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Agriculture in Haiti



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Preface

Mindful of its technical cooperation responsibilities, IICA identified the critical need for improved information on the agricultural sector of member countries to assist them to more rapidly integrate with the global marketplace. The identification of the challenges and opportunities for the agri-food sector of constituent member countries, along with the development of a compendium of the best available comparative statistics for agriculture, was identified as a starting point.

Carlos E. Aquino G
Director General, IICA

The information system in Haiti is notably deficient, particularly for the agricultural sector. These deficiencies derive, in large part, from the inadequacies of the data collection system. Within the limited system, obtaining and/or estimating reliable data on production levels in particular, has been made more difficult as a result of the widespread occurrence of inter-cropping and variability of yields in Haiti. In many instances, estimates of crop production and trade are imprecise with discrepancies between production data provided by the Ministry of Agriculture and that estimated by experts from bi-lateral aid donors, international organisations and private consultants.

This working document represents one in a series of 13 working documents prepared for the IICA Caribbean member states, compiled for the specific purpose of preparing the document titled "Performance and Prospects for Caribbean Agriculture". The preparation of this working document constitutes another step towards the goal of improving access to information on the agricultural sector.

This working document was the result of collaborative effort between the Diana Francis of the IICA Caribbean Regional Centre (CaRC) and Mrs. Alexis M. Gardella, Programme Coordinator in the IICA Technical Cooperation Agency (TCA) office in Haiti. The information and analysis are based on statistics and descriptive information extracted from various national sources, as well as from reports generated by regional and international counterpart institutions. It is anticipated that the information will be useful, not only to individuals and institutions working in agricultural development in Haiti, but also to other parties interested in information on the agricultural sector in general.

The guidance of Dr. Patrick Antoine Head, Socioeconomic Policy, Trade and Investment Programme in the preparation of this working document is acknowledged. This report would not have been possible without the full commitment of the IICA Director General, Carlos E. Aquino G. and the Caribbean Regional Centre (CaRC) Director, H. Arlington D. Chesney.

This exercise will be undertaken every two years. We welcome comments aimed at improving subsequent reports. All errors and omissions are the responsibility of the authors.

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Country Profile

Haiti, occupies the western third of the island of Hispaniola, bordered to the east by the Dominican Republic. Total land area is 27,800 sq. km, including four large offshore islands: La Gonave (680 sq. km), La Tortue (180 sq. km), Ile a Vache (52 sq. km) and Grand Cayemite (45 sq. km), and many smaller islands and cays. The country is mountainous and approximately 63% of all lands have slopes greater than 20°. Weather conditions tend to be extreme with high variations in average temperatures and rainfall patterns. Rainfall ranges from less than 300mm in the northwest to more than 3,000mm in the mountains of the southwest.

The bulk of Haiti's natural resources comprise agricultural land, forests and surface and ground water. However, population pressure and lack of investment in the agricultural sector have caused extensive cultivation of hillsides (or marginal lands), on inappropriate slopes and soils, thus contributing to a greatly reduced productive capacity of lands.

Haiti, a small, densely populated country with more than 6.76 million (1992) people, is the poorest country in the Western Hemisphere. In 1995 per capita GDP was estimated at US\$272. Although 69% of the population reside in rural areas, the rate of urban population growth is almost four times that of the rural average. Low income, poor sanitation, nutritional deficiencies, illiteracy and lack of basic infrastructure all contribute to high rates of mortality and incidence of disease.¹

Between 1991-1994, political instability and the U.S-imposed trade embargo between 1991-1994, were the main factors responsible for the acceleration in the economic decline. Gross economic activity decelerated by roughly 8% per annum between 1991-1994, led by declines in the agricultural, manufacturing and tourism sectors. Reduced output levels, as well as the trade embargo, adversely affected the trade sub-sector, and exports declined from

US\$200M in 1990/91 to under US\$60M in 1993/94.

With the return to constitutional government in October 1994, the Economic Reform Programme (ERP), which was implemented in 1991, was resumed. Substantial support was received from the international community, regarding implementation of macro-economic reforms, aimed at macroeconomic stability and revitalising the productive sectors, particularly agriculture. Fiscal reform and investment in infrastructure (in the areas of health, education and the environment) constituted an essential element of the ERP. The resumption of foreign economic assistance and the lifting of the trade embargo greatly contributed to the economic turnaround in 1995.

Growth of 4.5% was achieved in 1995. Consumer prices, which reached a high of 38% in the 1993/94 period, fell to 27% by the end of 1995 and the exchange rate was stabilised. The lifting of the trade embargo, humanitarian aid and external financing had positive impacts on the trade sub-sector and the external current account deficit. Continued reforms under the ERP is expected to strengthen the domestic economy, improve social conditions and promote the country's external competitiveness. However, economic stability in Haiti will continue to depend on the maintenance of a stable political environment.

Table I - Haiti

Key Economic Indicators	1991	1992	1993	1994	1995
G\$/US Exchange	7.7	9.1	2.4	4.7	14.5
GDP G\$M-1976 MP	4,969	4,234	4,123	3,687	3,855
Agriculture	1,413	1,384	1,343	1,316	1,323
Forestry, Fish, Mining	289	299	296	296	305
Manufacturing	663	521	517	345	365
Construction	321	147	142	107	128
Services of which	2,137	1,758	1,694	1,510	1,597
Hotels & restaurants	19	14	11	8	9
Government	611	623	685	720	720
Balances					
Fiscal G\$	-859	-380	-588	-742	2,800
Visible Trade US\$M	-288	-126	-178	-109	-445
BOP US\$M	12.8	-4.9	-11.1	-0.4	198.8
External Debt, US\$M	837	846	863	940	781

Source: IMF Document, SM/96 252. Statistical Annex

¹ A more detailed discussion on human development in Haiti may be obtained from the UNDP Human Development Report, 1996.

Agriculture in Haiti - Sector Profile

Socio-Economic Role

Over the 1991-1995 period, the agri-food sector, including primary production, fisheries, forestry and food processing, accounted for over 40% of total economic activity in Haiti (Table 1). However, primary agricultural production (crop and livestock), accounted for the largest share in gross national output, averaging 30% per annum over the same period, compared to a 5% average share of agro-industrial activity.

Table 1: Haiti, Agricultural GDP (Shares %)
@ 1976 prices

	1991	1992	1993	1994	1995
% Share in GDP					
Agriculture	28.4	32.7	32.6	35.7	34.3
Forest, Fish Mining	5.8	7.1	7.2	8.0	7.9
Food Processing	4.5	4.4	4.2	3.8	3.8
Beverage Processing	0.4	0.5	0.6	0.4	0.4
Tobacco Industries	0.7	0.7	0.7	0.5	0.5

Source: IMF Document, SM/96 252. Statistical Annex

The poor performance of the agri-food sector between 1991-1995 resulted from continued declines in the traditional export crops over the last decade, low and declining levels of productivity (due to soil degradation and cultivation on marginal lands), lack of access to credit or affordable agricultural inputs and insecurity of land tenure. This situation contributed to sharply declining agricultural incomes, adverse impacts on rural welfare and stimulated an increase in the rural-urban and international migration.

In spite of the poor performance of the agriculture sector, agricultural activity continued to provide direct employment to an estimated 60% of the labour force. Family labour accounted for a significant proportion of the agricultural labour force, thus making labor the least scarce factor of production. The role of women in particular, is very significant, both in terms of providing farm labour and in undertaking the domestic marketing of farm produce.

The role of agriculture in Haiti's economy received increased attention in recent years, particularly in the post-1994 period. The reversal of the decline in the agricultural sector

was seen as critical to the country's overall economic recovery, particularly given its potential to improve the situation in the rural communities.² In this regard, the development of the agricultural sector was afforded high priority by the constitutional government. The need to create favorable conditions for the export of value-added agricultural products also featured high on the development agenda.

Organisational Characteristics

Public sector support continues to be critical to agricultural sector development in Haiti. Government is the main provider of basic services, including, research, extension, input supply and infrastructure development. The Haitian Government is also the single largest land owner in the country and was directly involved in a number of farm production activities. Through its parastatal regional development offices (RDOs), the state was also directly responsible for the maintenance of the water management and irrigation systems for over 90% of the irrigated lands.

This relatively high level of direct state involvement in the agricultural sector contributed to the inefficiencies in the production, distribution and marketing systems. Within the framework of the ERP, privatization of most of public sector agricultural services, based on capitalization, concessions, and management contracts has been undertaken. The ERP called for a reduction in State participation in joint companies to, at most, 50% ownership of assets. The first round of the State divestment and privatisation program has begun and despite considerable domestic controversy, the program was to be fully implemented by the end of 1998.

The Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) established four priorities for the sector:³

² Evaluation of Haitian Agricultural Development with the use of Principal Components, Ronald Ward & Ahmed Zahalka, University of Florida, Journal of Agricultural Economics, Vol.XXXV, No.2, May 1984.

³ MARNDR: *Politique Sectorielle*, Port-au-Prince, May 1996.

- (i) development of irrigation infrastructure (establishment of large irrigation schemes in the plains and rehabilitation of water retention and distribution systems in mountainous areas);
- (ii) land tenure reform;
- (iii) improving the efficiency of agricultural markets by providing affordable extension services, facilitating farmer access to credit, improving export marketing and increasing investment in domestic agro-food industries;
- (iv) strengthening of agricultural research.

Strategies aimed at achieving these objectives included:

1. the restructuring of the Ministry of Agriculture and strengthen the INARA;
2. the development of the institutional, legal and technical mechanisms for a more effective and transparent land market in compliance with environmental norms and procedures;
3. the identification, through the INARA, for ways of allocating part of state lands for cultivation by peasants.

Land reform continues to be particularly important for agricultural development in Haiti. The major characteristics of the land tenure and distribution system in Haiti include:

- unequal distribution of higher-quality and irrigated land, with the existing large estates confined to the irrigated plain areas;
- most farmers own at least some land, with average farm sizes between 1.0 and 1.5 hectares;
- most farms consist of several, generally non-contiguous plots, with an average of three plots each measuring less than 0.5 hectare;
- at least fifteen different modes of land tenure actually practiced in rural Haiti reflecting different degrees of security and access;
- mixed pattern of land tenure with most farmers engaging simultaneously and/or consecutively in several types of tenure.

Reform in the land tenure and distribution system was critical in order to enhance land security, peasant access to land, as well as increasing the involvement of users in water management systems. In order to improve the efficiency of developmental efforts in the rural agricultural sector, the National Institute for Agrarian Reform (INARA, Institut National Pour la Reforme Agraire), was established in April 1995. Through the INARA, the single largest constraint to the agricultural sector, i.e., the uneven land tenure and distribution system, was to be effectively addressed and resolved.

Apart from the MARNDR and the INARA, in the post-1986 period, there was an enormous increase in grass-roots organizations, "groupements". The main purpose of these groups was the mobilization of their communities in order to enhance access to development assistance for community-based projects. Sources of such assistance were through appeals to foreign and national NGOs, the Ministry of Agriculture, or through simply self-help community projects. In the 1991-1995 period, most rural communities were served by grass-roots organizations of varying organization and sophistication. Generally, these groups function more and more as the main facilitators of the various development interventions taking place in the country.

NGOs have, in general, been particularly strong in Haiti. In fact, the Haitian NGOs benefited from an increasing share of donor development funds in the 1980s. With the exception of some coffee cooperatives in the 1970s, and the Agricultural Producers Association (APA), during the 1987-1991 period, NGO activity went beyond involvement in the agricultural sector. With the unstable political environment of the post-1991 period, many NGOs, cooperatives and farmer associations were forced to maintain relatively low profiles.

The Haitian agri-food private sector includes a heterogenous peasantry and the commercial sector which is involved in all functional areas for most commodities. The differences in the Haitian peasantry are reflected in the highly

differentiated relationship to the market, patterns of land holding, and varied cropping strategies. The wealthier peasant families tended to be oriented towards perennial and export crop productions, due to their access to capital inputs. The typical Haitian peasant has been described as...

".. neither a classic subsistence producer, nor the marketer of a true surplus. Rather he is a deficit producer and a marketer for subsistence goals. Paradoxically, the poorer the peasant, the higher the proportion of his on-farm produce sold at market. This inverse relationship holds at least within the lower and middle strata of the peasantry, until the true surplus producer emerges in the upper reaches of rural society".

For the peasant majority, land represented the pivotal factor of production, the primary source of livelihood and the most significant form of investment, particularly in terms of gaining access to labor and capital resources. With a large percentage of small farmers living on the very margins of survival, peasant farming was strongly oriented to minimizing risk than to maximizing production. The risk factor encouraged a diversity of holdings and tenure arrangements on small plots, in order to spread the risk within a single peasant farm unit. This also explained the myriad sources of income to be found in any given peasant household (such as from day labor, seasonal migration, to artisanal craft production, charcoal production and fishing where possible).

Haiti's medium and large business have historically had a strong and direct influence on policy decision making. This class of entrepreneur dominated post-production functions for most, if not all, export crops and some commodity sub-sectors, such as rice, tomato, broiler and fryers and more recently, coffee. In fact, it was the formal sector which provided the link between the informal production sector and international markets.

The informal farming community (the peasant farmers), have very little links to, and very little influence on, the policy formulation and planning decision-making process. They, however, dominate pre-production (land

preparation), production and harvest operations. The individual farmers tend to be less involved in produce transportation, processing, distribution and marketing. This lack of involvement in the various distribution functions, coupled with the absolute lack of on-farm storage for produce, have resulted in most farmers in Haiti becoming net consumers of food.

Production Structure

Like most other Caribbean countries, the agricultural system in Haiti, in terms of both production and marketing, is characterised by a dual structure, defined in terms of the domestic and export market. The major agricultural commodities are also classified according to the farming system: i.e., either inter-cropping or monoculture production systems. Inter-cropping, dominated by corn, sorghum, beans, pigeon peas, sweet potatoes, cassava, millet, plantain, coffee, cocoa, accounted for approximately 30% of total cultivated area in 1995 (Table 3).

Table 3: Haiti, Total Land Use by Category,

Land Use, ha.	Second Season 1995	
	National Level	% of total
Inter-cropping	832,299	29.99
Monoculture	557,202	20.08
Idle cropland	454,389	16.37
Non-cultivated land	234,817	8.46
Scrub forest	157,304	5.67
Tree Crops	127,864	4.61
Broadleaf woodlands	92,458	3.33
Highly eroded woodlands	82,551	2.97
Pastures	58,051	2.09
Desert/Sparse/Wasteland	48,002	1.73
Other farm land (building)	40,690	1.47
Mixed woodlands	9,044	0.33
Total land in survey	2,694,672	97.11
Strata not sampled	80,328	2.89
Total Land In Haiti	2,775,000	

Source: IFSIS Working Papers, Volume I, No.3, August 1996

Inter-cropping systems, with corn at the centre, was the most common and accounted for 12% of the total cultivated area in 1995. Sorghum, corn, beans, sweet potatoes and cassava were also cultivated in pure stand. Crops, such as, peanuts, rice, sugarcane, vegetables and yams are also cultivated by most of the peasantry. The monocultural production system accounted for 20% of total production, with sorghum, the highest at 5.8%.

At the turn of the 1980s, the traditional food crops of corn, sorghum, beans and sugarcane dominated agricultural production and accounted for over 90% of the acreage and agricultural income. Total cultivated area under tobacco declined significantly since the 1980s. However, tobacco continued to be important in terms of foreign exchange earnings. Prior to the embargo, the cigarette factory represented the single largest source of tax revenue and domestic production accounted for 30-35% of the factory's raw material supplies.

There are no functional marketing boards in Haiti, with almost all the distribution activities undertaken by the private sector. As indicated earlier, the domestic marketing arrangements

tend to be dominated by literally thousands of rural Haitian women, at all levels. There have been some efforts towards the formation of rural community associations or Federations, for the major export crops of coffee and cocoa. However, these efforts have achieved limited success.

Within recent times, there was limited activity regarding the rehabilitation of market places of market circuits in the 1990s. Only for the coffee industry, are the export market channels more developed. These channels consist of a few export houses and speculators. While other export crops have a similar system, there was much wider participation of middlemen and speculators.

Agriculture in Haiti - Performance Indicators, 1991-1995

Socioeconomic Performance

There have been considerable efforts at improving the lot of Haitian farmers over the years. Most of these efforts were focused on intensive extension activities to provide local producers with improved production and farm management techniques. However, the steady decline in agricultural production since the 1970s, continued. This situation was partly a result of adverse weather conditions, such as the severe droughts which occurred in 1991 and 1992, low and declining productivity and competitiveness. The debilitating effects of the political crisis of the 1991-1994 period also played a major role in constraining recovery in the agricultural sector.

Between 1991-1994, the combined crop and livestock sector experienced real declines of 1.8%. The combined fisheries & forestry sector, on the other hand, reported positive growth of 1.6% annual growth. (Table 4).⁴ The poor performance of crop and livestock agriculture relative to fisheries & forestry, was attributed to low commodity prices, particularly for coffee harvesting and sisal processors, and the adverse impacts of the trade embargo. It was

⁴ The Forestry and Fish sub-sector includes mining which is based on largely un-exploited reserves of gold, coal, calcium, marble and chalk.

estimated that the agricultural sector suffered high losses as a consequence of input shortages and marketing problems.

Table 4
: Haiti, Sub-Sectoral Growth (%) of Agriculture

@ 1976 prices	1991	1992	1993	1994	1995*
Agriculture	-0.2	-2.0	-3.0	-2.0	0.5
Forest, Fish, Mining	0.1	3.5	-0.5	10.4	3.0
Food Processing	-2.5	-17.1	-6.2	-20.0	4.5
Beverage Processing	-5.9	-6.5	10.3	-30.0	5.0
Tobacco Industries	-4.6	-19.9	3.6	-30.0	4.0

Source: IMF Document, SM/96 252, Statistical Annex

For the crop & livestock sub-sector, growth of 0.5% in 1995, though very low, represented a break in the declining trend set in the 1970s. The agro-industrial sector (food, beverage and tobacco processing) declined by 10% per annum between 1991-1994. However, relatively high growth was achieved in 1995. The recovery in the overall agri-food sector (primary production and processing) in 1995, was largely attributed to political stability, the ERP and the subsequent lifting of the trade embargo and resumption of agricultural exports.

Between 1991-1994, both the income-generating and food supply capacity of the agricultural sector were significantly reduced. This resulted from the virtual closure of the

agricultural export sub-sector following the trade embargo, devaluation, and the consequent inflation in input price level, including wage labour, milling, marketing and transportation costs. Given the reduction in export production and the difficulties experienced in domestic food production Haiti's net-food importing status increased and the country sustained chronic deficits on its agricultural trade balance. Consequently, the country's dependence on food aid from the industrialised countries increased over the period.

Food purchases, estimated at 62% of total expenditure, constituted the single largest category of expenditures, particularly for rural Haitian households. The comparable estimate for urban households was 40%. Although the bulk of domestic food production occurred within the peasant farming community in rural areas, these producers are neither food secure nor food self-sufficient⁵. This situation was due mainly to extreme poverty levels of many rural families which force them to sell and then buy back the greater portion of their food production. The status of many of the peasantry was exacerbated during the embargo period, when the prices of basic food items increased (Table 5). Given the tendency of both rural and urban Haitians to buy food and the increasing share of commercial food imports in total food supply, it may be safe to conclude that Haiti has very low levels of food self-sufficiency and food security.

Food imports, both commercial and through food aid, maintained an high and increasing share of Haiti's food energy requirements before and during the period of the embargo. In the pre-1990 period, food imports climbed from US\$16M in 1970 to US\$75M in the early 1980s, comprised mostly of wheat and edible fats under the US PL-480 arrangement. In 1995, out of the total food available in Haiti, 60% was obtained through from trade, of which 52% were commercial imports and a mere 8% in food aid. This import percentage represented a total volume 744,510mt of food

⁵ Food self-sufficiency is defined as the availability of sufficient food which ensures a good nutritional status of the population.

items, comprised mainly of flour, rice, sugar, oil and to a lesser extent, beans and maize, fish and poultry.

Table 5
Haiti, Price Movements of Basic Food Items

Gourdes/lb	1991	1992	1993	1994	1995
corn	1.2	1.3	1.3	2.3	2.5
sorghum	1.0	1.3	1.2	2.2	2.6
beans	2.3	2.3	2.8	5.5	5.3
rice: domestic	1.9	2.3	2.2	4.2	5.8
imported	1.6	2.2	2.2	3.7	3.7
chicken	7.5	8.8	12.4	18.1	19.6
eggs (pack of 3)	2.1	2.5	3.2	3.6	4.5
fish	7.1	8.3	12.2	17.5	20.3
charcoal (60kg bag)	25.9	30.2	30.0	48.7	84.4

Source: IMF Document, SM/96 252. Statistical Annex

Trade data for the 1991-1995 period indicate a sharp, 58% increase in food imports in 1992. The level of food imports remained high during 1993, before declining just as sharply, by 53% in 1994. By 1995, however, with the lifting of the trade embargo, expenditures on food imports returned to the 1992/93 level, of roughly US\$150m (Table 6).

Table 6:
Haiti, Total and Agricultural Trade⁶

US\$M	1991	1992	1993	1994	1995
Total Exports	202	76	82	57	85
Agric. Exports ¹	27	15	12	12	28
Total Imports	527	278	346	183	481
Food	84	132	144	67	149

¹. Coffee, sisal, sugar, cocoa, essential oils

Source: IMF Document, SM/96 252. Statistical Annex

Total and food imports declined in the period immediately following the embargo. The 118% increase in food imports in 1995 was almost exclusively the result of the lifting of the trade embargo. The increase in the food imports category was third only to machines and transport (1,135% increase) and raw material (808% increase).

Traditional agricultural exports (coffee, cocoa, sugar, essential oils and sisal), accounted for approximately 20% of total exports from Haiti between 1991-1995. Following the trade embargo in 1991, traditional crop export earnings fell from US\$27 million that year, to

⁶ Data prepared by the Economic & Social Data Service, PPC/CDIE/DI, IMF Direction of Trade Statistics reports higher figures for total exports and imports.

an average of US\$13 million between 1992-1994. The 133% growth in traditional agricultural exports in 1995 was primarily due to the resumption of trade with the US. Excluding the year 1995, agricultural exports declined by approximately 16% per annum between 1991-1994.

Commodity and Sub-Sector Performance

Notwithstanding the inadequacies of the data collection system, data for the early-1980s provide an indication as to whether the level of production under the review period was "normal" or reflective of adverse factors outside the control of the agricultural sector.

Export Sub-Sector

☐ Coffee

For decades, coffee has been one of the most important crops produced in Haiti. This importance derived from its significance in terms of contribution to foreign exchange earnings and rural employment, as well as to the crops favourable impact on the environment. An estimated 250,000 farmers grow coffee, with the industry providing direct and indirect employment to approximately 2.4 million people. The 1991 estimated coffee acreage was 135,000ha, accounting for some 54% of the total area under permanent vegetative cover (i.e., 9% of the country's total land area). In terms of actual surface area, the cultivated coffee "forest" has become even more ecologically important than the natural forest. Since 1991, however, coffee forests have declined due to the conversion of coffee holdings into more lucrative forms of agricultural production, as well as the use of coffee trees for charcoal. This trend was directly related to the difficulties experienced in the coffee industry in the post-1991 period.

Coffee production is geared towards the traditional export markets of Italy, Belgium and France. Prior to 1991, these countries accounted for a 75% market share of Haitian total coffee exports. Other important export markets included Japan, whose market share averaged between 5% - 9%, and the US, whose market share increased from under 1% in 1989 to 4% in 1990.

According to Table 7, coffee production declined from an average of 35,000mt in the early 1980s and 1990s to less than 20,000mt between 1993-1993. In addition to the decline in international coffee prices from 1983, the debilitating effects of the trade embargo contributed to a continuation of this trend in the post-1992 period.

Table 7:

Haiti, Production and Export of Coffee, '000mt					
	1980	1981	1982	1983	1984
production 000 mt	42.9	33.2	32.3	36.0	37.3
'000 mt	1991	1992	1993	1994	1995
production	36.9	36.7	27.4	21.3	17.6
exports	10.5	8.6	8.2	6.5	9.0
exports US\$M)	16.28	10.21	8.46	7.72	14.11

Sources: 1980-84 EIU "The New Caribbean Deal" Special report No. 240, March 1986; 1991-1995; IMF Document, SM/96 252. Statistical Annex

The bulk of Haitian coffee was exported to countries which were not involved in the US trade embargo. However, the impacts of the embargo, in terms of escalating fuel and freight costs, adversely affected the viability of coffee production and export marketing. High fuel prices and periodic shortages led to higher internal transportation costs and consequently, to a reduction in the volume of cocoa beans marketed. In mid-1992, traditional export arrangements were also disrupted due to the unwillingness of French shipping lines to carry Haitian products. Alternative transportation arrangements with Russian vessels proved unreliable, due to the irregularity of shipping schedules. The need to re-route coffee shipments directly to Europe, rather than through Jamaica, also increased the cost of marketing. A portion of these additional costs was passed on the producers, negatively affecting coffee harvesting. This situation, in large measure explained the 15% per annum decline in the volume of coffee exports between 1991-1994.

Trade data indicate that coffee export volumes fell from an average of 17.7mt/annum between 1987-1988, to 13.5mt in 1988/89, to 11.3mt in 1989/90 and 10.9mt in 1990/91. This decline was more rapid between 1987-1989, where 23% less coffee was exported for the

1988/89 season compared to a decline of 4% in total exports in 1990/91 from 1989/90.⁷

Since the 1980s, Haiti has been engaged in fairly intensive efforts aimed at revitalising the coffee industry. These efforts were assisted by the implementation of the USAID-financed, IICA-executed, Coffee Revitalisation Project in 1991. The overall objectives of the various coffee projects implemented over the period, included, the introduction of improved *Arabica* coffee varieties (such as *Arabica catimora* and *cattura*), the introduction of measures to improve production and farm-level processing productivity, as well as the identification of new market opportunities, particularly the higher priced gourmet coffee markets.

In 1996, market promotional activities undertaken by the above mentioned USAID/IICA project were successful in gaining acceptance of Haiti's gourmet coffee (trademarked "Haitian Bleu"). The result was a five-year contract between a group of five US regional roaster/distributors and the Federation de Caféières Natives (FACN) which offered a preferential price of US\$2/lb. This price represented a 100% increase over previous local prices for coffee in these two producing zones. It was anticipated that the successful penetration of the US gourmet coffee niche market will lead to a substantial recovery in the Haitian coffee industry. To date, 76, 225 tons (168,000 lbs) of gourmet coffee was sold to the US with a projected 54,446 tons (120,000 lbs) for the 1996/97 season.

□ Cocoa

In terms of production volumes and foreign exchange earnings, cocoa is of less economic significance than coffee. According to Table 8, the production volumes in Haiti averaged less than 5,000mt per annum. While cocoa production has been maintained at approximately 4.8 tons per annum between 1991-1995, export volumes have been highly variable. This variability derived mainly from

the high fluctuations in international cocoa prices and the tendency to stock cocoa beans in response to periodic low price levels.

Table 8,
Haiti Production and Export of Cocoa

	1980	1981	1982	1983	1984
Production, 000mt	3.4	2.3	4.5	4.6	4.7
Exports	1991	1992	1993	1994	1995
production, 000mt	5.0	4.9	4.8	4.8	4.8
exports, 000mt	1.4	2.9	3.0	1.8	3.4
exports US\$M	1.16	2.18	1.71	0.97	1.95

Source: 1980-84 EIU "The New Caribbean Deal" Special report No. 240, March 1986; 1991-1995, IMF Document, SM/96 252. Statistical Annex

The bulk of Haitian cocoa was exported to Germany. Cocoa exports are undertaken by a large number of associations/cooperatives, 11 of which were established in the mid-1980s. Approximately 4,000 cocoa producers are represented by these 11 cooperatives. The Mennonite Economic Development Association (MEDA), which functioned as the umbrella organisation, controlled 18% of the cocoa export market between 1984-1988/89, of which 80% was exported to the US and 10% to Canada. The balance was exported to the French Antilles. With the closure of the US and Canadian market following the embargo, only two of the MEDA cooperatives continued to function, with the majority of the remaining producers reverting to business with the middlemen.

□ Sisal

In the absence of production data, export data are used as indicators of performance of the sisal industry. Information indicates that in the 1980s, sisal was a leading export commodity. Sisal and products, ranked as the third most important export, to coffee and mango, earning on average, US\$5 million. Prior to 1990, sisal production was estimated to employ over 100,000 persons. According to Table 9 however, sisal and sisal string exports declined in the post-1991 period. By early 1992, the majority of the primary processing plants in the southern part of Haiti had either ceased or greatly reduced the scale of operations. This was due, in part, to a 50% reduction in international prices and the virtual closure of the trade sub-sector. The resumption of trade

⁷ Coffee beans are exported in 60kgs bags. For this report, this unit was converted into metric ton equivalents. The coffee season varies: at lower altitudes, from August to December, for higher altitudes, from November to April.

with the US in late-1994 may have played a leading role in the recovery in sisal exports in 1995.

Table 9,
Haiti, Sisal and Sisal String Exports,

	1991	1992	1993	1994	1995
'000nt	6.16	4.00	3.30	2.54	3.43
US\$M	4.12	1.70	1.44	1.08	4.82

IMF Document, SM/96 252. Statistical Annex

□ Essential Oils

The essential oil industry is based on veviter, lime and amyris oils. The industry has been in decline since the early-1980s and efforts to revitalise production and processing have achieved limited success. Production levels generally declined since the mid-1980s. The decline resulted in part, from higher processing costs due to the escalating fuel prices.

Europe was the primary market for veviter and amyris oils exports, with lime oil exported to the US. Europe was not a participant in the trade embargo. However, as was the case with coffee exports, rising fuel prices, severely constrained oil extraction and processing activities, particularly in the veviter and amyris oil industries. Exports of lime oil virtually ceased during the embargo. This largely explains the severe contraction in essential oils export volume and value between 1992-1993.

Throughout the period of the embargo, a sole lime oil processor continued with the production and distribution of lime seedlings to growers and accumulated significant stock of lime oil. The sale of the stock in the US market after the trade embargo was lifted in late 1994 explains the 700% increase in total essential oil export volumes, and the 505% increase in export earnings in 1994.(Table 10). The re-opening of the US market, and the availability of high stocks, also facilitated further recovery in essential oil exports in the post-1994 period. The veviter industry in particular, expanded from a total of 8 processing and exporting centres in 1993 to 14 such centres in 1996. In 1996, these 14 centres produced approximately 75mt of veviter oil.

Table 10,
Haiti Essential Oil Exports,

	1991	1992	1993	1994	1995
'000nt	0.08	0.02	0.01	0.08	0.23
US\$M	2.40	0.58	0.37	2.24	7.24

IMF Document, SM/96 252. Statistical Annex.

□ Mango

Mango, has traditionally been an important agricultural export for Haiti, with the primary market being the US. Prior to the embargo, Haitian mango exports competed successfully with Mexican mangos on the US market. A factor contributing to this competitiveness was the longer (10-month) harvesting period of the main variety, the *Fransik* (or *Madam Francis*). Mexican mangoes are harvest during a relatively shorter period of 4 months.

Consequently, from the mid-1980s, the US became a significant importer of the Haitian *Fransik* mango. By 1989, mango had become the second most valuable export crop from Haiti. In the absence of production data for mango, export data indicate an increase in mango export values from US\$3.9M in 1985 to US\$5.2M in 1991. Since the US was the major trade partner for mango exports, the effects of the embargo on the Haitian mango industry were very pronounced. This was evidenced by the almost 100% decline in the volume of mango exports to the US in the immediate post-embargo period (1992) Table 11).

Table 11:
Haiti, Mango Exports to the US,

	Exports,, mt
1989	8,340
1990	7,809
1991	13,438
1992	277
1993	7,130
1994	2,742
1995	9,951

Source: Tropical Produce Marketing News, April, May, 1996

During the period of the embargo, Haiti lost considerable market share in the US. US firms resorted to alternative regions for supplies. The significant loss of market share and deteriorating economic conditions in Haiti in the 1990s, forced a situation where mango tree cutting (including the widespread destruction

of local varieties) for the production of plank wood and/or charcoal increased. This severely reduced Haiti's mango production capacity, thus slowing the pace of industry recovery in the post-embargo period.

The export of pickled mango to Europe and the introduction of alternative uses for mango on the domestic market, such as boiled green mango (which became a staple food source of the poor), allowed mango producers to derive substantial income from increased domestic sales.

□ *Sugarcane*

Sugarcane production and sugar exports hold great historical significance in Haiti. Sugar production experienced difficulties in the 1980s, and has since declined following the closure of all four sugarcane mills in 1991. Following their closure, a significant volume of sugarcane was converted into alcohol and brown sugar production for domestic consumption. Table 12 provides an indication of the decline in sugarcane export volumes over the 1991-1995 period.

Table 12:
Haiti, Sugarcane Export Volumes, '000mt

	1991	1992	1993	1994	1995
Sugarcane	5,985	5,834	1,179	849	526

IMF Document, SM/96 252. Statistical Annex.

Other crops traditionally grown in Haiti included, citrus (lime, orange, grapefruit, mandarin), coconut and avocado. Practically all output of the other traditional crop is consumed domestically. Coconut in particular, has been used mainly as relatively inexpensive a source of oil and protein.

Domestic Food Production

Food Crops

In Haiti, food production is a primary means of income generation for the peasantry. Sale of food crops remains an important source of income to enable purchases of basic food and other items

The Haitian peasant farming class produces a wide range of roots and tubers, bananas and plantains, grains (rice, maize and sorghum) and pulses and vegetables. In terms of

production volumes and profitability per acre, plantain appears to be the most significant. The crop is widely cultivated and considered among the most profitable food crops for the Haitian peasantry. Plantain is also well suited to the development of environmentally appropriate agro-forestry systems. While most farmers cultivate plantain using traditional basic production techniques, a considerable portion is produced commercially, under both fertilised and irrigated conditions.

Field bean (red and black) represents the most important pulse crop in Haiti. Production is concentrated in the mountainous regions. In terms of cultivated surface area, in 1991, field beans ranked fifth behind maize, sorghum, coffee and sugarcane. Pigeon pea also provides a major source of protein for Haiti's population as well as an important source of revenue for farmers. Sorghum is also one of the principle foods consumed by low income families. Roots and tubers, including yams, sweet and white potato, cassava or manioc, are grown under a variety of conditions and constitute an important staple food (starch) source in Haiti. Virtually every farm grows one or more of root crop for both home consumption and as an income earner.

In 1992, there was a substantial shift towards planting of sweet potato instead of rice and corn in some areas, with cassava replacing some plantain cultivation in other areas. This pattern of crop substitution may have been in response to the relatively lower cost of planting material and/or maintenance required for roots and tubers, compared to the replaced crops. The embargo led to difficulties in maintaining production, due to shortages of and/or lack of access to inputs (seeds and fertiliser), and the inability to maintain irrigation equipment and systems (due to high fuel prices and lack of spare parts). Low yields, due to insufficient application of fertiliser and other agro-chemicals, as well as poor water management, resulted in annual variations in output.

Production data of most of the domestic food crops suggest little change activity following the embargo (1991-1992). There were mixed

performances, however, in the post-1992 period. It was estimated, that production of root crops tended to increase, due to the relatively lower cost of planting material and maintenance requirements compared to grain production. The slight decline in sorghum production in 1992 was also attributable to drought conditions (Table 13). For maize, a comparison of production data in the 1980s suggests that the level of production remained relatively constant throughout the 1990s. Approximately 30% of marketed sorghum and maize are used in the livestock feeds industry, particularly for the production of poultry feed.

Table 13 Haiti Production of Main Domestic Food Crops

'000 mt	1991	1992	1993	1994	1995P
corn	196.8	196.0	226.3	189.5	181.7
sorghum	129.8	128.3	192.6	148.2	155.0
rice	128.3	125.7	115.7	99.9	88.7
beans	95.5	93.8	92.8	73.1	71.1
bananas /plantain	50.9	51.9	50.8	36.2	31.9

IMF Document, SM/96 252. Statistical Annex.

Following a consistent level of output between 1991-1993, of approximately 90 tons per year since the 1980s, bean production declined in 1994 and 1995. This decline was attributed to a reduction in cultivated area, due, in part to the inability to make seed purchases. Seed was the single most costly item for bean production. High post-harvest losses due to unseasonable high rainfall also contributed to the decline in bean production. Rice production also declined as a result of a steady reduction in cultivated area, a trend which continued up to the end of the period. The emergence of a lucrative contraband trade in rice was also a strong disincentive to domestic rice production. Imported rice, estimated to meet 40% of domestic requirements, was relatively less expensive to purchase. Rice, as a basic and cheap source of food, was selectively excluded from the trade embargo.

Vegetables, including onion, carrots, cabbage, tomatoes, eggplant, lettuce and beets were grown primarily as cash crops rather than for home consumption. Consequently, the production centres were situated close to major populated areas, at favourable high elevation settings or located within the irrigation perimeters. Vegetable production was hard hit by the embargo. Shortages of seeds led to

declines in output. The decline in the outputs of the tomato processing industry led to a decline in the US market share for that product. Cucumber and cayenne pepper exports to the US suffered similar fates. According to the Haiti Agricultural Assessment undertaken by IICA, total availability of seeds for the six most commonly planted vegetables in March 1992 was 1,022lbs (1,000 of for carrot seeds, 22lbs for cabbage, none for onion, tomato, lettuce or beet). The normal supply was 65,300lbs. Vegetable production in 1995 was estimated at 40,000 tons and was not supplemented by vegetable imports.

Table 14 provides an indication of yield of the main food crops in the first season of 1995.

Table 13
Haiti, Major Crop Yields and Production,
1995 First Season

Crop, metric tons	Production	Corn equivalent
Corn	193,616	
Rice	85,816	86,316
Sorghum	56,879	54,052
Beans	44,777	41,843
Banana & Plantain	678,251	134,445
Sweet Potatoes	51,624	13,873
Cassava	166,667	50,204

Source: IFSIS, Volume I, No.4, September 1996.

□ Livestock Production

Livestock production involved the traditional rearing of pigs, cattle and poultry, sheep and goats. During the early 1980s, the total volume of meat produced in Haiti, (beef, pork, chicken and goat meat), increased from 48,000 tons in 1980 to 92,300 tons in 1983. Of the 1983 total, pork production accounted for over 40%. By 1995, total meat production, including mutton and lamb and excluding chicken, had declined to 29,740 tons (Table 15) This volume represented a mere 32% of total meat production in 1983.

Table 15: Haiti, Meat Production, 1995

Meats:	Tons
Beef	24,000
Goat	3,500
Pork	1,800
Mutton/Lamb	440

Source: Saint-Dic, Roosevelt, *Situation de la production agricole, 1996*. UNFAO, December 1996.

In 1995, however, beef production has replaced pork as the most significant meat produced. Beef accounted for an 80% share of total meat production in 1995. Goat meat was the second most important meat produced in Haiti in 1995. The relatively larger cattle herd size, estimated at 1 million head, explained why beef production dominated total output in the livestock sub-sector. In 1995, there was an estimated 1.2 million heads of goat, 0.7 million heads of pigs and 0.4 million heads of sheep.

With regard to the poultry (broiler and eggs) industry, Government officials reported a substantial decline in both egg and poultry production between September 1991 and July 1992. This decline may be explained by the virtual closure of all commercial poultry operations at the end of 1991 due to the unavailability of fertile eggs and the increased costs of protein feed concentrates. In addition, chicken imports from Holland (which was not involved in the embargo) were still available at pre-crisis prices. These imports therefore, represented a formidable source of competition for the remaining domestic poultry producers. In 1995, out of a total supply of chicken and poultry meat in Haiti, 62% were obtained from imports. The shortage of eggs from the traditional US sources and the Dominican Republic, however, stimulated the expansion of the domestic egg production sector. Consequently, in 1995, local production satisfied approximately 90% of total egg supply in Haiti.

There was also a general reduction in the heads of livestock during the embargo period. This was largely due to sale of stock to provide the means for purchasing food and other basic commodities, to pay for agricultural labour as well as other necessary expenditures. Much of the livestock owned by the poor peasant farmers was bought over at low prices by their wealthier counterparts.

□ *Fish*

Fishing is an important economic activity in Haiti. The fisheries and aquaculture sub-sector exploits both the coastal marine and limited natural and man-made fresh water resources. Given the "free" nature of the fisheries

resources and the increased prices of most other meat products, the deteriorating economic and social conditions encouraged an acceleration in the exploitation of coastal and inland fisheries. Because of its very low reliance on fuel powered boats, the effect of the embargo on the domestic fishery sub-sector was very limited. However, since the majority of fishermen employed rudimentary fishing techniques, such as, precarious boats, beach seines and fish traps. Therefore, the artisanal fishery sub-sector remained highly inefficient, and the volumes of fish landed, relatively low.

Fish landings were estimated at 5,000 tons per annum, well below the FAO calculation of a sustainable yield of 12,000-14,000 tons per annum. In 1995 over 70% of fish requirements (20,000mt) were covered by imports. Canada represented the major source of fish imports, supplying an estimated 12,000 tons per year. Although Canada was an advocate of the embargo, that country did not suspend fish exports to Haiti.

Prior to the embargo, several large aquaculture enterprises produced fresh water shrimp for export to the US. Following the suspension of trade between the US and Haiti, aquaculture activities shifted to the production of tilapia and carp for the domestic market. In 1993, two private farms were under construction with the goal of exporting salt-water shrimp.

The export of seafood, mainly live and frozen lobsters, shrimp, conch and other shell fish resumed in 1996. In 1996, an estimated 220mt of lobsters were exported compared to only 195mt in 1995. This represented a 13% growth in shell fish exports from Haiti in 1996.

□ *Agro-processing*

Agro-processing centred around rice, lime, veviter and amyris oil processing, brown sugar, tobacco and cigarettes, alcoholic beverage and sisal string production. With the exception of rice and brown sugar and to some extent cigarettes and alcoholic beverages, most of the output was geared for exports. The Animal feeds, from corn and sorghum, were also produced.

In the 1980s, the focus of agro-industrial development shifted towards import replacement. This strategy encouraged the production of sugar, cotton, cigarettes, tomato processing, cooking oil, soap and detergents, soft drinks and flour for domestic consumption. Production catered largely to the needs of the very narrow, high income bracket of the population. Due to this feature, the agro-industrial sub-sector has traditionally been less dynamic than the export sub-sector. Consequently, from the mid-1980s, with the notable exception of flour, production of all other domestic agro-industrial goods declined.

The decline in Haiti's agro-industrial sub-sector was attributed to a combination of rising costs, transportation difficulties, high prices and unavailability of raw materials locally. To some extent, some of these constraints derived from the monopolistic or oligopolistic structure of many agro-industries, particularly sugar and flour processing. This situation encouraged the upsurge in contraband trade, particularly with the Dominican Republic, resulting in a decline in the demand for domestically produced commodities.

In 1989, there was an estimated 150 medium and large scale agri-businesses, producing a range of commodities, both for the domestic market and for export (Table 16). Over half of the agro-enterprises were directly engaged in production activities, with some also involved in pre-production and post-harvesting handling.

Table 16: Haiti, Medium & Large Scale Agri-Business, 1989

Commodity/Function	Number
Cocoa & Coffee	17
Essential Oils & Spices	15
Input Sales and Distribution	14
Agro-processing	13
Livestock (Cattle, Goats, Swine)	13
Food Crops	12
Fruits and Vegetables	10
Sugarcane	10
Mango & other Exotics	10
Poultry Production	9
Flowers & Ornamental Plants	9
Consulting Services	8
Aquaculture and Fisheries	4
Sisal	3
Tobacco	3

Source: Haiti Agricultural Sector Analysis, IICA, 1993

Since then, there have been few changes in the structure of the agro-industrial sector. In 1993, the number of agro-industries was estimated at between 125-175. A few large businesses have developed into well integrated operations. However, the agro-industrial sector in general, continued to be highly competitive, albeit very disorganised sector. The structural constraints of the mid-1980s were exacerbated in the 1990s as a result of embargo-induced increases in processing costs. Rising fuel prices forced many factories to either significantly reduce scale or cease operations. Such was the experience in the flour industry, resulting in the closure of operations in 1992. As a result the level of agro-industrial activity contracted significantly between 1991-1994. By 1996 alcohol production had also declined, due to competition from imported alcohol and the closure of three sugar mills which were the main sources of raw material.

□ Forestry

Forestry activities are concentrated on the production of charcoal and pole wood. This activity increased significantly in response to the severe lack of fuel occasioned by the trade embargo. Wood cutting for charcoal, thus became a leading agri-business activity in Haiti over the last 15 years. Consequently, only about 4% of Haiti's land surface remains forested.

Agricultural Diversification

Between the late-1960s and early-1970s, various experimental attempts were made to expand non-traditional crop production. Many of these efforts were based on collective farming systems approach. These early efforts at agricultural diversification achieved limited success, due in part, to crop failures and changing government trade policies.

Attempts at market diversification have also been limited, both in scope and success. Haiti's trading partners continue to be concentrated in the industrialised countries. Prior to the embargo, Haiti maintained relatively open trade policies. Traditional market ties were based on a French-Haitian trade agreement dating from 1959, which provided access to imported French commodities (mainly food,

wine and luxury consumer goods) at lower rates of tariff. In addition, products with 40% Haitian value-added (textiles and leather good excluded) also enjoyed privileged access to the Canadian market. The country's textile and light assembly manufactures also benefited under the US-Haiti textile agreement and the CBI.

In the mid-1980s, Haiti reviewed its agro-investment code in order to take advantage of the opportunities offered to foreign investors, under the CBI. Foreign investment was particularly encouraged in the production of out-of-season exotic fruits (including mango) and vegetables. Market integration efforts with the CARICOM region and also attempts to gain membership in the Lomé Convention, were also unsuccessful.

The coffee industry continues to be Haiti's greatest success in market penetration. As previously indicated, Haitian coffee exports successfully penetrated the gourmet coffee US market. Some success, albeit limited, was also achieved in terms of reforming the domestic market arrangements for export crops. Through the establishment of commodity co-operatives, farmers have been afforded greater involvement and control in the export of their respective commodities.

Constraints to Agricultural Development

In addition to the debilitating effects of the trade embargo, the prolonged decline of Haiti's agricultural sector was attributable to the following chronic problems:

- weak policies;
- inappropriate tenure systems and limited access to land;
- the absence of adequate infrastructure, the neglect of rural infrastructure;
- weak agricultural research and extension services,
- limited access to credit and production inputs among the bulk of the farming population;
- poor purchasing power of markets;
- general under-investment in rural human capital.

The neglect of rural infrastructure was a result of the deteriorating political and economic conditions in Haiti, a factor which was cited as a primary cause for the poor performance of the agricultural sector. The development of simple irrigation systems on most farms in Haiti has been facilitated by the existence of natural water-ways. This natural advantage has been further developed due to the need to more evenly distribute water among the various producing areas. The irrigation system comprised a network primary and secondary constructed canals linking main producing areas to river sources. Government is solely responsible for maintenance of this irrigation network.

Infrastructural development, including irrigation projects, particularly water gravity systems and road rehabilitation was central to the recovery and development of the agricultural sector. Given the limited government resources, much of public sector investment on infrastructure development has relied on donor assistance, mainly the IDB, EU and the German Government (Table 17).

Table 17, Haiti External Assistance to Agriculture,

US\$M	1990		1991		1995	
	value	%	value	%	value	%
Agriculture ¹	33.7	24.3	47.6	34.9	3.9	7.4
Natural Resources	5.8	4.2	9.5	6.9	4.1	0.8

¹ - includes forestry and fisheries
Source: United Nations Development Program.

Infrastructural improvements and integrated agricultural projects, with emphasis on natural resource conservation and food security in upland areas, received development priority from international financial institutions. In 1995, the Haitian government rehabilitated an estimated 61,295 hectares of irrigation systems. Transport infrastructure and improvements to port installations, were also development to facilitate both land and maritime access to coastal cities.

The undeveloped quality of the informal farming community generally constrained the emergence of an efficient agricultural sector.

The main characteristics of the informal community are as follows:

- small units rarely exceeding 4 to 5 workers;
- limited capital outlay, intense competition for very small markets and a lack of diversity;
- extreme intensive utilization of labour and rudimentary technology based on primary resources and local/recycled materials;
- the production of simple products and services targeting a poor clientele, with poor quality, non-standard fabrication and high production costs, generally leading to the lack of market consolidation or expansion;
- a general lack of trained operators who rely on apprenticeship systems for acquiring new skills; an estimated 73% of these workers have had no training whatsoever with limited opportunities for professional training

These characteristics were manifestations of the general under-investment in rural human capital. Such under-investment resulted in extremely low levels of technological utilisation in primary agri-food production, particularly in the domestic food sub-sector (including meat and fish production). Excluding the use of irrigation in grain, vegetable and to some extent, plantain production, cultivation techniques continue to be manual, relying on very basic hand tools, with limited use of agro-chemicals and fertiliser. This also resulted from the inability of most farmers to afford the purchase of tools and other basic equipment. The inability of peasant farmers to invest in new technologies

remains a critical constraint to the long-term development of the agri-food sector.

Difficulties in accessing credit and capital have also discouraged long-term investment in the agricultural enterprise and tended to foster destructive land use practices among the poor peasant farmers. Wealthier peasant families generally have greater access to savings and are more likely to invest in land and livestock, as well as commerce, speculation and money-lending. The share of loan disbursement to agriculture from the commercial banking sector tends to be low and averaged under 2% (or G\$35.8M) per annum between 1991-1995 (Table 18).

Table 18 Haiti Share of Agriculture in Commercial Bank Credit

	1991	1992	1993	1994	1995
Total Credit G\$M ¹	1,499	1,593	2,232	2,610	3,39
Agriculture G\$M	13.3	27.1	42.8	33.1	3
% to Agriculture	0.9	1.7	1.9	1.3	62.9
					1.9

1: excludes loans below G 75,000.

IMF Document, SM/96 252. Statistical Annex.

Financial institutions, either public or private, which provide production credit to small farmers are notably absent in Haiti. Agricultural sector credit is available largely from the partially functional parastatal credit institution, the Bureau de Credit Agricole (BCA). With regards to improving the rural access to credit, the IDA has been involved in an assessment of the viability of rural financing schemes in order to recapitalize small peasants and improve their production capacity.

Agriculture in Haiti - Prospects

International Environment

Towards the year 2000, world agriculture will be increasingly influenced by an acceleration in the pace of globalisation and trade liberalisation. Trade is identified as the driver of this emerging environment. The dynamics of the globalisation and liberalisation have also been extended to agricultural trade, which, prior to 1994, was very heavily regulated by

regional, hemispheric and international agreements. The most significant of these was the 1986-1994 Uruguay Round of negotiations on trade liberalisation.

These negotiations included for the first time, reducing the distortions in trade in agricultural products. These distortions resulted from government intervention and support for

agriculture. The establishment of the World Trade Organisation in January 1995 thus marked the end of an era of protection the agricultural sector. The main WTO Agreements which impact the agricultural sector are summarized below. Developed countries were given a maximum period of six years for implementing commitments (1995-2000); developing countries - ten years (1995 - 2004).⁸

- Agreement on Agriculture: 3 Commitments
Market Access commitments require the conversion of all non-tariff border measures (import quotas), to tariffs which provide the same protection (process called tariffication). Tariffication is to be followed by a reduction in all tariffs by 24%. Provision is also made for the institution of a minimum-access tariff quota, initially set at 3% in 1995, to increase to 5% by 2004.

Countries are, however allowed to include special arrangements in their minimum access commitment and to allocate their minimum access to exporters with special arrangements, such as with the EU and sugar. Special safeguard provisions were also included for tariffied products that will allow additional duties to be applied in cases where shipments priced in domestic currencies fall below a certain trigger or in the case of import surges. This introduces, at least, the possibility of new protective measures being used in agriculture which may represent a weakness of the agreement.

Domestic Support commitments require reductions in the level of expenditures on domestic agricultural support measures which distort genuine trade (called amber box aggregate measures of support (AMS)), by 13.3% between 1995-2004. AMS include acreage payments, certain subsidised loan programmes, input subsidies and price supports.

Export Subsidies commitments require reductions in the value of direct export

subsidies by 21% and in the volume of subsidised exports by 14% between 1995-2004. Developing countries are exempted from commitments on marketing of agricultural exports or internal transport subsidies.

- Sanitary & Phytosanitary (SPS) Agreement
This agreement covers food safety and animal, plant and health regulations. The agreement stipulates that the use of these measures should only be in instances where human, animal or plant life or health is threatened. Although negotiations towards the development of a globally accepted code of standards are still ongoing, Caribbean countries are encouraged to base their national SPS measures on international standards, guidelines and recommendations; higher standards may only be imposed if there is scientific justification.

- Ministerial Decisions
The Decisions on Measures Concerning the possible Negative Effects of the Reform Programme on LDCs and NFIDC seek to ensure that these countries are not disadvantaged in terms of higher food prices. The provision of food aid and basic food stuffs provided in full grant form constitutes the key elements of these Decisions.

The basic objective of agricultural trade liberalisation is to reduce the level of protection which imposed constraints to other potential suppliers of the specific agricultural commodities. The agreements may negatively affect some participants in agricultural trade, particularly the least efficient producers. However, for most, tariff reductions and the elimination of quantitative restrictions may impact positively on their production costs, particularly as the cost of imported inputs are reduced. While lower costs of imported inputs is one element in enhancing commodity competitiveness, other factors, such as increased productivity, improved fruit quality and improved commodity marketing are equally important in producing a cost and quality competitive commodity.

⁸ "The Trading System After the Uruguay Round" John Whalley and Colleen Hamilton, Institute for International Economics, Washington DC, July 1996.

International - Domestic Economy Link

Prior to the trade embargo, Haiti's economy was highly open and dependent on trade. Haiti is emerging from years of economic decline and internal strife and the virtual closing off from the rest of the world. This re-emergence into the international environment has coincided with the rapid pace of globalisation and trade liberalisation of the 1990s.

Haiti's ability to survive in this new environment will depend critically on the rate of the country's integration into the international economy. Since the return to constitutional rule, the main focus has been on restoring macro-economic balance, through sweeping public sector, exchange rate and trade reforms aimed at improving the country's external competitiveness. Comprehensive trade is essential, if Haitian exports is to achieve competitiveness.

Initiatives aimed at improving the trading environment, included the reform of the international trading system, which had already undergone deep-seated changes in 1986/1987. The simplification of this regime was considered an imperative in view of the thriving trade-distorting contraband activity. In early 1991, rice, corn and sorghum were subject to customs duties ranging from 50% to 60% whereas other imported goods were subject to duties of up to 20% on average. In May 1991, import licenses for rice were eliminated and the duty on rice was lowered. Prior to the coup, lower duties and a simplified customs system were being contemplated as part of a series of reforms made possible by the uniform exchange rate.

From 1994, the first phase of trade reform resulted in the elimination of all remaining quantitative restrictions and lowering tariff rates to 10% and tariff dispersion to three rates: 10, 5, and 0%. The longer term objective was to reduce maximum tariff rates further in line with the commitment made by Government at the 1995 Regional Summit Meeting in Miami. The dismantling tariff and non-tariff barriers to trade has significantly lowered the imported component of production costs, thereby

helping to increase competitiveness and opened up new opportunities for exports, both in terms of traditional and non-traditional exports and market.

The agri-food sector, for which considerable donor funds have been committed, will also undergo reforms in order to enhance its ability to contribute significantly to the objective of economic recovery. The support from the international community and the commitment on the part of the Haitian government and people to reform, will allow Haiti to achieve and maintain some level of food self-sufficiency and export capacity. The re-opening of the US market signals favourable prospects for Haitian exports in general, including agri-food exports. The proximity of the Haiti to the US mainland which implies a much reduced freight cost, affords that country a considerable advantage over other Caribbean countries. The existence of a large ethnic market in the US is another factor in Haiti's favour.

Agricultural trade liberalisation, has, however, presented additional challenges whereby only the efficient producer will survive in the long run. Given the peculiar conditions of Haiti, the country is faced with the twin task of increasing productivity and competitiveness of the agricultural sector. For Haiti, in particular, efforts aimed at improving competitiveness, must, however, explicitly include equity considerations. The explicit recognition of the negative impacts on the vulnerable and resource constrained groups will contribute to the design of policies aimed at minimising the adjustment costs.

The prospects for the Haitian agri-food sector will therefore, be conditioned upon the following:

- institutional reform and structural change in Haiti's agriculture, specifically, land tenure reform;
- the rate of reforestation and renewal of land productivity;
- production efficiency;
- the rate of recovery of market share for traditional exports and market penetration for non-traditional exports;

- the orientation of the agri-food sector towards trade within the context of global commodity trends.

Within the WTO membership, Haiti is in a position to take advantage of its least developing country/net-food importing status under the Special and Differential Treatment to LDCs. Within the range of privileges afforded to LDCs under the WTO, it becomes even more important for Haiti to use these provisions in its efforts to revitalise agricultural production, expand its export base, add value to its exports, strengthen its technological capabilities, promote foreign direct investment and ultimately, create competitive advantage. Providing that Haiti maintains a relatively stable political climate, the country is even more fortunate in that the international community, quite apart from the WTO Agreement, appears very willing to assist in its economic recovery.

Commodity Market Trends

☐ *Coffee:*

The five-year (1996-2000) market prospects for a differentiated coffee product from Haiti appear favourable. This is due to the guaranteed purchase contract for "Haitian Bleu" gourmet coffee by a group of five US regional roaster/distributors at a preferential price of US\$2/lb. Outside of this market, the overall trend is towards the consumption of milder Arabica coffees in major importing countries. Opportunities thus also exist for export to Japan, which recently exhibited a strong trend in increased coffee consumption. The rehabilitation efforts in the coffee industry should yield a sufficient production base to meet the requirements of multiple markets.

☐ *Cocoa:*

Unless similar marketing arrangements are made, cocoa exports will continue to be low due to the relatively stagnant demand in traditional markets and the increased competition and product concentration on the world chocolate industry. The tendency is towards the production of more standardised and bulk products for which fine flavoured cocoa is an expensive input. The additional pressure to harmonise the 5% allowance of the

use of Cocoa Butter Equivalents (CBE) in the production of chocolate will also result in a downward pressure on international cocoa prices in spite of continued growth in demand.

☐ *Essential Oils:*

The re-opening of the US market in 1994 and the rapid recovery of essential oils exports (specifically lime oil) suggest that as long as Haiti can remain cost and quality competitive, essential oil exports will be maintained at a level sufficient to assure profitability to processors. The restoration of efficient shipping arrangements for similar shipments to Europe will also result in growth of vetiver and amyris oil exports to these markets.

☐ *Mango:*

Haiti has a comparative advantage in mango production and thus maintained a strong share in the US market. The fact that mango exports to the US increased after the lifting of the embargo implies that opportunities do exist to recapture, maintain and increase US market share for mangoes. Within recent times, mango production and field rehabilitation received increased attention. The continuation of such rehabilitation efforts bodes well for Haiti's capacity to maintain its export market share.

☐ *Food Production*

As indicated, Haiti has a traditionally strong food production base, a feature which to a large extent is dominated by the multitude of small rural peasants. In spite of its strong tradition, domestic food production has been constrained by a number of factors, including inadequate land tenure policies and lack of institutional and infrastructural support. There remains much scope in increasing both the extent and variety of domestic food production through the provision of necessary infrastructure and institutional support system. Similar developmental efforts in the livestock and fisheries sub-sectors will also result in more efficient production in the sector, as well as improve the lot of the peasant class.

Guidelines for Policy Formulation

The Haitian Government has committed to the provisions of the WTO Agreement, including reducing public sector support to agriculture.

Against this background, all actors in the sector are challenged to develop WTO-consistent mechanisms to increase productivity and competitiveness in the sector.

Competitiveness in agriculture can be viewed as a dynamic economic concept inherent to globalisation, that takes into account the need to adjust to the macroeconomic environment, adapt to the astonishing pace of technological innovation and be flexible in terms of the requirements of sustainable and equitable development.

AGRIFORUM - Towards an Agenda for Agriculture in the Americas, DIREXCOM, IICA Headquarters, Costa Rica, August, 1997.

The challenge continues to be one of sustaining efficient traditional crop production while expanding into a more flexible, diverse agriculture. Policy decision making for Caribbean Agriculture should place priority on the following considerations in the design of an agricultural development strategy.

- **An Enabling Policy Environment** which combines new public policy for rural areas with current macro-economic policy to enhance competitiveness. This should include policies which ensure rational spending of public resources on direct works that support the market rather than replace it. This strongly suggests an increased role of the private sector in all dimensions of the agricultural sector.
- **Dynamic and Flexible Support Institutions** through the transformation of the institutional framework. Institutional evolution should be characterised by reform and development of specialist institutions and an integrated and dynamic public and private sector partnership with the capacity to capitalise on strategic and tactical alliances for developing the sector.

This implies the extension of institutional capabilities which enables the development of mechanisms to secure access for local output to mainstream food distribution centres, which consolidates linkages with the hospitality sector, which provides quality-enhancing marketing services (eg. grading and packaging) and

adequate extension and research services for product development.

- **Technology Generation** based on innovations for improved efficiency. Given the human and financial resource constraints, it may be more feasible for Haiti to actively support the establishment and effective operation of a regional or sub-regional research centre for the generation and transfer of appropriate technology. This will be a pre-requisite for achieving and maintaining competitiveness and sustainability of the agricultural sector.
- **Human Resource Development** and the continuous development of the knowledge base will become a fundamental factor of production. Attention must be placed on the provision of high quality and timely education, which takes into account production and social requirements of the sector. Training and investment in human resources, particularly in the rural areas are inextricably linked to the sector modernisation process, competitiveness and equity.

Development of the rural sector, in particular, will be critical to Haiti's economic future. Agriculture, represents an important means of survival for the rural majority in Haiti. The social and economic implications of inappropriate agricultural practices are well documented. The neglect of the rural sector has led to an increase in land fragmentation and agrarian poverty has fostered unsustainable agricultural practices. The cumulative effects have been severe degradation of the physical environment.

Political stability and the deepening of economic and social reforms, will facilitate the balanced development of the agricultural sector in particular, and the Haitian economy in general.



Additional Statistics

Table 1: Origin of Gross Domestic Product (Fiscal Year Ending September 30)

Millions of gourdes @ 1976 prices	1991	1992	1993	1994	1995 ^P
Primary Sector:					
Agriculture	1,413	1,384	1,343	1,316	1,323
Forestry, Fishing, Mining	289	299	298	296	305
Secondary Sector:					
Manufacturing:	663	521	517	345	365
Food	225	187	175	140	146
Beverages	22	21	23	16	17
Tobacco	35	28	29	20	21
Textiles	86	43	52	26	28
Chemicals	37	41	39	31	37
Minerals	32	25	15	13	13
Metals Transformation	160	132	140	70	73
Other	65	45	44	29	30
Construction	321	147	142	107	128
Services Sector:					
Utilities, Transportation,	155	134	123	77	122
Communications	857	514	440	330	363
Commerce	19	14	11	8	9
Restaurants and Hotels	7	6	6	4	5
Financial Institutions	308	293	274	246	251
Housing	611	623	685	720	720
Government	180	175	155	124	128
Other					
Gross Domestic Product at Factor Prices	4,823	4,110	3,994	3,574	3,718
Indirect and Import Taxes (includes import duties)	146	124	129	113	136
Gross Domestic Product at Market Prices	4,969	4,234	4,123	3,687	3,855

Source: IMF Document SM/96/252

Table 2: Summary of Non-Financial Public Sector Central Government Fiscal Operations)
Fiscal Year Ending September 30

Millions of gourdes	1991	1992	1993	1994	1995
Central Government Current Account:	-192	-475	-827	-956	-572
Current Revenue	1,287	927	1,069	794	2,249
Internal (Taxes)	1,004	674	748	540	1,825
Customs	283	154	179	105	424
Current Expenditure ⁹	1,479	1,402	1,896	1,750	3,734
Wages & Salaries	895	926	1,120	1,183	1,690
Operations	371	251	320	344	1,233
Interest Payments	94	104	183	174	212
External	36	46	125	116	154
Internal	58	58	58	58	58
Current Account Balance	-192	-475	-827	-956	-1,485
Public enterprises current account balance ¹⁰	103	163	435	320	583
Public Sector Savings	-90	-312	-392	-637	-748
Capital Expenditure	770	68	196	106	2,052
Overall Balance	-859	-380	-588	-742	2,800

Source: IMF Document SM/96/252

⁹ Excludes transfers to public enterprises

¹⁰ Refers to six major enterprises: Electricity Company, Telecommunications Company, Port Administration, Water Supply Company, Cement Company, Flour Mills; excludes transfers to Central Government.

Average, year-end, 1975/76=100	Sept. 30.	1991	1992	1993	1994	1995
Consumer Price Index ¹¹		338.2	410.1	487.4	669.8	872.3
Percentage Change CPI:		18.2	15.6	18.9	37.4	30.2
Food		18.3	19.0	12.8	35.5	33.0
Clothing		17.4	14.4	17.1	39.1	27.7
Housing		6.7	8.3	34.5	40.6	21.1
GDP Implicit Deflator		334.0	387.8	445.2	604.1	791.8
Import Price Index		187.1	201.9	205.7	206.3	205.7
Export Price Index		170.4	167.9	176.6	175.2	183.2
Terms of Trade Index		90.8	82.9	84.4	79.2	83.0

Source: IMF Document SM/96/252

Millions of gourdes	1991	1992	1993	1994	1995
Total	1,449.6	1,593.2	2,231.8	2,610.0	3,393.1
Agriculture	13.3	27.1	42.8	33.1	62.9
Mining	2.2	0.1	0.5	0.4	1.0
Manufacturing	446.3	576.4	783.7	955.5	1,035.2
Electricity, Gas, Water	15.0	13.3	13.1	61.6	149.1
Construction	40.9	26.3	29.6	32.2	62.0
Commercial Activity	558.7	557.1	757.1	756.0	1,102.2
Transport and Communications	31.8	12.9	18.9	9.9	18.4
Insurance and Real Estate	26.8	38.6	151.2	242.2	106.8
Other Services	314.7	341.1	435.0	519.1	855.5

Source: IMF Document SM/96/252

US\$Millions	1991	1992	1993	1994	1995
Current Account Balance (excl. grants)	-288.0	-126.4	-177.9	-109.2	-444.5
Trade Balance	-246.6	-138.5	-185.0	-83.8	-351.5
Exports, f.o.b	202.0	75.6	81.6	57.4	84.5
Imports, f.o.b	448.6	214.1	266.6	141.2	436.0
Services (net)	-110.9	-57.9	-66.3	68.3	-201.0
Private Transfers ¹³	69.5	70.0	73.4	42.9	108.0
External Grants	164.7	85.0	100.0	113.3	376.8
Current Account Balance incl. Grants	-123.3	-41.4	-77.9	4.1	-67.7
Capital Account Balance	136.1	36.5	66.8	-4.5	266.5
Public sector capital flows	28.5	-10.9	-15.3	-12.4	112.3
Loan disbursements	43.4	0.5	-	-	126.2
Amortization	-14.9	-11.4	-15.3	-12.4	-13.9
Banks (net)	-16.2	-3.4	-4.9	-26.4	-24.0
Direct Investments	13.6	-	-	-	6.2
Others ¹⁴	110.2	50.8	87.0	34.5	171.9
Overall Balance	12.8	-4.9	-11.0	-0.4	198.8

Source: IMF Document SM/96/252

¹¹1991 figures represent the Port-au-Prince area only, since 1992, the index covers the entire country.

¹² Excludes loans below G 75,000.

¹³ Consists of remittances transferred through the five authorized "transfer houses" and BRH estimates of such transfers channeled through the 17 other houses.

¹⁴ Includes errors and omissions.

Table 6 Composition of Merchandise Exports and Imports US\$ millions
Fiscal Year Ending September 30

US\$Millions	1991	1992	1993	1994	1995
Total Exports f.o.b	202.2	75.6	81.6	57.4	85.0
Agricultural Exports ¹⁵	27.3	14.7	12.0	12.0	28.1
Light Manufactures	128.9	55.2	66.9	44.4	45.7
Other Items	46.0	5.7	2.7	0.95	11.2
Total Imports f.o.b	527.8	278.0	346.2	183.3	481.4
Food	83.5	131.6	144.0	67.0	149.0
Others ¹⁶	107.3	52.0	52.6	32.4	68.0
Fuel and Lubricants	61.3	61.1	70.7	46.2	71.3
Machines and transportation	63.8	24.3	21.5	7.7	95.1
Raw materials	6.4	2.1	4.0	2.5	22.7
Manufactured goods	16.1	6.8	8.3	7.6	68.3
Other imports	189.4	0.2	45.1	19.8	7.0

Source: IMF Document SM/96/252

Table 7: Agricultural Land Use in Haiti , 1978

Type of Land Use	hectares	% of total
Cultivated Lands	870,000	31.4
Shifting Cultivation with Pasture	300,000	10.8
Grazing Lands	530,000	19.2
Forest Lands	250,000	9.0
Non-cultivated lands	820,000	29.6
All lands	2,770,000	

Ronco Consulting Company *Agricultural Sector Assessment: Haiti, USAID, 1987.*

Table 8: Summary Statistics on Agricultural Holdings, Haiti, 1971

Farm Size (hectares)	Number of Farms	Average No. Plots per Farm	Number of Plots	Total Land (Hectares)	Average Plot size
1 and below	361,985	1.46	530,480	184,843	0.34
1 - 2	141,930	1.94	275,510	211,940	0.76
2 - 3	53,600	2.43	130,400	137,359	1.05
3 - 4	27,370	2.71	73,930	96,762	1.30
4 - 5	8,440	3.47	29,340	38,790	1.32
above 5	23,385	3.34	78,110	193,822	2.48
TOTAL	616,710		1,118,230	863,516	

Anglade, Georges, *L'Espace Haitien*. Port-au-Prince, 1975.

¹⁵ Includes only traditional exports of coffee, sisal and sisal string, sugar (1991 only), cocoa and essential oils.

¹⁶ Includes beverages, oils and fats and pharmaceutical products.

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