are rising at an satisfying rate.

Brazil has always been the main exporter of palmheart. She export palmheart de Euterpe. Quality of this type is considered less, and new suppliers are trying to get a market share in the main importing countries, France and The United States.

Main competitors of Costa Rica are Colombia and Venezuela, who export as well palmheart de pejibaye. Market shares of Asian countries like Thailand and the Philippines are still small. France still is the main importing country. Other countries in Europe are still very unknown with the product and more promotion is necessary.

7. EXPORT MARKETING CHANNEL OF ROOTS AND TUBERS PLANTAIN AND PALMHEART

7.1 ROOTS AND TUBERS

7.1.1 introduction

Roots and tubers have always been an important starch crop in the food consumption of the Costa Rican people, especially farmers. In this chapter a description is given about the trends in production, the national supply and areas of production.

7.1.2 product in Costa Rica

As part of the Structural Adjustment Program, alternatives needed to be found for the cultivation of mainly maize. Maize was not no longer accepted as profitable crop because productivity of this crop is low compared to imported maize.

The roots and tuber sector of Costa Rica experiences a lot of problems concerning production and commercialization. The government decided to create a commission which task is to accompany and to coordinate the necessary measures to improve and support the development of this sector. The National Yuca commission (CONAYUCA) is created in which several institutions cooperate (ICTA,1991). (appendix 7.A)

List of different types of roots and tubers:
In the Atlantic Zone the following types of roots and tubers are cultivated.

- cassava (Manihot esculenta)
- tiquisque blanco (Xanthosoma sagittifolium)
- tiquisque lila (Xanthosoma violaceum)
- chamol (Colocasia esculenta var. antiquorum)
- malanga (C. esculenta var. esculenta)
- fiame (Dioscorea alata)
- yampí (Dioscorea trifida)
- jengibre (Zingiber officinale)

There is just little difference between tiquisque blanco and tiquisque lila. In this report the name tiquisque will be used for both species.

Stolzenbach,(1990) gives information about the history of these crops in the Atlantic Zone. Roots and tubers production has been stimulated by the government as part of the Structural Adjustment Program and the non-traditional export promotion. Roots and tubers, although products cultivated in this area for many years on small scale, is intensified since the 1980's.

Cultivation of cassava can be done during the whole year.It is very simple, only a piece of an old trunk has to be put in the field. In general harvesting takes place after 5 months. Differences exist between Huetar Norte and Huetar Atlantica. From April till June sowing is done by approximately 53 % of the farmers in Huetar Norte, while the farmers in Huetar Atlantica prefer to plant in January till Mars or from October till December (ICTA, 1991). In general there is supply of cassava in Costa Rica during the whole year.

7.1.3 consumer aspects

The national consumption of fresh cassava is estimated at 4.700 metric tons. (ICTA,1991) These data are based on the commercialization figures of the product at the principal markets in the country. It excludes the cassava which is consumed as home consumption. These figures are difficult to estimate. The national consumption of fresh cassava has not increased a lot in the last years caused by the following reasons:

- Bad quality of the cassava commercialized at the national market. First quality is exported.
- The increase of internal prices, which are in certain periods almost the same as the potato.
- The prejudices in certain social strata about the low nutritional value of cassava, the danger of poisoning, and the tendency to put on weight if cassava is eaten in large volumes.
- The routine of the preparation of this crop.
- The supply of substitutes like the potato which competes with cassava (ICTA,1991).

7.1.4 national supply of cassava

The cultivated area in Costa Rica in 1991 was 5.700 ha, with a production of 85.000 metric s based on an average output of 15 metric per ha. Table 1. shows the development of the cultivated area and production from 1982 till 1991.

Table 7.1 Cultivated area of cassava, output and production, from 1980 till 1991.

Year	area	output	production ton-ha.	average price paid
1980	1.308	13,80	18.053	1,17
1981	1.381	13,80	19,054	1,40
1982	1.586	13,80	21.887	6,78
1983	2.500	13,80	34.500	5,99
1984	1.800	13,80	24.840	4,24
1985	1.050	13,80	14.490	7,15
1986	1.137	13,80	15.690	11,15
1987	1.609	14,00	22.526	9,33
1988	1.778	15,00	26.670	7,50
1989	2.000	15,00	30.000	14,08
1990	2.300	15,00	34.500	24,42
1991	5.700	15,00	85.500	17,64

Source: Dirección General de Estadística y Censos, and CONAYUCA, 1991.

The variation in cultivated area and production is the result of fluctuating prices and demand in these years. The increase in output is influenced by the growing number of farmers who make use of the recommended technology. (ICTA,1991)

The production of cassava experiences, like several other crops a cobb-web tendency in production and prices. High prices paid in periods of little production stimulates farmers to plant more of the crop. For example, in 1982, 21.887 metric tons were produced, the following year production rose to 34.500 metric tons. This over production caused a drop in prices paid to farmers. The market slowly recovered from this market collapse. This can be seen in table 7.1. In 1991 repeated the situation itself. A growth of fifty percent of cultivated area caused an oversupply which resulted in low prices paid to farmers (Obando and Viquez,1992). Note: Prices differ during the year considerably as well.

The principal zones of production are Huetar Norte and Huetar Atlantica. In these two regions most of the national supply of cassava is produced.

Table 7.2 Participation in hectares and percentage in cultivated area of cassava in Huetar Norte and Huetar Atlantica, according to region and canton, in 1990.

Region and canton	Cultivated area hectare	Percentage %
Region Huetar Norte		
Grecia	157,94	2,77
Guatuso	185,37	3,25
Los Chiles	410,37	7,20
San Ramón	560,29	9,83
San Carlos	2.838,35	49,80
Upala	37,94	0,67
Sarapiquí	190,44	3,34
Total	4.380,68	76,86
Region Huetar Atlantica		
Guácimo	369,02	6,47
Limón	51,50	0,90
Pococí	770,63	13,52
Siquirres	128,17	2,25
Total	1.319,30	23,14
Total of the two regions	5.700,00	100,00

Source: Censo de cassava, CONAYUCA,1990.

San Carlos has been traditionally the most important production region of Costa Rica. Almost 50% of the cultivated area is situated in this area. (table 7.2) Pococí in the region Huetar Atlantica is the second producer of cassava. If we consider that Sarapiquí belongs to the Atlantic Zone, 26 % of the total cultivated area can be found in the Atlantic Zone. (Obando and Viquez, 1992).

Table 7.3 shows the cultivated area of the different roots and tubers in the Atlantic Zone. In 1987 production of cassava is bigger than of all tubers together. Cassava is traditionally the crop which is exported in large quantities. For these reasons I will give more attention to this crop than to the tubers.

Table 7.3 Cultivated area in hectares of several roots and tubers in the Atlantic Zone, July,1988.							
Canton	Yuca	Tiquis-que	Ma-langa	ñame	Yampí	Total Roots	Tuber
Pococí	341,3	123,4	22,8	88,9	42,3	341,3	344,6
Matina	5,8	2,0	-	3,5	2,3	5,8	9,8
Talamanca	2,5	1,0	1,5	16,0	3,5	2,5	23,0
Limón	27,4	1,0	-	3,4	0,1	27,4	4,5
Siquirres	12,0	-	36,0	-	-	12.0	112,0
Total	607,2	127,7	31,5	114,9	50,2	607,2	536,8

Source: Sancho, H.M., 1988.

7.1.5 distribution of cultivated area

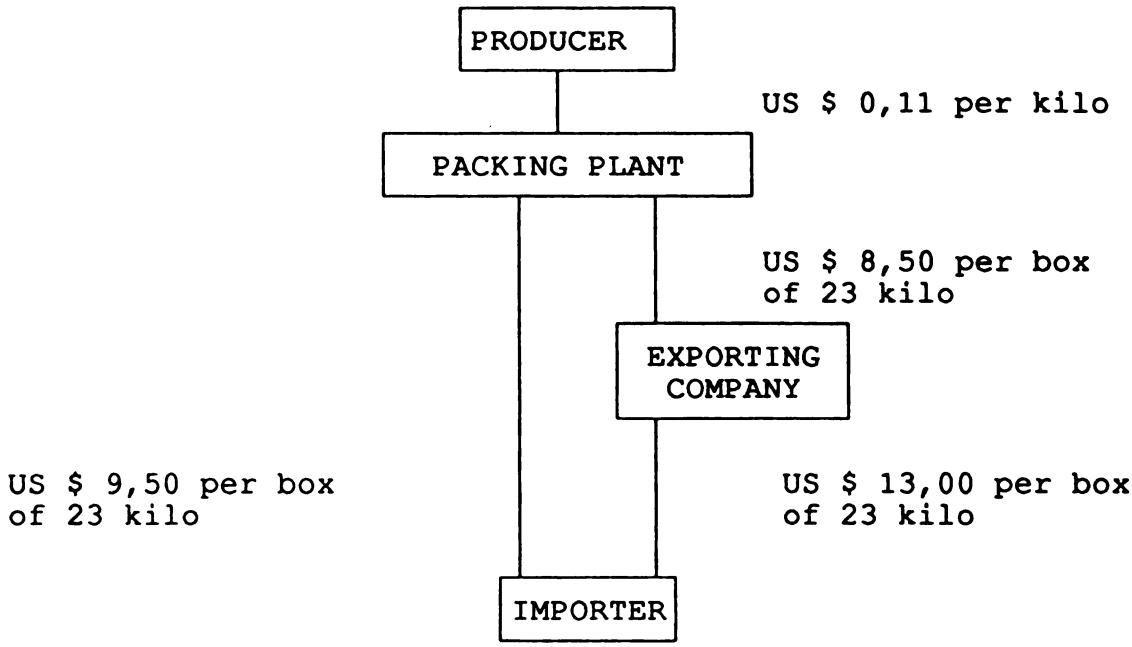
A research done by Overtoom, (1987) in the Atlantic Zone gives some figures about the number of farmers who cultivate or have cultivated roots and tubers. (table 7.4) Especially in the Neguev production of roots and tubers is of great importance for the farmers, 48% of the farmers in this region cultivate roots and tubers.

Table 7.4 Number of small farmers who cultivate roots and tubers in a certain part of the Atlantic Zone, 1987.			
Region	Total nr. of farmers	Nr. who cultivate roots and tubers	%
Cocorí	51	12	24
Rio Jimenez	47	12	26
Neguev	48	23	48

Source: Overtoom, (1987)

7.1.6 the export marketing channel

Figure 7.1: Export marketing channel of cassava, average prices of 1991



Source: Conayuca

There are three levels of production. The producer function, can be fulfilled by the small-scale farmer or by the packing plant, or by the exporting company as well. A packing plant can export themselves. However if they don't have any contacts with foreign clients themselves, they sell to exporting companies which do have sufficient contacts to export. The price they receive is lower if sold to these specialized exporting companies. The considerable difference between the price received by a packing plant and the exporting company is the result of the fact that an exporting company has better and often more contacts, while packing plants are more dependent on incidental contacts. Exporting companies receive a high margin if they buy primary material at low costs and fulfil the packing function as well.

There is an interrelation between the problems of the different levels in the commercialization channel, namely production, processing exporting and marketing. It's difficult to define exactly which problems the farmers confront, have to be solved in the commercialization channel of roots and tubers. (Carmona,1992)

7.1.7 the exporters of roots and tubers

The roots and tubers sector is a growing sector in Costa Rica. The last years an increase in production, exportation and a growing number of exporters can be noticed. To start an export business one needs contacts in foreign countries, supply of primary material, a packing industry, and the official necessary documents to export. The technical installation for the packing industry doesn't need a lot of investment, especially compared to other agro-industrial sectors like palmheart or chile sauces. Processing roots and tubers is easy. In appendix 7.B an explanation of

this process is given. For this reason the entrance barrier is not very high. From 1988, when international demand for these products was high, the exportation of roots and tubers attracted a lot of new and inexperienced exporters.

Processing of cassava:
Costa Rica exports approximately fifty percent of it's national supply. There are three categories in which cassava is exported namely, paraffined, fresh or fried. Description of the processing of these products are given in appendix 7.B. In the period 1979 till 1988 export of cassava hardly had any importance. From 1988 exports have increased with an annually growth rate between 16 and 20 % (ICTA, 1991)

- Fresh cassava for the export: Fresh cassava is exported in large volumes. If cassava is treated well, selected, dried and paraffined, it is less perishable, and transport by ship is possible. Bad quality parts can affect the whole container.

- Frozen cassava:
Cassava is exported frozen as well. Technology level and costs of the freezing installation are considerably higher than in the case of fresh exportation. For this result there only operates a limited number of exporters in this kind of export segment. For more financial information I refer to Obando and Viquez (1992) who have done a research of the operational functioning and financial aspects of an export company of fresh and frozen cassava.

- Fried cassava: In Costa Rica fried cassava is a snack which is consumed mainly national. Quality of this fried cassava is in general not very high. There exist however one company which processes fried cassava chips for the export. Quality needs to be high. The processing industry "Mejores Alimentos de Costa Rica" processes cassava and plantain. A description of this company is given in 7.C.

-Industrial products, starch of cassava.
The supply of fresh cassava for the production of starch is estimated at 7.000 metric s annually, while the demand 1.293 metric s monthly.
In Costa Rica exist only five industrial plants which produce starch. They experience limited financing possibilities and for this reason they only fulfil 30 % of the total national demand. (ICTA,1991)

To understand the functioning of the exporters, they were asked what the biggest problems in the export sector are. Following an explanation of these problems, mentioned by the exporters.

Illegal competition
This problem exists not only in the roots and tubers sector but also in other non-traditional export products. It's considered as the worst threat for the private initiative to invest in this sector. The situation can be defined as a play of prices, where a certain kind of advantages exist for a few companies, who have a north american identity or influence. When an analysis is made of their export policies, one can observe that prices FOB are similar for the different companies. Nevertheless within the export channel, especially at the level of "Brooker", the main importer/distributor in the US, some exporters quote their products at a value which in many cases hardly represents the costs of processing the product. This phenomenon has been detected especially at the Miami market. These privileged companies offer relatively high prices for roots and tubers in the Atlantic Zone or other parts of the country. Other companies can not compete to these prices. Farmers prefer the higher price. Actually the lack of laid down norms is the limiting factor which prohibits to give protection to companies who want to invest in the roots and tubers

sector. A situation in which illegal competition is possible is abnormal in an export sector. (Carmona,1992).

This kind of illegal competition is mentioned by two exporters I have spoken. It's a very delicate matter but both exporters were very disappointed in the way in which this development is possible. They are sure that a few companies exporting roots and tubers on large scale to the United States are embezzling the white washing of drugs capital by the trading of fake products. Roots and tubers are exported but in reality the financial transfers are used to hide the real matter. The big influence these few exporters have, makes it almost impossible for other exporters to export to the United States market on a fair base.

Limited financing possibilities

Roots and tubers are perishable products and thus risky for the banking sector which provides credit to the agro-industrials. Rates of interest are therefore high and this limits the possibilities for the exporters to make use of these credits. The lack of sufficient financing possibilities limits the export companies to keep their competitiveness and prevents the market from growing.

This situation affects the relation with the farmer as well. Exporters need a lot of working capital. Exporters working on the base of consignation, are dependent of the moment the importer pays. They sometimes experience a lag between moment of paying the farmer and moment of receiving the money from the importer. Exporters who do not have sufficient working capital can only pay the farmer after they have received payment of the importer. Working on consignation means that exporters receive a price at CIF-base. (Carmona,1992) Exporters who do not pay the farmer in time create a bad reputation. This fact is noted by some of the exporters I have interviewed, and it's one of the reasons why certain companies refuse or hesitate to work on the base of consignation. In 7.4 a more exclusive explanation is given.

Number of agro-industrials

The problem of fluctuating prices and instability of the market is partly the result of a, since 1988 , growing number of agro-exporters who don't operate in this export sector with the responsibility which it deserves and needs. Several firm-based companies stated the fact that a number of companies work with the idea of making money quickly. This has several negative influences on the whole market.

- The knowledge of these companies of the international market is very limited. They don't make use of available market information
- The way in which these companies provide their packing industry is badly organized. Especially these companies pay farmers very low prices and farmers receive money late or never.
- There is no quality awareness. The selection and handling of products is done badly. For example, products are not dried before shipment. In this way low quality products enter the international markets, and reputation of Costa Rican products is affected. This is a long term problem for other companies and it can result in a permanent decrease of exports. Export of ginger is a good example of this kind of development. In appendix 7.D an explanation of this development is given.

Contacts with foreign importers

It is stated by every exporter that the most important condition to export, is contacts with foreign exporters. Reliable importers are very difficult to find. Exporters mentioned that importers who do not pay are the worst nightmare of them.

7.1.8 origin of primary material

Packing industries of roots and tubers receive their necessary crops from different sources. Most successful companies posses private plantations, this to be assured of a certain supply. Especially in times of high demand of roots and tubers and consequently high prices at farm level, these plantations provide the exporter of cheap primary material. On the other hand, if supply at farm level exceeds demand and prices fall, it's more profitable to buy from farmers and leave plantation. As has been noticed, demand, supply and prices fluctuate considerably. This unstable situation is one of the reasons that long term relations with farmers only exist in a few exceptions.
In general exporters have informal contacts with the farmers. At the moment an exporter has a deal with an importer he sends somebody to the production area and appointments are made with several farmers. Products are selected and quantity and price are assured. Two or three days later a truck picks up the harvested product. Farmers are officially paid two or three weeks later. Bad paying exporters are known by farmers. Nevertheless they sell to them, if there is nobody else to whom they can sell.

7.1.9 the small-scale roots and tubers producer

To find a solution for the number of problems which the small farmers face in the roots and tuber sector, it's necessary to analyze the factors which determine the actual situation at the production stage.

Organizational
The most important factor in this stage is the lack of an organized structure which involves the participation of the farmer in the next stages of the commercialization channel and which permits the farmer to keep control about the supply of the product. The lack of this kind of structure permits persons who have a bit more access to markets and market information to take advantage by deceiving the small farmer, who is practically defenceless. (Carmona,1992)

price relations
Due to the big influence of the intermediary in the commercialization of the roots and tubers, the price paid to the farmer is very low and only in periods of shortage of the product, prices received by farmers increase. The processing plants are purchaser for the intermediates and profits for them are high (150 col per quintal). To resolve this situation a market information program is necessary to inform the farmer about the construction of the market and it's prices. (Carmona,1992)

Quality
The small farmer is not aware of the concept of quality of the product which affects and sometimes injures the market as well. A product of bad quality provokes rejection at the level of the processing plant or in the country of destiny. Costs of handling and selection are on account of the farmer. The farmer cultivates to sell, not with the knowledge that the product will enter export markets. And exactly these markets require a high quality product. Size, appearance and phytosanitary control are some of the conditions which determine quality. (Carmona,1992)

Technical assistance
Although there exist packets of recommended technology provided by the MAG, it's certain that a lot of farmers without any experience with producing export quality have taken up production of roots and tubers. In this way supply of roots and tubers has grown, but quality of the produce is not always satisfactory. Interviews with farmers made clear that farmers need technology more adequate to their level of production. Improving pre and post harvest handling has a lot of

influence on the output and quality of the product. More attention has to be given to this kind of technical assistance. (Carmona,1992)

Control of supply

Farmers work individually and they commercialize their products without collective strategies. An exception are the associations, who are slowly developing. Before 1989 the institutions concerned with the commercialization of roots and tubers didn't knew the commercialized supply. This situation has been improved and from 1990 information about cultivated area is collected by Censos Anuales. Together with the information about commercialized volume in and outside the country can provide the farmer with information about the possibilities to cultivate a certain product, according the demand of the product.(Carmona,1992)

Selling at credit without endorsement

The lack of capacity in handling of invoice and contracts, is a fact which imposes the farmer with responsibilities which he can't meet. In general the fact that exporters get paid CIF prices causes a delay in payment to the farmer. If these exporters make use of credit on "consignation", it's up to the importer if he will pay or not. This has occasionally caused millions of losses to the farmers. These losses are impossible to recuperate. The government nor it's institutions have found a solution or established efficient norms to control this problem.

Lack of information

This factor brings big disadvantages to technicians and farmers. It's difficult to imagine that in an export sector doesn't exist a an information program which could be used by the different levels in marketing channel. There is a lack of sufficient information about cultivated area, prices paid to farmers, international prices, commercialization channels and adequate financing help. (Carmona,1992)

Unawareness of the market

The farmers don't have sufficient knowledge about the dynamic external market and they depend on the criteria and information given by intermediaries and exporters. This fact contributes to the large variation in supply during the years.

7.2 PLANTAIN (Musa paradisiaca L.)

7.2.1 introduction

Plantain is traditionally a popular food ingredient in the national menu. Still it's consumed in Costa Rica in large quantities. As a result of the large migration of Latin American people to western markets, international demand for plantain is growing. The exportation of plantain is part of the non-traditional export program and several governmental institutes are concerned with the improvement of this sector.
In this paragraph a description is given of the product in Costa Rica, the national supply and the export marketing channel.

7.2.2 product in Costa Rica

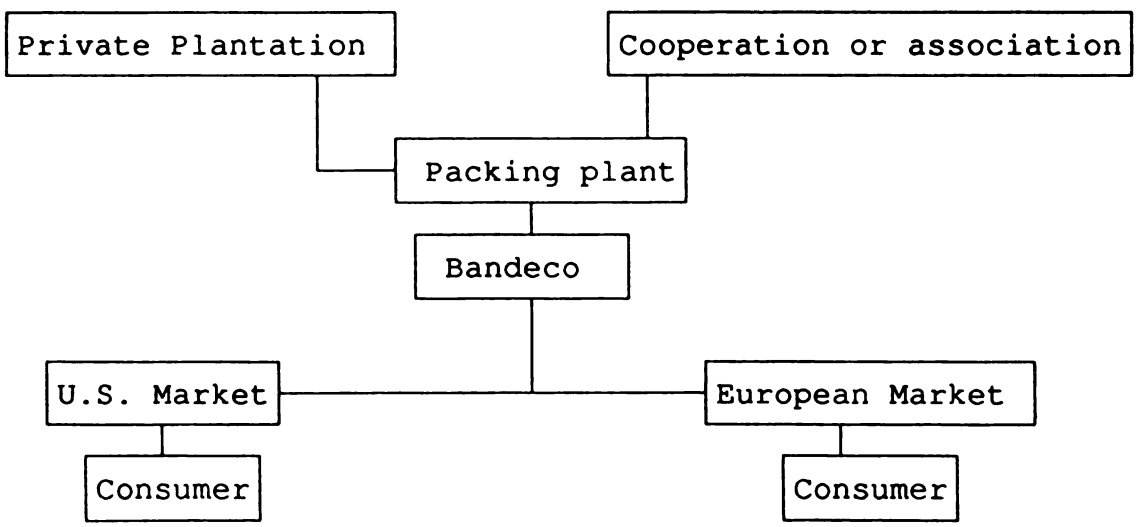
The principal varieties which are planted in Costa Rica are Curraré rosado and Curraré blanco. Plantain meant for exportation is of a different quality than plantain which is meant for national consumption. There exist a large quantity of varieties and for more detailed information I refer to Roseboom et al,1990.

The disease black sigatoga has a strong impact on the production of plantain. This disease is discovered in 1979 in Costa Rica, and if not treated well it can destroy the whole production (Flores,1991)

7.2.3 national supply of plantain

The principal production area in Costa Rica is the region Limon, which produces approximately 88 % of total production. The production can also be characterized by the high proportion of small farmers as producers. (Agromercado, 1991)

7.2.4 the export marketing channel



There is a strong distinction between the producer of plantain and the actual exporter. At production level there are in general two types of producers. The private business possesses large plantations planted with plantain. An example is Expaca of which a description is given in appendix 7.F.

The other type is the small farmer who is organized in a cooperation or association. (see appendix 7.F) The private business and the cooperation organize the packing function themselves. In the packing industry the plantain is selected, washed, and sprayed with fungicides. Then the plantain is packed in banana boxes with a minimum weight of 51,5 lb, which is equivalent to 24 kg.

The export level is strictly separated from the production level. It's dominated by Bandeco which is part of the highly integrated banana sector. Bandeco controls the total export of plantain to western markets. It's very striking that Bandeco does not own their own plantations. This is a big difference with the banana sector,in which production is totally in hands of multinational companies. In the past Bandeco had a plantation of 80 hectares. Because of bad experiences with the output level of this plantation, they closed down own production and switched to the area contracts. Several reasons can be given for this policy.

- At the plantation banana technology was used. In this way the plantain didn't receive the necessary attention, and output was low. Farmers with a small number of hectares can give sufficient attention which the plantain needs.
- Plantain is much more sensible for weather influences. A strong wind or rainfall can destroy all production.
- These facts make production risky and for Bandeco it's more profitable to delegate the production to small farmers or specialized private businesses.

In the packing industry selection takes place with specified quality requirements, laid down by Bandeco. Bandeco uses these requirements by checking six boxes of every load at shipping level.

Supply of the boxes with plantain is assured by contracts. Bandeco divides area contracts between the producers. It's said that a cooperation or private business minimal needs 30 hectares of plantain in cultivation, to be eligible for a contract with Bandeco. The producers are assured that total quantity produced by the contracted number of hectares is sold for a fixed price. This price is each year specified and laid down by Bandeco and reflects the national situation of supply and quality in Costa Rica in relation with production in other countries and demand at especially the U.S. market.

7.3 PALMHEART, PALM OF THE PEJIBAYE, (Bactris gasipaes H.B.K.)

7.3.1 introduction

This chapter describes and discusses the situation of palmheart in Costa Rica. It is divided into three parts. The first parts gives a description of the product, the national supply and the distribution of the cultivated area. In the second part a clear overview is given of the export marketing channel of palmheart in Costa Rica. In the third part the international market of palmheart is discussed. Finally some conclusions concerning the export possibilities of Costa Rica can be found in part four.

7.3.2 product in Costa Rica

Commercial production of palmheart in Costa Rica has started in the 1970's and since the 1980's it's promoted by the government as a non-traditional export crop. The introduction of this relatively new crop involves several ecological consequences. Out of ecological point of view, the introduction of a new crop needs to guaranty a sustainable development based on a technology level which doesn't exhaust the natural resources, fundamentally soil and water. According to the latest realized studies by the Technology Institute of Costa Rica (Instituto Tecnológico de Costa Rica) palmheart offers a promising alternative. (Mora Urpí,1991)

Palmheart needs a low technology input. It can adapt to a large scale of agro-ecological conditions. It is an attractive crop for small, medium and large-scale producers. In marginal zones it can surpass the economic return of traditional crops like maize and beans. (Zamora,1991) On the other hand, the product extracts just a small percentage of it's total produced biomass. Only the lowest part of the trunk is good for consumption, and the rest of the palm remains on the field after harvesting. In this way most of the biomass remains on the field and organic material and minerals prevent the soil of exhaustion. (Mora Urpí,1991)

7.3.3 national supply of palmheart

At the end of 1990 Costa Rica possesses 2.900 hectares cultivated with palmheart of the pejibaye type. (Azofeifa, pers.com). In 1992 there are no exact statistical figures about total hectare cultivated in Costa Rica, but some of my personal contacts have estimated this at 3000 to 3500 ha.

The principal zones of production in Costa Rica are located in Sarapiquí, Pococí, San Ramon, Jímenez Mora, Perez Zeledón, Corredores, Siquirres and Limón. Thanks to the National Palmheart Program (appendix 7.G) data of area sowed are available for the region Huetar North and Huetar Atlantic. Zamora, 1991, considers that 98 % of total palmheart production is cultivated in these regions. The program investigated and concluded that these two regions are offering the best soil and weather conditions for the development of this crop. The latest years production of palmheart has increased considerably. (table 7.5)

Table 7.5 Area cultivated with palmheart in hectares and number of farmers in the regions Huetar Atlantica and Huetar Norte of Costa Rica, distribution per canton or district. 1986, 1989.

region	1986	1989	nr of farmers
HUETAR NORTE			
Rio cuarto	25,4	57,4	13
TOTAL GRECIA	25,4	57,4	13
Pital	0	140,0	4
Ciudad Quesada	0	9	2
La Fortuna	0	1,5	1
TOTAL SAN CARLOS	0	150,5	7
Aguas Claras	0	186	1
TOTAL UPALA	0	186	1
TOTAL ALAJUALA	25,4	393,9	21
Puerto Viejo	0	18	3
Horquetas	322	600	59
TOTAL SARAPIQUI	322	618	62
TOTAL HEREDIA	322	618	62
TOTAL ZONA NORTE	347,4	1011,9	83
HUETAR ATLANTICA			
Guápiles	209,7	409,4	7
Jimenez	1,5	5,95	3
La Rita	4,9	35,9	6
Cariari	16,5	21,35	13
Roxana	0	90	1
TOTAL POCOCI	232,6	562,6	30
Rio Jimenez	0	383	7
Pocora	1	3	2
TOTAL GUACIMO	1	386	9
Germania	7,75	53,25	23
Bataan	2,4	3,6	1
TOTAL SIQUIRRES	10,15	56,85	24
Carrandi	2	2	-
TOTAL MATINA	2	2	-
TOTAL LIMON	245,75	1007,45	64
TOTAL ZONA ATLAN.	245,75	1007,45	64
TOTAL OF THE TWO ZONES	593,15	2019,35	147

Source: Interviews done by national palmito program in June 1989 and april 1990

7.3.4 distribution of cultivated area

In Costa Rica only a few big rural estates producing palmheart exist with a farm size of more than 100 ha. Table 7.6 shows that 3 per cent of the producers posses 70 % of the cultivated area. The remaining exploitations belong to small producers. More then 90 % of the producers posses only 17 % of the cultivated area see table 7.6. These farmers have in general several crops and for them palmheart is a complementary product. (Zamora,1990)

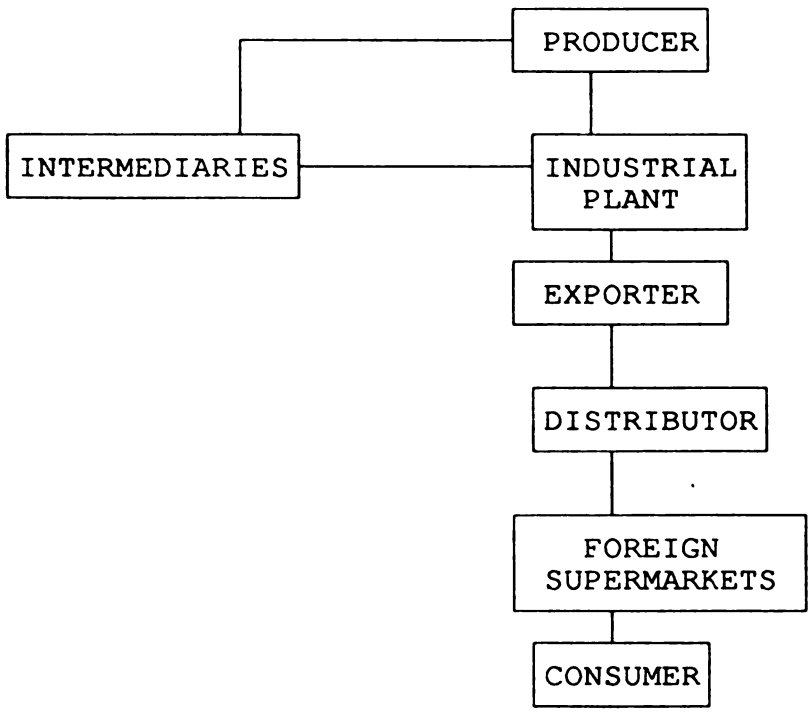
Table 7.6. Distribution of the area sowed with palmheart in the regions Huetar Norte and Huetar Atlantic according to size of the lots and number of farmers. (december 1989)

size of lot (ha)	total area (ha)	%	number of farmers	%
0,2 - 10	353,80	17,52	135	91,84
> 10 - 25	103,50	5,13	6	4,08
> 25 - 50	90,00	4,46	1	0,68
> 50 - 100	56.00	2,77	1	0,68
>100	1415,90	70,12	4	2,72
Total	2019,30	100,00	147	100,00

Source: Interviews done by the P.N.P. in june 1989 and april 1990.

7.3.5 export marketing channel

Figure 7.3



Source: Dr. Jorge Mora Urpí, UCR.

The producer in this export marketing channel is a small-scale farmer who delivers palmheart to intermediaries or farmer organizations. The exporting companies have their own industrial plants and private plantations. The private plantations are fast growing in size. Technology level at these plantations can be organized very well, in this way a constant high quality product is cultivated. For these exporters the export marketing channel is highly efficient organized.

7.3.6 the exporters of palmheart

Palmheart is a product which can be commercialized fresh or processed. The conservation of fresh palmheart is difficult because this product is sensible for decay. The agro-industrial process represents actually a good alternative for the conservation and exportation of palmheart.
Quality standards are kept high to be assured of a good reputation in the international market (appendix 6.C).

During the last decade a considerable number of agro-industrials processing palmheart are established in Costa Rica. Different levels of technology are used in the process. New ways of processing palmheart in soups or chips are developed. The small industries working on the national markets are less developed than the big industries producing
export quality. In appendix 7.H, follows a list of agro-industrials of importance for the Atlantic Zone.

The processing of palmheart needs to fulfil certain conditions, concerning heating up, sanitary, and tinning of the palmheart. Costs of this process are high, and this is a reason for the fact that only relatively large-scale industries exist. Small-scale exporters have efficiency problems.

Economies of scale determine the need for large-scale industries.

Ruiz, (1992) has done an investigation in Costa Rica on the industrial companies. Approximately 90 % of the Costa Rican companies which main activity is the industrialization of palmheart was interviewed. 38 % of the industrial companies sell at the national market, 53.8 % sell at international markets and 23 % operate at national and international markets. The national market is relatively small, but has potential to develop. (Aguilar,1991)

In virtue of the previous and the big promotion which this crop has received politically, it's plausible that the industrial companies have emphasized the development of the international markets and thereby neglecting the national possibilities. (Ruiz,1992)

Only 23 % of the agro-industries of palmheart are situated in rural regions, outside the Valle Central. This includes several difficulties for the processor as well as the producer. The harvested palmheart has to be transported from the rural areas to the processing plant as quickly as possible to decrease the possibility of decay. Costs of transport are high and these are often on expense of the producer.

According to Ruiz, (personal com), industrial plants are working on half it's capacity. More supply of palmheart will increase efficiency in this sector. There is a strong competition between the large-scale industries to obtain palmheart. Production of more palmheart is in view of the positive development of international markets recommended.

7.3.7 origin of primary material

Processing industries receive their primary material from different sources. Large industries like Conservas del Campo have their own plantations. In Costa Rica are four large industries which posses more than 60 hectares of palmheart (Ruiz, pers com). In this way their supply is for a large part assured. In addition to this quantity, processing industries buy from small farmers as well. This can be directly, with regular contacts with farmers, or indirect, with negotiations with intermediaries or farmer associations

7.3.8 the small-scale palmheart producers

Ruiz, (1992), has interviewed 49 producers of which 34,8 % are from the Siquirres district, 36,9 % of the Grecia district, 15,2 % of the Sarapiquí district, 10,9 of the San Carlos district and 2,2 % of the Guácimo district. Siquirres, Sarapiquí and Guácimo are part of the Atlantic Zone. So 52,2 % of the interviewed farmers belong to the Atlantic Zone and this investigation can give some significant information about the commercialization of palmheart in the Atlantic Zone.

Table 7.7. Size of the farm and area sowed with palmheart de pejibaye of the interviewed farmers, 1992. n = 49	
	Percentage
Farm size in hectares	
< 10 ha.	68,0
10 - 50 ha.	17,0
> 50 ha.	15,0
Acreage cultivated with palmheart	
1 - 5 ha.	81,6
5 - 10 ha.	10,2
> 10 ha.	8,2

Source: Farmers interviewed by Ruiz, 1992.

In table 7.7 can be seen that the majority of these farmers (68,0) posses less than 10 ha, and 81,6 % sow only between 1 and 5 ha. palmheart. It's clear that a significant number is small-scale farmer.

Ruiz,(1992) asked these farmers which marketing outlets they use. Table 7.8 shows the importance of the different types of outlets.

Table 7.8 Marketing outlets used by the interviewed farmers, with palmheart, 1992. n = 49	
Marketing outlet	percentage
Farmer association	24,5
Sold per piece at farm	22,4
Directly to industrial plant	16,3
Harvested by intermediate	10,2
Farmers market	8,2
Not sold, or not yet sold	18,4

Source: Farmers interviewed by Ruiz, 1992

The association of farmers represents an important commercialization possibility for the farmers. Especially the small-scale farmers benefit from the fact associations act like a kind of intermediary between the farmer and the processing industry. In this way the farmer receives a higher price and is less dependent of intermediaries. The agro-industries require that farmers offer their supply together, in this way transport to the processing plant is accelerated. One of the biggest problems is the organizational structure of these farmer associations. In Appendix 7.I, an survey is given of several associations active in the Atlantic Zone and there problems.

22,4 % of the farmers harvest the palmheart and sells it to e.g. an intermediate or someone who negotiates for an industrial plant. The price he receives is considerable higher if he sells the palmheart directly at the industrial plant. Lack of transport facilities is the difficulty of this option.

Some of the intermediates organize labour force who harvest the palmheart without interference of the farmer. The farmer receives a price per piece which is very low. It possible that only the farmers who have income outside the farm, and don't have time to harvest themselves make use of this option. Only 10,2 % of the farmers make use of this possibility.

Prices at farmer markets (feria del agricultor) are best. The farmer sells officially directly to the consumer, so margin of intermediary are excluded. Nevertheless there exists a high intermediary *influence* at these markets. Demand at farmer-markets is however limited.

It clear that prices received by farmers differ a lot. Nevertheless Ruiz, 1992, has asked these farmers the average price received in the last few years. (table 7.9)

Table 7.9 Average price per piece received by the farmer during the last three years, n = 49, 1992

Year	Colones per piece	% Variation during that year, between farmers
1990	25,50	
1991	27,16	6,11
1992	32,68	16,89

Source: farmers of palmheart, Ruiz, 1992

There's no inflation index of the cost of living known, so only nominal prices are given. Prices increased if we look at table 7.9. Ruiz,(1992) explained this by the large demand of the processing plants. Although this table gives an indication of the price development, it's not very realistic because of the big influence of the kind of marketing outlet on the price level.

The price paid by the processing plants should reflect supply and demand. These processing plants have a good price information system and are acquainted with available supply in the region. The situation of the palmheart sector can be described as a oligopolistic market. A lot of suppliers and a few buyers. Another fact is the growing selfsuppling capacity of these buyers. In reality the processing industries determine the price which is partly a reflection of demand and supply of that moment. In 1991 they paid 32 colones, In may 1992 this was 41 col and in august 1992 this as 20 colones. The reason of the high price in may 1992 has been the low supply season and an unpredictable high demand. It's dry in February, March, April and May , and there is not much palmheart harvested. The high prices paid in the past stimulated the sowing of palmheart and is resulting in an oversupply in certain periods. Problem is the lack of good market information at farm level.

7.4 CONCLUSIONS

7.4.1 roots and tubers

There operate about forty exporters in the Atlantic Zone, of which some of them operate as efficient as possible. They try to keep up good relations in buying as well as selling markets. They search for market information and offer a quality product. On the other hand there exist in the Atlantic Zone exporters who are indifferent to the consequences their actions have. These exporters lack sufficient knowledge about offering a quality product. Their main concern is making money in a fast way.

Exporters often have their own producing area. In this way they are assured of a certain amount of produce. Nevertheless they will always need the produce of the small-scale farmer. It's not profitable to keep all production in their own hands. The cobweb production cycle in this sector causes fluctuating prices. In times of oversupply it is more profitable to buy from small-scale farmers.

The produce of small-scale farmers reaches the exporter directly, at the port of the packing industry, or the exporters fetches the produce at farm gate. Exporters receive indirectly produce from intermediaries and sometimes farmer organizations. The price the farmer receive depend on several factors, in times of oversupply it is low. it depends on the type of ex[porter, some of the exporters pay a price which is always a bit above the market price, in this way they keep up a good relation with the farmer. Furthermore, it depends of the type of outlet of the farmer.

Exporters hesitate to buy from farmer organizations. They state that these associations are not enough organized to become a real trade partner for the exporter. It is true that farmer organization still confront a lot of problems, but on the other hand, a strong farmer organization is a threat for the exporter, who prefers to buy from small-scale farmers who are ignorant of market prices. The farmer organization could play a more powerful role in the future.

At the selling market exporters do not have a powerful position. It is difficult to get reliable contacts with foreign exporters and competition in this sector increased considerably in the last years. The low entry barrier in this sector, and the high profit margins in the past attracted a number of exporters who thought it is easy to operate in this market. If products of bad quality reaches United States markets, not only the exporter is duped, because he does not receive his money, but also the small-scale farmer. The result of these actions a worsening a the good reputation Costa Rica has in international markets.

7.4.2 plantain

The marketing channel of plantain is dominated by Bandeco. She is the only real exporter in Costa Rica. This creates a situation far from free market competition. Bandeco exactly determines how many hectares of plantain she wants to export.

The fact that production of plantain needs a special maintenance explains the fact that production is in hands of small-scale farmers. Bandeco organizes contracts with farmers who have more than 30 hectares or with cooperatives. Bandeco organizes as well the technological necessities. Price is determined by Bandeco, who operates in the world market. At the moment plantain can not be cultivated in large plantations. In the future new developments in the cultivation of plantain will make it possible to cultivate plantain at large scale. This is a threat for the small-scale farmers.

7.4.3 palmheart

The export marketing channel of palmheart is a relatively new one, and still developing.
Palmheart exporters need a lot of capital to operate in this market. The processing of palmheart needs a high technology level. For this reason there exist in Costa Rica about fifteen exporters, of which only three are efficient. These exporters try to cultivate all the necessary palmheart at their private plantations, in this way quality control and transport to the processing industry can be arranged as efficient as possible.

The production of palmheart by the small farmers is stimulated by the government with cheap credits. Their produce is bought by intermediaries and sold fresh at national markets or to processing industries who export.

8. MARKETING PLAN FOR THE SMALL-SCALE FARMER IN THE ATLANTIC ZONE

8.1 INTRODUCTION

The small farmer in the Atlantic Zone owns small plots of land and cultivates several complementary products. Most main crops are:
- roots and tubers
- palmheart
- plantain
- hot chili pepper
- papaya
- pineapple

These products are used for home consumption, sold to intermediates, sold at "ferias de agricultor", or directly sold to exporters. The IDA developed several settlement schemes on former "haciendas". After twelve years the farmer acquires property title of the plot and he can do whatever he wants with this land. The strong entrance of banana plantations in this region has an important impact on the farming system.

The farm is the producing unit with the farmer as the decision making unit.

8.2 EXTERNAL ANALYSIS

The external factors are divided in an environmental analysis and a market analysis.

8.2.1 environmental analysis

Economic trends and cost structure
Transport costs are very high, especially in the rural areas like the Atlantic Zone. In fact, costs from farmer to packing or processing industry needs to be taken into account. Farmers do not have sufficient means to posses their own transport facility. The only possibility to produce and sell export-crops is to sell these to an intermediary. In this way the price received by the farmer is:
price FOB at world markets
minus transportation from farmer to packing or processing industry
minus profit margin intermediary
minus packing or processing costs
minus transportation from packing or processing industry to harbour of shipping
minus profit margin exporter

In the case that a farmer has a contract with an exporter, the price he receives is undoubtedly higher because there is at least one influence less.

Technological trends
Small farmers make in general use of a low technology level. Output of their plot could be much higher if production technic were more intensive. Using fertilizer may improve quantity and quality of the product, in this way a higher price for the produce can be received. Another obstruction for an optimal production is the fact that many farmers work at banana plantations and in this way neglect their own plot. Several institutions, mainly the MAG provide technical programs to improve the knowledge of the farmers about the crops they produce.

Political/juridical
As has been said in the summary, the banana plantations create a high labour and land demand. Especially the farmers owing a plot in an IDA settlement have, after the obliged twelve years of cultivation, the opportunity to sell the plots. Although this offers the farmer considerable financial support, it is not a long term solution for the development of a strong agricultural sector in the Atlantic Zone.

8.2.2. market analysis

The small farmer can include several crops in his cultivation plan. Some of these are especially for home consumption, others for the national or international market. Characteristics of these marketing channels differ. Quality requirements are much higher at the international markets. If a small farmer produces with the intention that his products finally will reach export markets, he has to take into account these quality requirements. In some cases a special variety is required (pineapple), or there are strict methods to spray fungicides (plantain).

8.2.3 demand of agricultural production at farm level

The small-scale farmer is confronted with a cob-web supply function for many of his crops.

* roots and tubers
A very instable demand and supply, resulting in a cobb-web supply cycle. Farmers suffer from a lack of market information. They run behind the market. Farmers receive a price based on demand and supply. The fact that farmers change to crops which pay well contributes to the large volumes next year, resulting in low prices. Producing on contract-base could be a solution for this problem, but as long as the contracts don't include a fixed price determined before the harvest, no success in a stable demand and price trend can be expected.

* palmheart
Demand of palmheart for the small-scale farmer is determined by the processors, who exactly know how much is necessary. Demand is laid down by the clients in foreign countries. Supply is adjusted to this quantity. The fact that small farmers do not offer large quantities, obliged them to cooperate and offer the quantities together with other producers. Only in this way the exporters are willing to buy from the small farmers. Quality of the palm hearth is checked and price is determined. Especially in times of high international demand the exporters can fall back on the palmheart produced by the small farmers beside their own plantations. The relatively high demand of palmheart in the past and the institutional promotion of palmheart as a high yield non-traditional export crop resulted in a growing number of small farmers cultivating palmheart. Another factor which influences the demand of palmheart is the extension of palmheart plantations. The processors are assured of a larger volume and do not have to depend on the production of the small farmers.

* plantain
Export of plantain is dominated by Bandeco. Farmers have no influence in the exported quantity or international price. The price is fixed in a number of hectares contracts. A minimum of thirty hectares is necessary to get a contract. Small-scale farmers offer their produce together.

* hot chili pepper
Farmers have contracts with the processor\exporter. Price is determined before harvesting. In this way farmer is assured all his yield can be sold for a certain price and the exporter is assured of supply. Demand to farmers is fixed in contracts, and a farmer has not much influence to increase or decrease quantities covered by of these contracts. (pers. Agriquimsa)

* papaya
Papayas cultivated by small farmers in the Atlantic Zone are in general destined for national markets. In fact demand for international markets is negligible. A cooperative in Guácimo has two contracts with intermediaries who sell at the national market. With the help of a Canadian development organization a project is developed for conserved papaya. A marketing study for these conserved papayas is carried out by Cinde, as well financed by the Canadian organization.

* pineapple
Pineapples cultivated in the Atlantic Zone are mainly destined for the national market. For more detailed information about national demand I refer to Van Logtestijn, 1993. Export of pineapple is dominated by Pindeco who possesses large pineapple plantations in San Carlos. Nevertheless, it is said that some farmers cultivate the export variety and sell these to intermediaries who have a contract with Pindeco. (pers. Den Daas)

8.2.4 size of the market

The fact that the size of international markets for a certain product increases doesn't mean that sales possibilities for small farmers increase as well. In general, small-scale farmers depend strongly on the processors\exporters, who determine in many cases, price and quantity.

* roots and tubers
Although exporters, especially the large ones, posses considerable plantations, small farmers still provide large quantities destined for export markets. Low international prices have resulted in the increase of buying directly from small farmers. Exporters found it more profitable to buy directly from small farmers. The production on their plantations is declining. In spite of the price and quantity difficulties in this sector it still represents the most important sector for small farmers to export, if only quantity is taken into account.

* palmheart
Small farmers are confronting a sector which is increasingly determined by large processors/ producers. Small farmers fulfil a rest-function concerning supply of palmheart. As long as they can not process and export their own products, this depending relationship continues to exist.

* plantain
Size of this market is determined by Bandeco.

* hot chili pepper
Processor/exporters determine the quantity they need, and have influence in the quantity produced by the small farmers. The size of this market is growing. This will result in more farmer contracts.

* papaya
Size of this market is small and negligible.

* pineapple
Size of this market is very large, but the small farmers take only a very small part of total quantity exported. No change in this situation is expected.

8.2.5 market segmentation possibilities

The only segmentation possibility the small farmer in the Atlantic Zone has, is the choice for exportable crops or crops for the national market. The farmer is free to choose which products he wants to cultivate. The preference of the farmer to cultivate export crops can be attributed to the higher prices paid as a result of a consequently higher quality level than products for the national market.

8.2.6 competition

The large quantity of small-scale producers in the Atlantic Zone, and the relatively few buyers of the crops creates a highly competitive situation for the farmers. The crops have a homogeneous character and the seller is a price taker. There is free entrance in the market. Only the fact that producers do not have complete market information restrains this situation of perfect competition. In the past farmers did not cooperate to strengthen their position. Nevertheless initiatives are developed to improve this situation.

8.2.7 distribution structure

Distribution channels are not very well developed in this region. Roads beside the main roads are in bad condition, and this increases transport costs. The market channel for farmers of roots and tubers, palmheart and plantain are already given in chapter seven.

8.3 INTERNAL ANALYSIS

8.3.1 objectives of the small-scale farmer

The small farmers in the Atlantic Zone need to support their families. The cultivation of their plots has to provide the family a living. The farmer will search for crops which will give the best output in value per hectare. Beside these "cash crops", he cultivates as well some fruits and vegetables for home consumption. The choice for a certain crop is dependent on some factors under which, the possibilities of the soil, the possibilities to obtain credit, the possibilities to be sure of a market outlet, eg in the form of a product contract with a processor or exporter, or a "carnet" to sell at the "feria del agricultor".

8.3.2 financial means

In general a small farmer does not have substantial means to finance large investments. He will only use the most necessary inputs. It's difficult to obtain credits and the paying back of these credits is even more difficult. (Carmona,1991)

8.3.3 market position and market potential

The small farmers play traditionally an important role in the supply of non-traditional export crops. In chapter six can be read that for the roots and tubers, palmheart and plantain sector new developments at export level influence the market position of the farmers. The situation differs per product, but in general the position of the farmer is weak, as a result of the great dependency of the farmer to the buyer of the product, the lack of sufficient market information, and the difficulties to enter higher levels in the marketing channel.

The position and potentials of the market for the small farmer is dependent on the situation of the exporter, who again is dependent on the world market situation and other variables.
In chapter nine the position and potential of the exporter are given. The position and potential of the farmer can be derived from that chapter.

8.3.4 causes of the current position

The causes of the weak position of the small farmers in the Atlantic Zone are historical as well as economical.

Cultivation in the Atlantic Zone is relatively young. In 50 years time the number of people living in the Atlantic Zone increased rapidly. The colonization, the development of settlement schemes and the opening up of the zone contributed to this increase. Together with the increase in people, the cultivation of crops arose. Statistics show this development (chapter seven). Production of several crops increased and the first level within the market channel is reached. Together with this raise in production and market supply, the next stages within the marketing channel were needed.

At the moment there is a lack of a well developed marketing channel. The intermediaries fulfil a powerful link between the producer and the final market, nationally as well as internationally. The development of marketing channels did not have enough time to adapt to the fast increasing production. The weak market position of the individual farmers is a result of the slow development of the marketing channels which lagged behind the production level of the Atlantic Zone.

Before 1986 the government stimulated the cultivation of basic grains. This policy could not be continued after the intervention of the IMF, who advised a Structural Adjustment Program. Part of this program was the abolishment of subsidies on basic grains. Instead of this policy, the promotion of non-traditional export products was activated.

These decisions had large consequences for the Atlantic Zone. Especially in the region Guácimo large areas were cultivated with maize. The small farmers were assured of a fixed price and the marketing function was accomplished by the CNP. This marketing board arranged transport, processing and storage of the basic grains. As soon as farmers needed to change to the recommended non-traditional export-crops, marketing problems arose.

The lack of well-developed marketing channels is resulted from the changes invoked by the implementation of the Structural Adjustment Program.

Small farmers always operated individually. Initiatives of small-scale farmers to offer together crops in large quantities have often failed. Farmer organizations are developing slowly, because the necessary conditions are not always fulfilled. Most important condition is the fact that farmers need to be convinced of the advantages of cooperation. A possible reason for this fear to cooperate is again the lack of a historical background in the region. For more detailed information concerning farmer organizations I refer to appendices 7.I and 8.A.

Farmer organizations are not yet strong enough to overcome the difficulties, which they meet when they operate in higher levels of the marketing channel.

As has been said before, small farmers do not posses sufficient financial means. A commercial attitude is very difficult to keep up if investments are difficult to finance.

The hard way of making money, has made a lot of farmers disappointed and declines their will to survive.

8.3.5 analysis of the marketing policy

It's difficult to give a statement about the marketing policy of the small farmers in the Atlantic Zone. It depends on the attitude of the farmer, the fertility of the soil which determines which crops can be cultivated with success, the distance to "ferias de agricultor" or processing and packing industries, and the type of contacts with intermediaries. Most farmers do not pursue a deliberated marketing policy.

The dependency of the farmer to the different marketing outlets is the most important reason for the lack of a clear marketing policy.

8.4 OPPORTUNITY ANALYSIS

The opportunities and threats the small farmer confronts, refer to external factors that can affect the future of the farm. Strengths and weaknesses are internal factors, in contrast with opportunities and threats. The strengths point to certain strategies the farmer might be successful in using, while the weaknesses point to certain things the farmer needs to correct. (Kotler, 1988)

Some points have been mentioned before, but this opportunity analysis is meant to give an overview of all the influences the small farmer confronts.

8.4.1 strengths

- Farmers posses only small plots of land, special attention for crops cultivated is feasible.
- A typical characteristic of the small farm household is the fact that family members can contribute to the farm work in times of high labour need.

8.4.2 weaknesses

- The small farmer is depending on higher levels in the marketing channel. He does not has a strong negotiation power.
- He does not receive sufficient market information.
- His choice for a certain crop is determined by the actual market price. Large groups of farmers act the same, in this way an oversupply in the next period is to be expected. A cob web supply cycle is the result of this acting.

8.4.3 opportunities

- The national institutions are aware of the problem concerning the commercialization of non-traditional crops in the Atlantic Zone. Farmers can take advantage of the projects started up.
- The IDA and the banana plantations provide the Atlantic Zone of a quite good road-infrastructure. The small farmer can take advantage of this fact, if he is in possession of a transport facility.

8.4.4 threats

- The processors\exporters possess in an increasing degree their own plantations, in this way assuring their supply. The market for small-scale farmers is declining because of this threat.
- The development of world market prices is not sufficiently reflected in prices paid to farmers. (Vinicio,1991)
- The banana plantations demand a high labour force. Opportunity costs of labour are raising and this distracts labour from the small-scale farmers sector.
- The banana plantations are expanding their plantations. This influences the opportunity costs of land.

8.5 OBJECTIVES AND ALTERNATIVE STRATEGIES

In fact there are organizational and non- organizational problems which need improvement.

<u>organizational</u>

* Cooperation of the small farmers to create a higher countervailing power with intermediaries. (horizontal)
* Vertical integration in the marketing channel, processing and\exporting.

<u>non-organizational</u>

* An anti-cyclical policy concerning choice of crop, sowing and harvesting.

The importance and possibilities to improve these three main differ per product.

8.6 RECOMMENDATIONS FOR FURTHER RESEARCH

The perfect marketing strategy for the small-scale farmer can not be given. The different alternatives need to be tested on their financial feasibility. Important conditions for direct exporting have to be met.There a need for good contacts in foreign countries, if farmer organizations are considering direct export. Another condition is the organizational strength of the farmer organization. They have to be capable to offer a regular supply and quality of the product.

More research and action is needed to improve the situation of the small-scale farmer in the Atlantic Zone. In paragraph 8.3.4 some conclusions or hypotheses were stated. These are:

* The weak position of the small farmers is a result of the slow development of the marketing channels which lagged behind the production level of the Atlantic Zone.

* The lack of developments in marketing channels is undoubtedly related to the implementation of the Structural Adjustment Program.

* Farmer organizations are not yet strong enough to overcome the difficulties, which they meet acting in higher levels of the marketing channel.

* The hard way of making money, has made a lot of farmers disappointed and declines their will to survive.

Institutions or governments should take into account these conclusions when projects for improvement of the marketing channel are developed.

9. EXPORT MARKETING PLAN FOR EXPORTERS IN THE ATLANTIC ZONE OF COSTA RICA

9.1 INTRODUCTION

In this chapter a marketing plan, already described in paragraph 4.4 is given. At the end a personal evaluation is written, in which some pronouncements about future opportunities are stated.

Unprocessed products

The exporters in the Atlantic Zone export fresh and processed products. Most important fresh products for export are:

- roots and tubers
- plantain
- papaya
- hot chile pepper

Characteristics are the simple processing methods for fresh products and the possibility of decay if not transported quickly. The packing of these products takes place in simple packing industries. The only necessities of such plant are a roof, a big washing basin, and a small office. In the case of the hot chile pulp, a pulverizer is also a necessity. The packing plants of fresh products are in general situated close to the producing area, in this case the Atlantic Zone, with exception of the hot chile pulp.

Processed products

Processed products need a higher technology and investment level. Most important processed products are:
- canned palmheart
- papaya juice
- hot chile sauce

These processing plants need to fulfil high sanitary conditions. The real processing part needs to be very clean. The necessities are large cooking basins, large washing basins, and technical instruments like tin-machines or glassware, machines. The processing plants are in general situated in the "Valle Central", close to San José.

More detailed information about the processing methods for agricultural products can be found in appendix 9A.

Exporters offer several products in their product portfolio.
They adapt to the wishes of the importers. Exporters of fresh products do not export processed products and vice versa, because of the large difference in technology, capital investment and knowledge required.

The owners of exporting companies are a of different origin, Costa Ricans, Mexicans, Puerto Ricans and North Americans. They often had already some experience or worked in relating areas. Most of the good functioning companies had already contacts with importers before starting the export business.

9.2 EXTERNAL MARKETING ANALYSIS

A description is given of some external and internal factors.
The external factors which determine the marketing situation, are divided in an environmental analysis and a market analysis (Kotler,1991).

9.2.1 environmental analysis

Economical trends:
a. Incentives to promote the export of non-traditional export products.
Some of the subsidies exporters of non-traditional products receive:

- Reduction of 100 % of the tax on net profit, earned in the period of exportation to third counties.
- Reduction on 50 % of the amount paid on the stock exchange market, for buying rudiments in limited companies who are exporting 100 % of their production.
- Primary materials and inputs, which are not produced in Costa Rica are exempted of all kind of import taxes

b. The export contract
The export contract created an instrument to coordinate the advantages and facilitated the benefits, which several laws award to the exporting companies.

- Simplification of the procedures and formalities
- Tax reduction
- "Certificados de Abono Tributario" (CAT), a tributary guarantee based on the value of exported non-traditional export products. The level of the CAT fluctuates between the 15 and 30 % of the value F.O.B. Different reforms have changed the outcome of this facility. In december 1992 the subsidies were 11 % if products were exported to the United States, and 14 % if exported to the European Community.

All fresh and processed products which I have mentioned receive CAT, except plantain producers, because they are exported indirectly. Bandeco receives this subsidy.
The government restricts the level and conditions, for exporters to become eligible for this subsidy. The last years expenditures have risen considerably, while non-traditional exports not have risen in the same extend. In 'La Republica' of third of December,1992, the abolition of the CAT subsidy was announced. Main reason is the fact that the costs of this subsidy are increasing at a faster rate than the increase in non-traditional exports.

General idea of exporters in the roots and tubers sector is the low price level of roots and tubers. The development of the roots and tubers economic trend is described in chapter 6 and 7.

Technological trends:

The technology level of processing is defined as the extend in which a product is changed. Methods of packing fresh products differ from technology-level of processed products. There are no major technological changes to be expected in the export of fresh products. Some exporters produce already cut and frozen pieces of e.g. roots and tubers or pineapple, packed in plastic bags. However, costs of this operation are considerable. Especially the freezer has high investment costs and risks. In times of a breakdown of the electricity temporary measures must be taken.
The export of highly processed products like palmheart is under daily supervision. Palmheart pieces are inspected during every stage within the processing process. Quality, thickness and

hygiene is inspected in a laboratory. Improvements in the processing and handling of palmheart are constantly made, if possible.

Political/Juridical:

a. International trade barriers
An important aspect of exporting to foreign countries concerns the laws and regulations concerning fruit and vegetables. Characteristics like "outside " quality aspects (quality classes, varieties, quantities, marking) and "inside" quality aspect (pesticides and phytosanitary regulations) have been regulated.

Both the inside as the outside quality aspects will in many cases be governed by laws and regulations of countries or international organizations. Knowledge of these regulations is absolutely vital to anyone who wants to export. Quality aspects therefore can pose a serious barrier to trade.

* pesticides in Europe
Pesticides are very unpopular by the European consumer. Governments draw up lists containing maximum residue levels for as much pesticides as possible and on preferably every product on which the pesticide is used. If at the import- or at the wholesale-level a product is found with a residue exceeding the maximum level, the importer has to pay a fine and the product is taken off the market.
Lists containing maximum residue levels are drawn up by:
- FAO ("Codex Alimentarius") of the United Nations;
- Commission of the European Communities;
- Individual member states

* phyto-sanitary regulations in the EC
Phyto-sanitary rules with plant diseases. These regulations are made up to implement a free circulation of goods like fruit and vegetables throughout the EC in such a way that no plant diseases are spread in the member states. The legislative situation is more or less the same as that with pesticides. (Van Dijk, 1991)

b. governmental, institutions concerning exporters.
There are several institutions established to promote and improve the export possibilities. Exporters can take advantage of the services they offer.

Institutions like Cinde and Cenpro are concerned with promotional activities to increase export. These are described in appendix 8B.

Some critical notes about Cinde. According to the exporting companies I have visited:
- The documentation centre offers obsolete information.
- Contacts with US importers provided by Cinde appeared to be bad.

The general opinion of exporting companies is that Cinde does not support them well.

The information provided by Cenpro is used by some of the exporters I have visited. Documentation, visiting of organized seminars, and reading of publications is mentioned. The same critical notes about Cinde can be accorded to Cenpro.

The exporters which I have visited can be divided into two groups. The ones who never use any formal market information. They do not develop new markets and do not have contact with other exporters. The other group does make use of market information provided by Cinde or Cenpro. They are critical of the information provided by these institutions.

Other institutions like Inter-American Institute for Cooperation on Agriculture (IICA), and Facultad Latinoámericana de Ciencias Sociales (Flacso) do research on the agricultural sector. Nevertheless, exporters do not make use of these investigations. IICA is a regional research centre on agriculture. They investigate structural questions about agricultural problems in several countries. Flacso operates as well at a level which is not of direct interest for the exporter.

Cost structure:

The export price elements are shown in figure 9.1. An exporter is not confronted with all these price elements. Nevertheless a clear overview is given of all possible costs an exporter has to calculate in the price he minimally has to receive from the buyer. An important difference in the height of the price he receives is the level of payment. The difference between F.O.B. conditions and C.I.F conditions will be made clear in the market analysis.

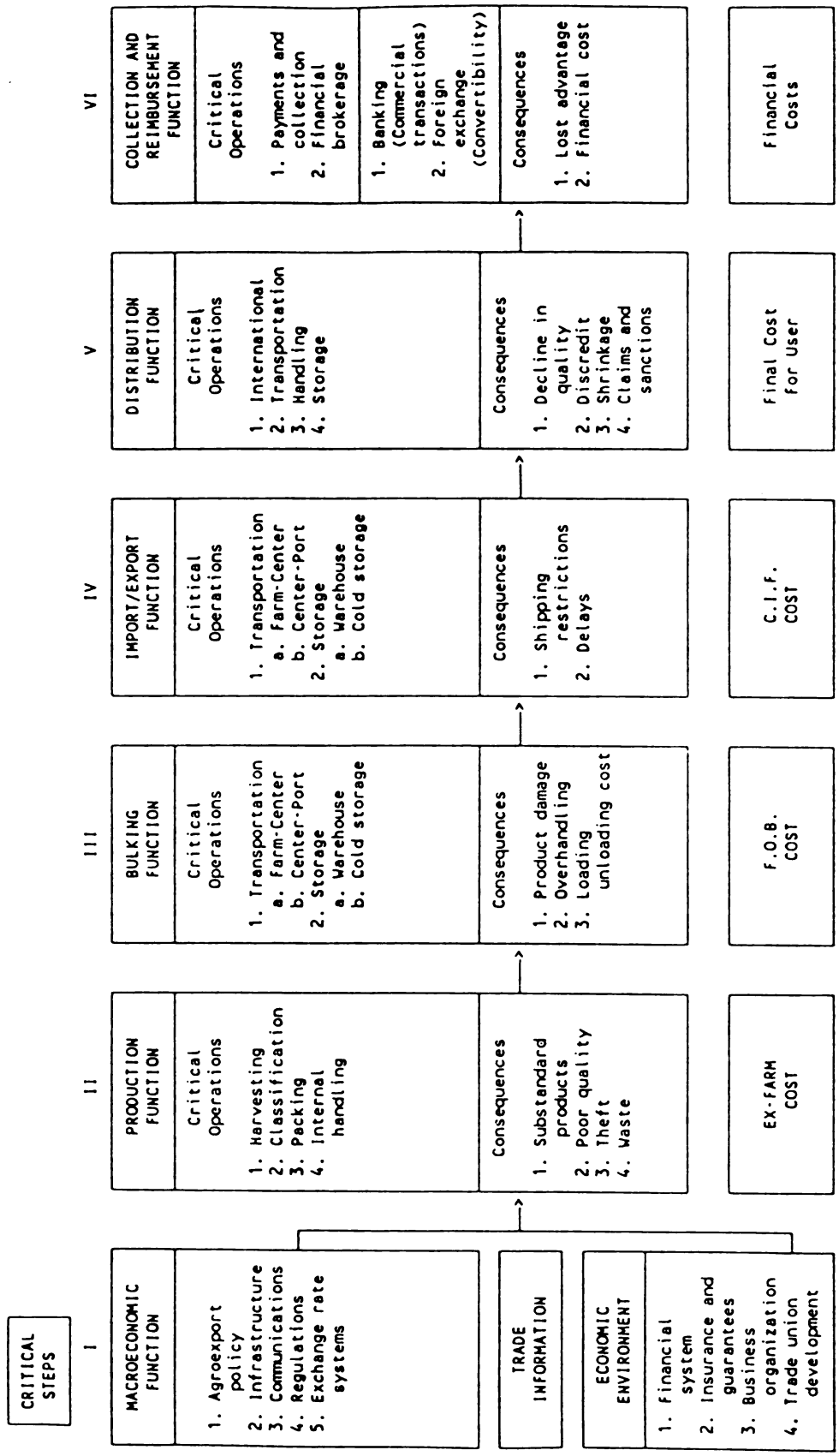
Social Circumstances:

Exporters in Costa Rica do have to take into account some restrictions concerning labour force. There are official regulations concerning minimum wages and maximum time of working in a day. Costa Rica is known about it's good social system, resulting in high labour costs for the exporting companies, in comparison to other Central American countries.

9.2.2 market analysis

The exporter operates in the marketing channel and is responsible for several marketing functions. In figure 9.2 an overview is given of these functions. The importance of each function differs per product. Costs of each function are not known. For this reason no financial pronouncements can be made.

Figure 9.2



Source: Rodolfo Quiros, 1989

the production function of exporters:

The production unit is the basis of the economic process. The sequence of different operations culminates with the availability of agricultural goods.

* harvesting or extraction

This function is mostly fulfilled by the small farmer. Once the production is completed, goods begin to flow towards the market. Time of harvesting determines for a great deal the final quality, and price of the products.

This function can be influenced by exporters in the Atlantic Zone. Exporters can have total control if they posses their own production plantations. Another way to be assured of a certain quality is to lay down requirements in contracts with farmers. Exporters weigh the costs of several alternatives against each other.

* grading

This operation can be performed manually, mechanically or electronically, depending on volume, type of product and quality required.

The grading and selecting in the Atlantic Zone is done by hand. It takes place in the processing or packing plant.

* Packaging

Market requirements include those specifications related to packaging. Cost and availability of materials for appropriate implementation of this activity will eventually define the access to a given market.

In general, products need to undergo some kind of processing, or at least need to be cleaned, and packed. Especially highly perishable goods have to undergo a process to protect them from decay before they reach the consumer in international markets.

* Internal handling

In each one of the critical steps already discussed, handling is involved. Efficiency and coordination of such handling will contribute to delivery of a homogenous standard quality. It should be emphasized that some external factors can influence quality.

Handling of the products cultivated in the Atlantic Zone is not always done efficiently. Mistakes are often made in the part were the products have to picked up from the farm gate. If there is no quick handling after the harvest products can be damaged so severely, that further marketing of this product into the marketing channel is no longer profitable.

storage function:

Because agricultural production centres are, in most cases, scattered, activities to concentrate production must be well coordinated. Any mishandling during this stage, due to deficiencies in the critical operation will increase product costs. By this stage of the process, considerable added value has been incorporated into the product, and losses therefore are proportionally higher. Undesirable defects in this stage generally detract from the FOB cost of farm produce. Too often, it is these processes that prevent products from succeeding on the market. The critical operations included in this function are:

* Transportation

The ways and means by which produce is taken to the storage centre and subsequently to the port is, under any conditions, a costly operation that must be performed with great care to preserve product quality.

Transportation of fresh products in the Atlantic Zone is done by pick-ups or small trucks. Transportation of packed fresh products from the packing plant to the harbour is done by

large cooled containers. The critical part is the transportation from farm gate to the packing industry.

Transportation of products to processing plant is done by intermediaries in trucks or pick-ups, or by large trucks in possession of the processing plant. Especially palmheart is sensible for decay. Quick transportation is of the utmost importance. The fact that a lot of processing plants are situated in the "Valle Central" makes it difficult for the farmer to take their products to the processing plant. The larger the distance to the processing plant the larger the change of decay. Even if processing industries or packing plants are located in the Atlantic Zone, it's difficult for the farmer to overcome this distance. In the case of palmheart the transportation factor plays a major role in the cost determination. One large processing industry is planning a plant in the Atlantic Zone, in this way they overcome the transport problem of their primary material.

* Preservation

The overall process that takes the products from the production unit to the storage centre, and then to the port, often requires time and multiple steps. Appropriate facilities must be available to preserve product characteristics.

Fresh products are kept as short as possible in the packing plants. There are no cooling facilities and there is not enough space to store large quantities of supply. It is important that the packed boxes are loaded into the cooled containers as quick as possible. The capacity of a normal packing industry is one container a day. It depends of the number and quantity of offers how many containers a packing plant fills in a week.

Processed products can be store for a while. Product characteristics won't change quickly after preservation.

* Management in the centre

Products must move from the production unit to storage centre in the shortest possible time, and should expend as little time as possible in the storage centre.

Exporters of fresh products react on the offers the importer needs. As soon as price and quantity are determined, the exporter searches for primary material in the producing areas or contacts it's intermediaries or farmers. It's a clearly pull-factor industry. The buyers fulfil the pull factor, which is the determining factor for trade. Exporters try to contact importers, but in reality they don't have much influence on the quantity they sell. The demand is initiated in the final levels of the distribution channel and then the product is pulled as quick as possible through the production channel. There is no storage function necessary. Management of this action is difficult.

In contrary, most processing plants deliver the offers out of their storage. Nevertheless, in the case of palmheart the importer requires certain specified characteristics, eg number of pieces in a tin, or labels. Management to fulfil the wishes of these requirements must be well organized. Again the processors of palmheart do not have enough market power to push the product through the marketing channel. They are dependent of the offers the importer needs. As long as he keeps quality of the product high, the buyer will return to him.

* Management at the port

As in the previous stage, time is determine factor, even when the best transportation units are available. Special restrictions during this stage depend on whether products are shipped from an airport or a seaport. In the case of an airport, coordination of shipment and available space are essential considerations.

Fresh products must be shipped quickly after packing. A delay in the harbour can have major negative consequences for the importer and exporter. If quality level is not considered satisfactory at the arrival, financial losses for the exporter are terrible.

import-export function:

This function is associated with the transfer of products from the port of origin to the port of delivery. If it is carried out correctly, charges for loading, unloading, insurance and freight will be reasonable. The following operations are considered critical:

* Coordination of shipment

Air shipments are restricted by lower volume, limited space and high costs, and therefore should be used only for products with a high unit value.

Air shipments are rarely done with products from the Atlantic Zone. There is a palmheart processor who incidently exports fresh palmheart by air. Higher costs are compensated with a high value added.

Sea transportation is useful for products of high volume. Space is not the limiting factor, as in the case of air travel; instead the minimum size of the shipment could be a constraint.

The minimum size of a shipment is one container. A container contains 1500 banana boxes. Containers must be completely filled. Costs of transportation are awful high and half-filled containers bring large losses to the exporter. In general the importers demand completely filled containers, which can contain several products.

* Insurance

Practices with the use of these means of transportation have led to the development of the best option offered by international companies for protecting shipments.

Nevertheless , certain products , when risks are high, cannot be insured. The resulting uncertainty can be a disincentive for agricultural exporters.

Exporting to foreign markets is full of uncertainties if the importer is not willing to pay the importer on F.O.B. conditions. The costs for insurance are at account of the exporter, and if the importer in the United States is not willing to pay the agreed price or he simply does not pay, the cost of the loss of the container are completely at account of the exporter. This situation, in which the exporter exports at C.I.F conditions is likely to be found at the United States market with fresh products, especially roots and tubers.

Processed products are shipped at F.O.B. conditions, in this way the exporter is assured to receive it's money. As soon as a container is shipped and official papers are received the responsibility is at account of the importer.

* Documentation and procedures

Procedures have been well defined for the export and import of agricultural products, and therefore it is usually not easy to facilitate or expedite the process. Specialized services are highly recommended, for managing the documentation.

Necessary export documents are often a restriction to export. Especially starting and unexperienced exporters are confronting a highly complicated paperwork.

Exporters of processed products confront an even higher number of documents. Under which export forms, commercial invoices, certificate of health, phytosanitary regulations.

distribution function:

This is the final stage of movement and handling products. Operations are generally beyond the control of producers and exporters. The critical features of this stage are:

* Custom clearance
Products cannot enter the final market unless documentation and procedure mentioned above are carried out properly.

Exporters in Costa Rica do not have any control of this action. It is for the responsibility of the importer.

* Transportation and handling
The negative effect described above can also be felt if product transportation and handling are inadequate. Losses can even be greater because the value of the products at this stage has increased.

A delay during the sea transport or distribution is for the responsibility of the importer. It depends on the financial condition (C.I.F. or F.O.B.) were the responsibility for the product ends.

* Storage
Product storage prior to final consumption is generally more costly and more critical than at other stages in the marketing channel because of the lengthy time which has elapsed since the product was harvested and the many changes in temperature and environment that it has undergone and which could decrease product quality.

This stage brings to the fore all the effects of the proper or improper handling during previous stages. The final cumulative effect will be reflected in the quality of the products delivered to the consumer, in the cost that has been incurred by this time, and even more importantly, in market acceptance and product reputation.

Fresh products are as far as I know not stored in harbours of destiny. The importers are pushing the products as fast as possible in the local distribution channels. Products of low quality can be exposed to the consumer, in this way creating a bad reputation for the importer as well as the exporter.

Processed products can be stored before they reach final consumers. Some exporters have mentioned plans to set up own storage facilities in the foreign countries. In this way they can supply their clients much quicker. Costs of this kind of vertical integration must be weighted to the extra profits that can be made.

payment and collection function:

Mechanisms for collecting payment and recovering costs of operations fall outside the sequence described above; they are closely associated with the viability of agricultural production and trade activities. Special comment should be made on the following points:

* Payment instruments
Payment mechanisms and options are currently established for international trade. Nevertheless, final payments for the value of products sold frequently fails to be as swift and expenditous as one would hope. It is, therefore, extremely important to reach agreements in advance on payment instruments and other requirements of the transaction.

Hot chile pulp is exported at C.I.F.condition. Price, quantity, quality and time of arrival in the United States is determined. The exporter is responsible for the transport costs to the United States. He has a letter of credit of thirty days for these costs. The time lag between departure and arrival is more or less twelve days. He receives his money eight days later and in this way he has ten more days to pay for the transport.
The exporter of processed products working with F.O.B. conditions, is not responsible for the transport costs. He receives money as soon as ship is loaded.

* Financial brokerage

The use of different payment instruments requires participation by financial institutions, usually banks, on both sides of the transactions. The financial operations must be fast and efficient and this depends on the institutions experience with this type of operation and similar clients.

Financial brokerage is not mentioned by the exporters I have visited. As far as I know the exporters do not make use of experienced institutions specialized in this action.

9.2.3 kind of demand, size of the market, and competition

The price determination takes place between exporter and importer. The size of the market is determined by the importers who demand quantity, and quality of the products. Competition can be divided into national and international competition.

Fresh products:

- Roots and tubers: The exporters generally have contact with a few importers. Well established exporters have the same contacts for many years. When contacts have proved to be stable and trust worthy, there no reason to change from importer. Problems arise as soon as importers do not pay. This happens in a large extend at the United States market. In fact the exporter is a price taker. The buyers are well informed about current supply, and can choose out of a large quantity of roots and tubers exporters. A well established exporter has seldom enough negotiation power to determine the price. National competition is murdering. Prices are dropped of several roots and tubers are dropped to prices for which production hardly possible is. International competition is described in chapter 6.

- plantain: The exporter of plantain, Bandeco, set's the price on the basis of international market information. Supply and quality produced in other countries determine for a certain extend the price for which plantain is exported. Producers of plantain are not confronting national or international competition. They are subjected to their contracts. Bandeco is international a large supplier of plantain and has to take into account other producing countries.

- papaya: Papaya is exported in small quantities. Price determinations takes place in negotiation with the importer.

- hot chile pulp: The price is set in negotiation with the importer, and is dependent of the price at the world market, supply in Costa Rica, and the competition with Mexico at that moment. The importer has more negotiation power. Demand and supply are stable. No strong price fluctuations can be seen. In Costa Rica just a small number of suppliers of hot chile pulp export. Some these have mutual contact. In times of shortage of primary material they cooperate.

Processed products:

- Tinned palmheart: Price is set after strong negotiation with the buyer. The cost price is dependent of the production costs and the supply at the Cost Rican market. Importers are well informed about the supply within the country. There can be arranged several quality conditions. Special wishes of the importer concerning, packaging number and quality of the pieces are discussed. In this way the product is less homogeneous than fresh products. Competition is different. In Costa Rica exist only four large processing industries who export. There is no cooperation between them. In times of shortage of e.g. cans these can be bought of another processing industry. The market for processed palmheart is growing. (chapter 6)

Papaya-juice: I do not know any precise information about papaya-juice, quantity of export is still very small and could increase if contacts in foreign countries were found.

9.2.4 segmentation

The products which Costa Rica exports are in general products who are eaten by immigrants in the United States a very large ethnic group from Central America and the Caribbean exists. This group is still growing and these people are used to eat typical Caribbean food. Even if they are far from "home" they still want to eat these products. In Europe, especially in the United Kingdom and The Netherlands are ethnic groups with similar preferences. However these people are more integrated in the Western culture and a considerable growth is not be expected in this segment of the market.

Nevertheless the non-traditional export products of Costa Rica can be eaten by other groups of people as well. A description of the present consumer in Europe follows:
- The consumer takes a strongly increased interest in a healthy life. Freshness is highly appreciated.
- The consumer appreciates quality more and more and is ready to pay a higher price for it.
- The pattern of spending has a big influence on consumer behaviour. The relatively high standard of living gives the consumer in European countries the opportunity to buy fruit and vegetables in a wide scale of products. The increasing air traffic of tourist gives the consumer the opportunity to visit far-away countries. In this way these tourists become potential exotic fruits and vegetables consumers. The ethnic minorities from Latin America and Africa have stimulated the exotic fruit and vegetables import. (Bunnik,1991) These characteristics can be contributed to the high earning consumer in the United States as well.

The products of Costa Rica can be directed to much larger groups than before because of the trend in consumer preferences for exotic products. This "indigenous market sector" has to be informed before they move on to the regular buying of products from Costa Rica. The terms ethnic and indigenous are used as means of differentiating between, on the one hand, those consumers who already know and use the produce regularly, together with the importers supplying these consumers and, on the other hand, the rest of the population to whom the product is either novel or unknown. Differences in distribution structure can be identified for both sectors.

9.2.5 distribution structure

The distribution structure of the United States market is different from that of the European market.

In most countries distinct trading channels exist for the ethnic market sector and indigenous market sector. The exception is the Federal Republic of Germany, where separate trading channels to serve the ethnic minority groups have not developed. Within both market sectors import and distribution is generally based on the classical pattern of importer, wholesaler and retailer.

Ethnic market sector:
There are separate trading channels for the products of each ethnic group. Importers are usually of the same ethical group and there are often close family links between importers and suppliers. Example, importers of roots and tubers and chili in certain United States markets have strong links with exporters in Costa Rica. The Miami market is dominated by a large number of Cuban importers. These have a strong influence on the market.In Europe such links does not exist. There is no large Costa Rican population in Europe.

Indigenous market sector:
Within the indigenous market sector the focal point remains the traditional wholesale markets. Importers usually also act as wholesalers and have facilities in the major wholesale markets. Trade is based on traditional items both home produced and imported, which are sold in large quantities. (TDRI,1987).

9.2.6 internal analysis

Objectives
The exporter of fresh and processed products in the Atlantic Zone is a leading commercial enterprise, which main objective is to make profit. The possibility to export products is dependent on some factors, under which sufficient working capital, license to export and other documents, and contacts in foreign countries. The importance of good reliable contacts is mentioned as the most critical factor in the process of exporting. Not receiving money for the shipped load is the greatest nightmare of every exporter.

Financial means
Exporters need sufficient financial means to start and continue an exporting business. The starting capital for an exporter of fresh products is less then that of a processing industry. Capital is necessary to build or buy the packing industry with the necessary equipment. Working capital is necessary to pay the labour force, the farmers who sometimes must been paid before the exporter gets paid for his shipment. And if necessary the costs of transport from farm-gate to the packing industry and later on from the packing industry to the harbour. The processing industry owns an expensive plant and technology costs are much higher. The fact that the processing industry is situated in the Valle Central causes that transport costs are automatic higher as well.

market position and market potential
In 1984 a market research study of 67 fresh commodities was done by the Tropical Development and Research Institute in four European countries. Some conclusions were drawn from this study:

- At present, the fruit and vegetables mentioned in the report are still minor items in the overall trade from developing countries. In the future this group of lesser-known fruit and

vegetables is expected to achieve growth rates above the average level expected for established produce. Thus they will gain in relative importance.

- The United Kingdom is the only important market for all the starchy root crops under which the roots and tubers from Costa Rica, but imports are declining.
- Most of the products exported by Costa Rica are still consumed almost entirely by minor ethnic groups. Some limited growth in demand can be expected from this sector. Prospects however will depend on whether indigenous population start to consume these products. There is little indication that this will occur in the near future.
- Lower prices are needed if demand is to grow significantly, but this will be difficult to achieve in the near future. Fruit and vegetables which have to be transported by air, are expensive. The cost of air freight accounts for 30 to 60 per cent of the wholesale price.
- Longer-term prospects depend not only on competing successfully against existing suppliers but also new suppliers, in particular the possibility of European Community production and or extension of the European Community season.
- Latin America countries supplying Europe are increasing in number and volume.
- Ethnic groups have a strong affinity for their traditional foods and have tended to look first to their countries of origin to fulfil their needs. Ethnic groups originated from the Caribbean live mainly in the United Kingdom.
- The ethnic market sector is still the predominant consumer and for this sector an all-the-year-round supply is required. However, little growth in demand is forecast in this market sector. Instead growth in demand is expected to come from the increased uptake of these fruit and vegetables by the indigenous market sector. During the summer, however, this sector is more declined to purchase cheaper E.C. produced seasonal soft fruit and vegetables and so demand for imported produce is weaker at this time.

9.3 OPPORTUNITY AND ISSUE ANALYSIS

9.3.1 strengths

* Costa Rica produces in general good export quality of fresh and processed products due to the good climate conditions and sufficient knowledge about cultivation and handling.

* The macroeconomic environment is favourable for exporters of non-traditional products, as has been written in chapter 5.6.

* The Atlantic Zone is much closer to the harbour of Limón than products from San Carlos. The Atlantic Zone becomes favourable for those products which do not have to be processed in the Valle Central, compared to that region of Costa Rica.

* International distances to Europe and the United States must be compared to other competing producing countries. Costa Rica enjoys an advantage in comparison to South-American countries.

9.3.2 weaknesses

* The high risk of not receiving money of the foreign buyer of the products, which is stated in chapter 7 as the most important uncertainty, is the result of some facts.
  - The financial circumstances, exporting at CIF or consignation conditions increases the risk of not receiving money.
  - The lack of sufficient reliable contacts, and the difficulty of contacting a possible importer.

* The highly bureaucratic organization of official documents causes delay in the export.

* The market information provided by governmental institution does not fulfil the needs of the exporters. A lot of them do not make use of this information.

* The price and production fluctuations cause an unstable export sector. This fact has negative implications for all actors in the marketing channel. The government tries to promote the production of certain crops, like palmheart, by supplying cheap credits. As a result production of this crop increases fast, and supply may exceed demand.

9.3.3 opportunities

* Exporters in the Atlantic Zone who posses some private producing areas can make use of these plantations in times of shortage of a certain product.

* The fact that the functioning of the export marketing channel is not perfect, can be seen as an opportunity to improve the export sector. Returns out of non-traditional export products, have got a better long term expectation then traditional products. Exporters of the non-traditional crops should take advantage of the special attention these products receive.

9.3.4 threats

* Especially in the roots and tuber sector, where entry barriers are low, a large number of exporters entered the market. This increase resulted in a lack of market knowledge, exports of bad quality, and prices far under the actual market price, which created a bad reputation for the Costa Rican products.

* Other producing countries increased their production and international market reputation as well. Their production and market share at the main importing countries should be constantly taken into account. Chapter 6 gives a description of the main competing countries.

* Exporters who do not posses private producing areas are depend on the supply of small-scale farmers. This national supply is very irregular, caused by the fluctuating prices. In times of shortage of a certain product, it becomes difficult to fulfil the wishes of the foreign importers.

* In paragraph 7.1.6 the increasing importance of illegal competition was already mentioned. This is a major threat for exporters of roots and tubers.

9.4 OBJECTIVES AND ALTERNATIVE STRATEGIES FOR GOVERNMENTAL OR INSTITUTIONAL ACTION

To become an established source of supply, importers emphasize the need for regular and reliable supplies. Countries that have built up a trustworthy reputation are those that importers turn to first when looking to extend imports.

In the previous part weaknesses and threats for the exporter were stated. It is important for the future of the exporting companies that these obstructions for trade are being removed.

Actions at governmental level must be taken to prevent that these difficulties influence the export market sector of non-traditional export products in a negative way.
Follows a list of possible actions and recommendations for the near future. The following ideas must be tested on their financial and organizational possibilities.

* CENPRO and CINDE could set up a kind of international marketing campaign, to promote non-traditional export products of Costa Rica and to visit international fairs, organized in eg. Europe or the United States. In this way new contacts can be found. Best is to create a kind of "Costa Rican export brand", like the "Holland" promotion. Costs of visiting such fairs may be too expensive for the individual company. Maybe the exporters joined in a production association could pay an amount of money to support these trips.

* CINDE has an office in Miami and The Hague. From there she could provide some services for exporters of Costa Rica.
  - Verification of the state in which a product reaches the importer. If this importer complains about the quality, Cinde could check if he is right or not.
  - Determination of the demand for certain products.
  - Establish comercial references with new clients.

* The government should have more control on the price and quality behaviour of the exporters. Exporters should be tested on their capability to export. If exporters do not posses sufficient knowledge, have proved to export products of bad quality, or offer products far under the actual market price some kind of penalty must be introduced. Exporters are obliged to report the quantity and export price of their exported products. This must be checked by an independent institute like CENPRO or the special commissions for each product, like CONAYUCA who are aware of the international price level.

* On the other hand, exporters have mentioned the presence of the government as an obstruction to trade. Paperwork should decrease considerably. A reorganization is necessary to get all necessary information from the exporter, without much difficulties for the exporter.

* The government should detect the white washing of drugs money. Individual exporters do not have the juridical power to stop the increasing importance of this development,

9.5. MARKETING STRATEGY FOR THE EXPORTER

It's very difficult to determine what kind of adjustments the exporters themselves could establish to improve the situation in the export sector.

Exporters do not cooperate and are not likely to cooperate because the market is highly competitive. Nevertheless a good market information system could provide the exporters of important information concerning actual supply and demand quantities. In this way prices received by the exporter can be tested whether they give a better reflection of supply and demand.

The exporters of a certain kind of export product could start up a kind of international market information system. The governmental institutions have proved to provide in-actual information, and it is clearly not of their main concern, while exporters are more likely to search for the best.

For this kind of cooperation an association of exporters must be constituted. The marketing department of the CNP could initiate this development. The exporters must be convinced of the advantages of this association.

9.6 PERSONAL EVALUATION

Finally I give some pronouncements about the three non-traditional export products, discussed in this paper.

Export marketing channels of Costa Rica is the main subject of this study and in this way the exporters in the Atlantic Zone perform an important task in these channels. In table 9.1 each product is evaluated on a number of subjects, to make clear what differences there exist.

Table 9.1 Evaluation of three non-traditional export products or product groups namely, roots and tubers, plantain and palmheart, 1992.

	roots & tubers	plantain	palmheart
number of exporters	high	1	few
entry barriers	low	very high	high
competition	high	-	high
costs of processing	low	average	high
private plantations	small %	no	large %
demand at world markets	stable	small growth	growing
international price fluctuations	a lot	few	few
national price fluctuations	a lot	none	a lot

Source: Susan Hoekstra, 1992

Roots and tubers

The root and tuber sector in Costa Rica is confronted with a lot of problems, although quality of most roots and tubers is international competitive. From 1988, this sector has expanded at a fast growth rate. Together with new possibilities for farmers to grow export products, problems arose. Entry barriers were very low and this attracted a lot of new coming and unexperienced exporters. In the future this unstable situation, which has negative consequences for farmers and exporters has to evolute towards a new equilibrium, in which exporters have found reliable contacts with foreign importers. International demand is not expected to grow a lot in the future.

Exporters , although some of them have large private plantations, will always need the produce of the small-scale farmer to fulfil the needs of the importer. So farmers will always have the possibility to produce roots and tubers for the export sector. Unfortunately, the relation between farmer and exporter is in many cases bad. Contacts have to improve. Otherwise no control about demand and supply is possible. Entry barriers should be higher to protect the sector from bad functioning exporters. Exporters operate nowadays in a highly competitive market

Roots and tubers still offer good opportunities for farmers to grow, subject to the fact that at the level of the exporters a better coordination is needed.

Plantain

As long as Bandeco is the only exporter in Costa Rica, this monopolistic situation will continue to exist. Farmers are not confronted with price fluctuations, as long as they have a contract with Bandeco. On the other hand, there always exists the risk that Bandeco leaves Costa Rica, or that Bandeco sets up private owned plantation. At the moment there exist some initiatives to set up plantations and organize export by another private enterprise. This company invests large amounts of money to become a competitor of Bandeco. This is not possible for the small-scale farmer because investments and transport costs are far too high.

International demand is growing at a small growth rate. Large changes are not to be expected. As long as the quality of the plantain from Costa Rica is good, and farmers do not complain about the prices, production of plantain offers a good farm income.

Palmheart

Palmheart is exported tinned and processing costs are high. For this reason entry barriers are much higher than in the roots and tuber sector. Internationally, palmheart is a product with good opportunities. Number of consumers in Europe and the United States are still growing.

Quality of the export product has to be very good, and the product has to be processed as quick as possible after harvesting. Exporters with a processing plant find it difficult to have contacts with a lot of small-scale farmers. They need large quantities in once. For this reason the number of hectares owned by these exporters has grown considerably. Governmental initiatives to stimulate the growth of palmheart by small-scale farmers often failed because the farmers could not sell the produce to exporters. Palmheart is a growing sector in Costa Rica, but small-scale farmers will hardly profit from that.

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APPENDICES

Appendix 6.A.
production data of cassava

Cassava is cultivated in large parts of the world. In 1990 world production was 158,5 million metric tons . Africa is the most important producer of cassava, with a production of 73,3 million metric tons (46 %). Asia achieved a production of 51,4 million metric tons. In the last years Brazil and Thailand have increased their production considerably. (table 6A) (Obando and Viquez,1992)

table 6A World production of cassava in millions of metric tons, 1981 till 1990.

Country	1981	1983	1985	1987	1989	1990
Asia	47,3	45,7	48,2	47,7	54,4	51,4
China	3,7	3,9	3,7	3,3	3,2	3,2
India	5,9	5,3	5,7	9,8	5,3	4,5
Indonesia	13,3	12,2	13,8	14,4	16,6	17,1
Thailand	17,7	19,0	19,3	19,6	23,5	20,7
Africa	49,6	50,1	17,7	58,4	62,1	73,3
Angola	1,9	2,0	2,0	2,0	1,9	1,9
Ghana	1,9	1,7	3,1	2,7	3,3	3,6
Mozambique	3,2	3,2	3,2	3,4	3,4	3,4
Nigeria	11,0	10,0	12,6	14,0	16,5	26,0
Tanzania	6,0	5,4	5,5	6,0	6,3	5,5
Zaire	13,2	14,6	15,5	16,3	16,3	17,5
Cent. America	0,9	0,9	1,0	1,7	1,7	1,9
South America	30,3	27,1	28,6	29,7	29,9	31,7
Brazil	24,8	21,8	23,1	23,6	23,2	24,6
Colombia	2,2	1,6	1,4	1,3	1,4	1,8
Oceanie	0,2	0,2	0,2	0,2	0,2	0,19
Tot. World	128,3	124,0	135,7	137,7	148,3	158,5

Source: FAO, Food Outlook Statistical supplement, 1987 and
FAO Yearbook production 1989, 1990.

Appendix 6B
Result of consumer study done by SIMA (Sistema de Informacion sobre el mercadeo Alimentario)

As most important reasons of buying palmheart were given:
- the image of something special, meals prepared with palmheart have a special distinction,
- the taste is soft and easy to combine with other ingredients,
- in general palmheart is ready to use, it doesn't need very much preparation.

1. Supporting farmer organizations to guaranty it's official existence.
In general farmer organizations in the roots and tubers sector don't have sufficient control about the following aspects:
- Commercialization channels of the product
- control of supply
- necessary credit facilities
- structure of production costs and, or processing costs
- lack of an actual information stream to it's associates

Conayuca pretends to strengthen these deficiencies with inter-institutional accompany in different ways so that these organizations can fulfil there commercialization task. Only if the farmer organizations have knowledge of the different commercialization channels, they can negotiate about adequate prices. The implementation of actions necessary can be accelerated because of the high alphabetic rate of the farmers (85%) and the fact that a growing number of farmers is conscious of their problems and are willing to cooperate. (ICTA, 1991) The strength of this last reason will be diminished if farmers have had bad experience or a lack of credibility in the farmers organization.

2. Avoiding the irregularities of the transaction producer-buyer
Conayuca tries to solute this problem by creating a prototype of a selling invoice, which can be used by the farmer if he sells it's products. This type of invoice has to protect the farmers from possible fraud and helps at the same time the farmer organization to keep an overview of all transactions done.

3. Creating a commercialization channel between farmer organizations and distributing clients in foreign countries.
From 1988 exporting companies of cassava initiated private sowing project to become partly self sufficient in the supply of cassava.
In this way they avoid the increase in prices in periods of low supply of the product. The increase in the number of producers and the increase in the cultivated area has evidently brought problems as well. To avoid that this situation results in a permanent reduction of prices, Conayuca searches organizations with experience and a supply of a high quality product. Conayuca is contacting foreign distributors. In this way these products can be exported directly to final markets without interference of a local intermediary.

B. Credit
An increase of 46 % of formalized credit to sow cassava can be noticed in the period 1989-1990. Because of the abundance of area cultivated with cassava, Conayuca considers that credit possibilities for 1991 need to be subjected to the demand of the product, in consensus with the farmer organizations, the national bank system and Conayuca.

C. Technical assistance
Traditionally the MAG provides technical assistance to the producers of roots and tubers. Nevertheless other institutions offer as well these services in isolated form. Conayuca searches possibilities to integrate the efforts of the public and private sector. (ICTA,1992)

Some of the actions which have to be taken.
- Definition of the technical resources available in the area. Actually 800 farmers in the Atlantic Zone don't have access to technical assistance.
- The organization of the farmers who need immediately assistance. The farmer needs to identify the problems he has, in this way he can directly apply for assistance.
- To find varieties which are productive and more adapted to the needs of the small farmer. (Gutiérrez and Zuiga, 1991)

In Costa Rica palmheart is quite known, 97 % of the persons interviewed had heard or eaten palmheart once before. The study investigated several marketing subjects like, the place were palmheart is consumed, the presentation of the product, the frequency of buying, the planning of the buying decision, the preferred brands, the satisfaction of the consumer and the size of the market in Costa Rica. According to this study the domestic market for palmheart is 0,224 kilo per year per capita. This implies a consumption per year of 672 tons metric per capita. This implies a total consumption per year of 672 tons metric. This figure combined with the output figures of Corbana (Zamora,1990) makes it possible to give an estimation about total acres of palmheart for domestic consumption. It signifies 500 acres of cultivation which is approximately 2.216.000 pieces per year. According to Ruiz, (pers com) the national market is about 3,5 million pieces.

Several conclusions can be drawn from this study. The consumer in Costa Rica has a moderate level of satisfaction of the product. Consumption could grow if two basic aspects were improved, namely texture and taste. If the number of household would grow considerably. (Aguilar, et al, 1991)

Appendix 6.C
quality requirements for the industrialization of palmheart

Palmheart is a heterogenous product. Thickness and length differ a lot. There are several packing requirements which has to be met to keep quality standards high.
- The palmheart has to be in the processing plants in less than 24 hours.
- Palmheart as to be cut at a length of 60-70 centimetres.
- The palmheart has to be peeled till there remains only two peelings.
- The diameter on the side of the meristem has to be between 5 and 7 centimetre.
- The palmheart pieces has to arrive the industrial plant dry and without any sign of fermentation or mould.
- The palmheart cleaned in the industrial plant has to be white.
- A tin of 225 gram, drained weight has to contain a minimum of 6 trunks.

A box of 24 tins contains as much as 36 palmheart pieces. With the introduction of new varieties this output could become better.

Appendix 7.A
the National Cassava Commission (CONAYUCA)

In 1988 a commission has been created to resolve the problems in the cassava branch. several institutions participate in this commission like MAG, CNP, Ministry of Economy, Industry and Commerce, IDA, representatives of exporting companies and farmer organizations. (ICTA,1991)

Objectives of the commission

A.price politics
In Costa Rica prices are determined by supply and demand. In times of oversupply prices paid to farmers drop considerably and this causes large losses to the farmers. The actions taken by CONAYUCA to avoid drastic falls of prices were the following:

Appendix 7.B
Processing roots and tubers

FRESH: Roots and tubers destined for the export market are in general selected at farm level. Damaged pieces are removed. At packing industry level another selection takes place. Roots and tubers are cleaned and washed in a bath with anti-insects solution. Then dried in the open air or with the help of vans. Cassava is the only crop which is paraffined. The other tubers are sometimes wrapped in a piece of paper. All products are packed in banana boxes of 50 libras, equivalent to 23 kilos.

FROZEN: After arrival in the packing industry the cassava is washed with it's husk. Then it is peeled and cut in little pieces. These pieces are washed again and then an immersion of chlorine is added. In general the cassava is packed in plastic bags of 1.25 libra. A box of 20 libras contains 16 of these bags. After packing in the plastic bags, the cassava is frozen in large freezers and stored till transportation.

FRIED: For the processing of cassava in this way one needs a big deep fryer. After this relatively high investment, processing is easy. The cassava selected, peeled and cut with a machine to cassava chips. Palm oil is used to fry the chips. Afterwards salt and sometimes a flavour is added.

Appendix 7.C
description of "Mejores Alimentos de Costa Rica", company which fries cassava

This company owns 150 hectares of cassava in Guácimo, and this plantation provides the company of the total cassava supply. In this way the company is not dependent of cassava production of small farmers. The cassava chips are processed and then packed. Several packages are possible. small bags of 0,6 once, till big ones of 6 once. These plastic bags are made of polythene which is not very well ecological considered. Ideas to develop recycled bags are an important aspect to attract the western consumer who buys ecological products from third world countries in the conviction that this attributes to the development of these countries and the environmental solutions. Margin on this kind of product is very high and this company wants to take advantage of this development.

Fried cassava is exported to the United States (40%), Canada (10%), Puerto Rico (10%), Panama (10%) and the United Kingdom and Switzerland (10%). Internationally produce Indonesia, Honduras Panama, Venezuela, Dominican Republic and Kenya fried cassava. The United States is an indirect competitor, because they fry the imported fresh cassava themselves. Advantage of Costa Rica compared to the United States is the fact that the quality is better. Transportation of primary material influences quality and it's much better to fry the cassava quickly after harvesting. Another advantage is the fact that costs of labour work force is much cheaper in Costa Rica.

Development of international markets is done by visiting international snack fairs. A lot of publicity is necessary to make this product known in western markets. The snack sector is a very competitive market and new developments follow up quickly. "Mejores Alimentos de Costa Rica" wants to take part in this market.

Appendix 7.D
explanation for decrease in the export of ginger

Explanation of a director of an export company in the Atlantic Zone. He is original from the United States and his father started long ago exporting highland products like cauliflower. Since 1976 he started his own business with seed-selection and production of ginger. Ginger was exported to the United King dom, where there is a large ethnic market for this product. In that time only he and some people in Nicaragua exported to the european market. In the 1980's Thailand and Brazil started to export and at the moment these countries are the main competitors.

In November 1989 he called some known Brazilian exporters to ask how successful the production in Brazil has been. In that year Brazil struggled with a drop in production because of bad weather conditions. He kept up a good relation with these producers. The production season of Brazil differs from that of Costa Rica. In this way a kind of oligopolistic arrangements can be made to control the world market supply. This is only possible if both parties know how many products are commercialized at the different marketing levels. With the help of this market information he predicted a very good year for Costa Rica, as result of the low world market supply at that moment. Costa Rica could have profited by this fact. But what happened?

Other new coming and inexperienced Costa Rican exporters of ginger, unaware of this market information, quoted there price far under the price which according to him was the real reflection of world demand and supply. The clients in the United Kingdom bought the low priced ginger from the competitors. Unfortunately this ginger proved to be of bad quality. Clients were very disappointed in the Costa Rican ginger. This situation repeated itself several times. The reputation of bad quality ginger affects all exporters. Brazil increased there production of ginger and could take advantage of the decreasing reputation of Costa Rica, by providing ginger of stable quality. Costa Rica actually consequently less for their ginger than Brazil. Brazil receives 20-21 $ per box of 30 libras, while Costa Rica gets only 12 $ per box.

Appendix 7.E
description of a private business, EXPACA S.A.

History
The director of Expaca started in 1990 together with two other associates an commercial agricultural producing company. He's a Colombian and because of problems in the textile industry in Colombia he had to close his company over there. In fact he did not had any agricultural background.
In 1990 they bought a plantain plantation of 35 ha. in a bad condition and with good technological assistance it's now in full production. At the moment the company possesses 150 ha. plantain, 300 ha. banana, and around 700 heifers.

General problems
The most important problem in Costa Rica is the lack of sufficient knowledge of the production of plantain. In Colombia technology is much more advanced. The institutions of Costa Rica think they know what's necessary, but in fact nobody in Costa Rica has experience in the production of plantain. Another problem is the monopoly of Bandeco in the export of plantain. Nobody in Costa Rica exports plantain directly to European or United States markets. The price paid by them is in general not bad, although prices at international markets are considerably higher. Until 1996 Expaca is sure to sell to Bandeco,but later on they want to export without interference of Bandeco. Expaca is searching in the United States for contacts to sell directly at this market. Difficulty is that there does not exist a direct commercial infrastructure with the United States.

Commercialized products
The technology used by the production of plantain is from Colombia. The contacts they have in Colombia provide them with good seeds. Seed quality of Costa Rican plantain is bad and this influences output of the plantation. An important fact is the development of a "meristeme" which will improve production considerably. It's developed in Colombia and Expaca can use this highly productive technology.

Appendix 7.F
description of Coopepalacios, a cooperation of plantain producers.

History
In 1987 a cooperation was constituted as a result of a private initiative. Main goal was the production and commercialization of bananas by small farmers. Four similar initiatives in the past were not successful and these projects failed. The cooperation confronted many problems in the first years and forced the management to switch to plantain production.
A Canadian development organization provided courses in the field of knowledge about philosophy and functioning of a cooperation.

General problems

General problems a starting farmer organization confronts:
- Producers don't have sufficient capital, and they lack credits.
- Lack of knowledge in the field of the organization and administration of financial matters, and the obtaining of juridical papers.
- Lack of the right assistance, institutional, technical, economical and organizational. A starting cooperation needs persons with interest, money, time and knowledge to make the cooperation successful.

Commercialized products
At the moment the cooperation produces fresh plantain for the export and there is a new initiative to process the rejected plantain. The cooperation possesses several packing industries for the fresh plantain and a little industrial plant to process the "patacones", a kind of dried pressed pieces of plantain. They are packed in little bags of 250 gram and the capacity of the plant at the moment is 1000 bags a day. The Canadian organization finances a market investigation of the Costa Rican market done by CINDE.

At the moment 54 farmers are member of the cooperation of which 22 are commercially active. There are 12 administrative persons. Entrance for new members is 5000 col and 10 col for each commercialized box of export plantain.
There is a contract of 112 ha. with Bandeco, production of this area can directly sold to them. There are more hectares in production. The extra plantain and the rejected export plantain is sold at the national market. The farmers are responsible for this kind of commercialization. Coopepalacios wants a contract for 250 hectares. In this way the cooperation could have more active members. The cooperation can only fill up half a container, if they had their own export contacts. This is not enough to take up exportation themselves.

Now Bandeco is responsible for the exportation of plantain produced at the 112 ha. Coopepalcios needs to fulfil the strict quality requirements which Bandeco demands. Bandeco provides the cooperation with the necessary fungicides and banana boxes. In fact Coopepalacios receives 8 U.S. $ per box of 51,5 lb., this is 1 U.S. $ per box less for the necessities. FOB price is 9 U.S. $, while in Europe 25 U.S.$ is paid. Transportation to Limon is done by trucks of the cooperation. In the future Coopepalacios wants to do the fungicides themselves. They want to start their a credit facility for their members.

Appendix 7.G
The National Palmheart Program (El Programma Nacional de Palmito de Pejibaye (P.N.P)

The National Sector Program (Programas Nacionales Sectoriales, P.N.S.) forms an integral part in the process of the regionalization and zonafication . It searches impulses to strengthen the different activities of the agricultural sector. The National Palmheart Program is one of the parts of the P.N.S. which gas to contribute to the development of the agricultural sector in Costa Rica. Dr. Mora Urpí is the director of this program. Investigation on all kind of aspects of the palmheart production and commercialization is done by different institutions, under which IDA, MAG, CNP, BNCR, BCR, Asbana, and the UCR. Research has been done in the transfer of technology, credit, market information, support to farmer organizations and international cooperation (Zamora, 1990).

Appendix 7.H
list of exporters of palmheart which are important for the Atlantic Zone.

Conservas del Campo This is the biggest palmheart processing industry of Costa Rica. The company, which is part of DEMASA, a mexican investor, processes not only palmheart but as well several juices and sauces. The company has two plantations in the Atlantic Zone under cultivation. In Guápiles and Sarapiquí is together 1200 under cultivation production. They produce their total demand of palmheart and seldom buy from medium producers. The capacity of the plant in Tibas, San José is 1.200.000 palmheart pieces a day. A new plant is planned in Guápiles which can process another 1.200.000 palmheart's. Output will be higher because of lower transport costs. The unpealed palmheart pieces are cooked and then pealed and cut in pieces. Selection is done manually and the different small pieces palmheart are put in tin or glass. There are different quality levels. Palmheart pieces are for 97% sold on international markets, mainly France (50%) and USA (20%). There also exist relations with Spain, Belgium and the United Kingdom. Recently contacts with Japan have been developed. Japan is a new export market.
Conservas Amador Historically is this the eldest company. Palmheart pieces are processed in plant in San José. Plant has a capacity of 1000 palmheart pieces a day.
Coagros This company is part of the cooperative Coope Tierra Blanca R.L.. The palmheart pieces are bought from small farmers in the region Guápiles and Sarapiquí, and processed in the plant in San José. Plant has a capacity of 4000 palmheart pieces a week, but processes at the moment only 2000 pieces a week. Little bags of 210 gram of whole palmheart or pickled palmheart are sold nationally in different supermarket chains.
Hortifruti S.A. This company packs and processes a number of different fruits and vegetables for the supermarket chain Mas Por Menos. The palmheart pieces are processed and packed under the brand Sabe Más. The processing plant has a capacity of 4500 pieces a day. Hortifruti receives palmheart pieces from small farmers from Guápiles. Farmers have contacts of sowing.
Planeación e ínvers. K.S. S.A. This company commercializes fresh palmheart on the international market. Small quantities are flying to Miami and New York. Product is packed in plastic bags with a bit of lemon juice. Palmheart is bought in region Guápiles (60%) and Siquirres (30%).

Appendix 7.I

survey of farmer associations of producers of palmheart who are active in the Atlantic Zone

Recently the Federacion Nacional de Productores de Palmito was constituted. Several associations in different regions in the Atlantic Zone are member of this federation.
The association of producers of palmheart in Pococí has approximately 40 small producers as associates. The president is Emilio Espinoza, who is settled in Colegio Agropecuario in Guápiles. Nowadays the association produces palmheart for industrial use, they process per day between 3.500 and 4000 palmheart pieces which are exported to Argentine in tins.
The association of producers of palmheart of Guácimo has approximately 70 little producers as associates. It's president is Elias Ulloa.
The association of producers of palmheart of Siquirres has been recently constituted.
In Santa Rosa, Siquirres and Horquetas are also individual functioning associations. In general the associations take care of the commercialization of palmheart. They sell the product to agro-industrial plants, or try to sell the fresh palmheart on the national market.

Problems of the associations

Concerning Asociacion de Productores de Palmito de Sarapiquí. (APPSA)

In general:

* Problems with the marketing of the product. Unstable relationships with the industrial plants.

Aspects in relation to credit

* Problems with the recuperation of credit, which was given to farmers to make it possible to invest in palmheart. The majority of farmers who have less than 4 hectare of palmheart have difficulties with paying back credits. Nowadays a minimum of 5 ha. is required to be eligible for credit. (Ruiz, pers com) Farmers who have other economic activities have less problems. Some farmers have used the credit for other activities, like supporting their families with food and living.

Aspects in relation to the cultivation of the product.

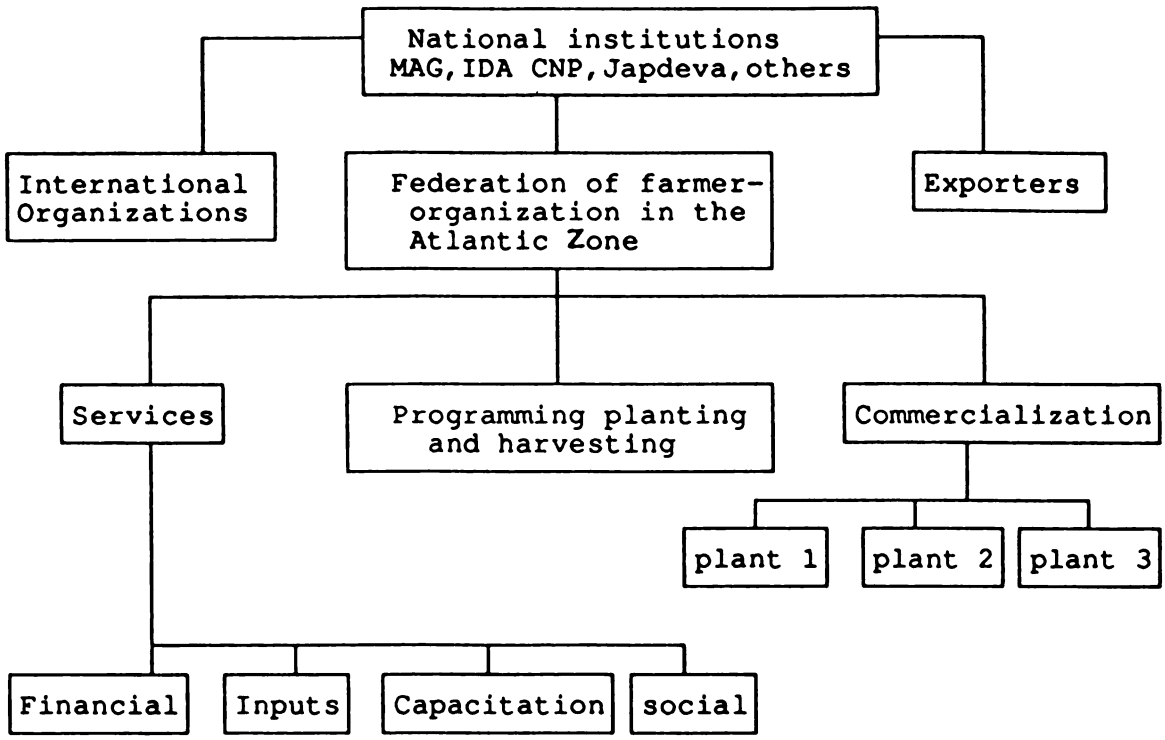
* There is not much experience and knowledge about the cultivation of this product. e.g. Farmers make inadequate use of the hijos (suns) and inadequate use of fertilizer, bad use of herbicides. (Ruiz and Spinoza et al, pers com)
* A bad drainage or a dry period influences the quality of the product.
* Labour costs are high in this region because of the high labour demands of the banana plantations.
* Some farmers work on the plantations and neglect their own crops.

Aspects in relation to the organization.

* There is no exit a planning of sowing and harvesting.
* There does not exit a system of quality control on the farm. Associations have to commercialize palmheart of different quality-levels.
* Lack of capacity to fulfil the buying and selling function. Farmers expect that the association is the solution for all their agricultural problems
* Lack of knowledge about administration and managing of the association.
* There is not much participation of the associates in the organization.
* The communication between board of directors and associates is insufficient.
* There is a lack of credibility of the associates in the organization.

appendix 8.A
proposal of the MAG and IDA to start up a federation of farmer organizations.

The following model illustrates the structure of a federation of farmer organizations in detail.



The institutional backing provides technical assistance to achieve development and strengthen the productivity, financing, and markets for the products.

To find financial resources and eventually contacts to export directly to foreign countries, links with international organizations are needed.

The federation provides several services. Credits can be obtained, a department store with all the necessary inputs sold at a price below the regional commercial price. Courses to strengthen the capacitation, and social situation are given.

The most important task, is the programming of planting and harvesting. With the help of the suspected demand for a certain crop, an adjusted supply can be divided under all the separate farmer organizations.

The commercialization of the crops is done with the help of three processing/packing plants. Exportation of the crops by the federation can only be successful if contacts with buyers in foreign countries are found. The processing/packing plants are the first step into to marketing channel and with this higher value added, a higher price for it's products can be expected. (Vinicio and Garay,1991)

In august 1992, negotiations about this form of organization were still busy.

Appendix 9.A
the transformation of agricultural products

Processing is a the function of the marketing channel which modifies the basic structure of the product, to preserve and make it attainable for the consumer.

Objectives of the transformation are:
* To change the original form of the product
* To reduce the volume, which makes it more efficient to export
* To reduce the perishability of a lot of products, especially with fruits and vegetables.

Advantages of the processing:
* Conservation of the quality
* Availability of the product for much longer periods
* Convenience for the consumer
* Use of the surplus is sometimes possible

Location of the processing plants
Theoretically there are three possible locations for the processing plant:
* Close the area of production
* Close to centers of consumers
* At a strategic point between these two locations.

The most important aspect in the choice for a location for a processing plant are the total costs of gathering the primary material, costs of the fabrication and costs of distribution to each of the possible final locations.

In Costa Rica the majority of the processing plants can be found in the Valle Central. Various reasons can be given for this fact:
* The road infrastructure is good organized. Fast transport is possible from almost all the producing areas.
* Another factor is the working force. In rural areas it is becoming a scarce factor, while in the urban centers it is almost always an abundant factor.
* The lack of a good infrastructure in some areas makes transport and handling of the products difficult. It is easier to take the primary material out of the area, than to take the processing plant with all it's necessaries to the area.

Methods of gathering the primary material
The processing plants use several sources to provide themselves with primary material.
* Buying at local or regional markets.
* Buying at the plant-gate from intermediaries.
* Buying directly from the "fincas" or small farmers.

This last type of buying experiences several advantages:
* The plant has an adequate control of the quality of the products he purchases.
* Another advantage is the fact that the processing plant can influence the farmer in different ways, eg technical assistance, providing of good varieties, programming planting and harvesting. In this way he obtains the desired product.
* The functions of gathering and buying can be combined and in this way a better efficiency is reached. (Villalobos, 1989)

Appendix 9.B
description of two export promotion institutions

CINDE is a private non-profit organization, which main goal is to increase non-traditional exports by attracting foreign investment and strengthening local industry and agriculture.
Cinde is funded by a grant from the Agency for International Development of the United States (USAID). Although Cinde now operates independently, United States influence is still present. The agricultural division gives advise to different agricultural research projects, and offers market and technical information. They provide private marketing studies, which are quite expensive. Only the biggest export companies can finance private market investigations. Quality of these are good.
At the moment Cinde is working on an export marketing study at national level for a plantain cooperative. This study is financed by a Canadian development organization. After success is proved at national market level, entrance in foreign markets could be tried.
There is cooperation between Cinde, Earth and Corbana. At the experimental fields of EARTH, 15 hectares of plantain has been sowed with plantain. Main goal is to produce a high yield per hectare under the best technological circumstances. Results of this investigation are used by Bandeco United Fruit Company and Del Monte. Input and technology level is high and probably small farmers won't make use of the results of this study.

CENPRO is the official governmental export and investment promotion agency. It offers services to export companies, investment companies, cooperatives, associations,international organizations etc. It is the clearing house for information about the export business of Cost Rica, provides ample data about the export position, and information about foreign markets and foreign import regulations. Exporters visit Cenpro to organize their official export documents.
Cenpro is governed by a board, whose president is the Minister of Foreign Trade, it's members are from the public sector (60 %) and the private sector (40 %). There are four operational divisions:

I Export and Investment promotion
II Statistics and Trade information
III International Aid
IV Operative and Legal Export/Investment requirements