INVESTMENT PLAN AND FINANCIAL ANALYSIS OF A WASHED COFFEE PLANT LOCATED IN GROS CHEVAL

Foret des Pins, Haiti

INVESTMENT PLAN AND FINANCIAL ANALYSIS OF A WASHED COFFEE PLANT LOCATED IN GROS CHEVAL
Foret des Pins, Haiti

Executive Summary

Haiti has been shipping the very best gourmet coffee all over the world, grown in the South East region of the country. Several very high end coffees from the multitude of micro-climates of the region have been identified such as Gros Cheval, Colin, Savanne Zombi, Fatima etc. But the one which is the most in demand from Japan is definitely the GROS CHEVAL located at an altitude of 1350 m. In fact, Haiti has not been able to satisfy the ever increasing demand of such coffee.

While the overall area has a great potential for a production of more than 300,000 kg or about 5,000 bags of 60 kg or about 20 containers of high quality coffee, only one container of 250 bags was exported to Japan last year. This was due to the following factors:

- Most of the production crosses the border with the Dominican Republic illegally and is exported to Europe as Dominican coffee;
- The coffee plantations do have shade in excess which hinders the potential productions of the farms;
- Very little fertilizers are used;
- The plantations are associated with so many other crops (avocado, citrus, bananas) while coffee represents only 20 % of the areas;

The project "INVESTMENT PLAN AND FINANCIAL ANALYSIS OF A WASHED COFFEE PLANT LOCATED IN GROS CHEVAL
Foret des Pins Haiti aims at increasing drastically the production of the Gros Cheval coffee by introducing modern agricultural practices such as the use of fertilizers, control of shade, fight against diseases and insects etc. A higher share of the production will also be collected by our enterprise.

With an investment of $US932,475.00, the project intends to process about 200,000 coffee cherry pots per annum or about 250,000 pounds and still generate a profit before financial charges of about US$283,650.00 per annum, at the third year.

About 500 families will benefit from the project which will increase threefold their revenues as well as encourage them to protect the

environment. From US$0.75 to and US$0.875 per pound, the farmers will receive upfront at least US$2.00 per pound. This will have as a direct effect, an impact on the farmer's attitude toward the coffee plantations as well as the protection of the environment. Within 3 to 5 years there will be a total transformation of the economic and social profile of the region and for the better.

This document presents the concept and the financial analysis of the project. Alternatives Inc S.A is looking for a US$932,475.00 funding as the harvesting for the 2011-2012 season starts in September.

ALTERNATIVES INC S.A: THE PROMOTOR

ALTERNATIVES INC S.A, is a network of washed coffee plant located in the South East of Haiti. The network was founded on January 15, 1996 and has 500 suppliers. ALTERNATIVES INC S.A is specialized in the marketing of coffee locally and internationally. Today it allows its members to participate fully in the decision making process concerning the sales of their coffees and has contributed greatly to increase its member's revenue. ALTERNATIVES INC S.A's headquarter is located at 173, Rue Jean-Paul II, Port-au-Prince, Turgeau.

ALTERNATIVES INC S.A's Coffee

ALTERNATIVES INC S.A's coffee is pure Arabica Typika washed coffee which is prepared by its members in four centers of primary treatment, one drying center and one center of final treatment. The natural environment and the conditions in which the coffees are processed in addition to the know-how of its members give a very special taste to the very high quality coffee produced.

The Natural Environment of the Coffee produced by ALTERNATIVES INC S.A

ALTERNATIVES INC S.A's coffee is produced in a tropical zone at high altitude. The plantations are on clay and karstic soils which receive the winds from the Caribbean Sea. It starts from the bottom of the biggest forest of Haiti which spans over 7,000 ha: The Pine Forest. The coffee plantations are between 1000 to 1400 meters altitude. The rainfall and the soil characteristics make the ideal conditions for the production of two types of high quality coffee: A gourmet or specialty coffee of very high altitude (1200-1400m) and a coffee from lower altitude (1000-1200) with the best attributes of Espresso Coffee (from natural coffee) (thick cream and strong body).

ALTERNATIVES INC S.A'S Coffee in the Market

ALTERNATIVES INC S.A supplies a gourmet coffee to roasters in Haiti and worldwide through a network of cooperative exporters. In 2001, 50 tons of coffees were sold to Europe under the Fair-trade system. In 2002, besides the European market,

ALTERNATIVES INC S.A's coffee penetrated the American Market. In 2004 ALTERNATIVES INC S.A's coffees are sold in France, Spain and in the US. In 2007 the Italian and the Japanese markets are conquered.

ALTERNATIVES INC S.A's contributions in the World Market

ALTERNATIVES INC S.A, through its marketing activities has contributed in the making of four brand names in the world market. They are:

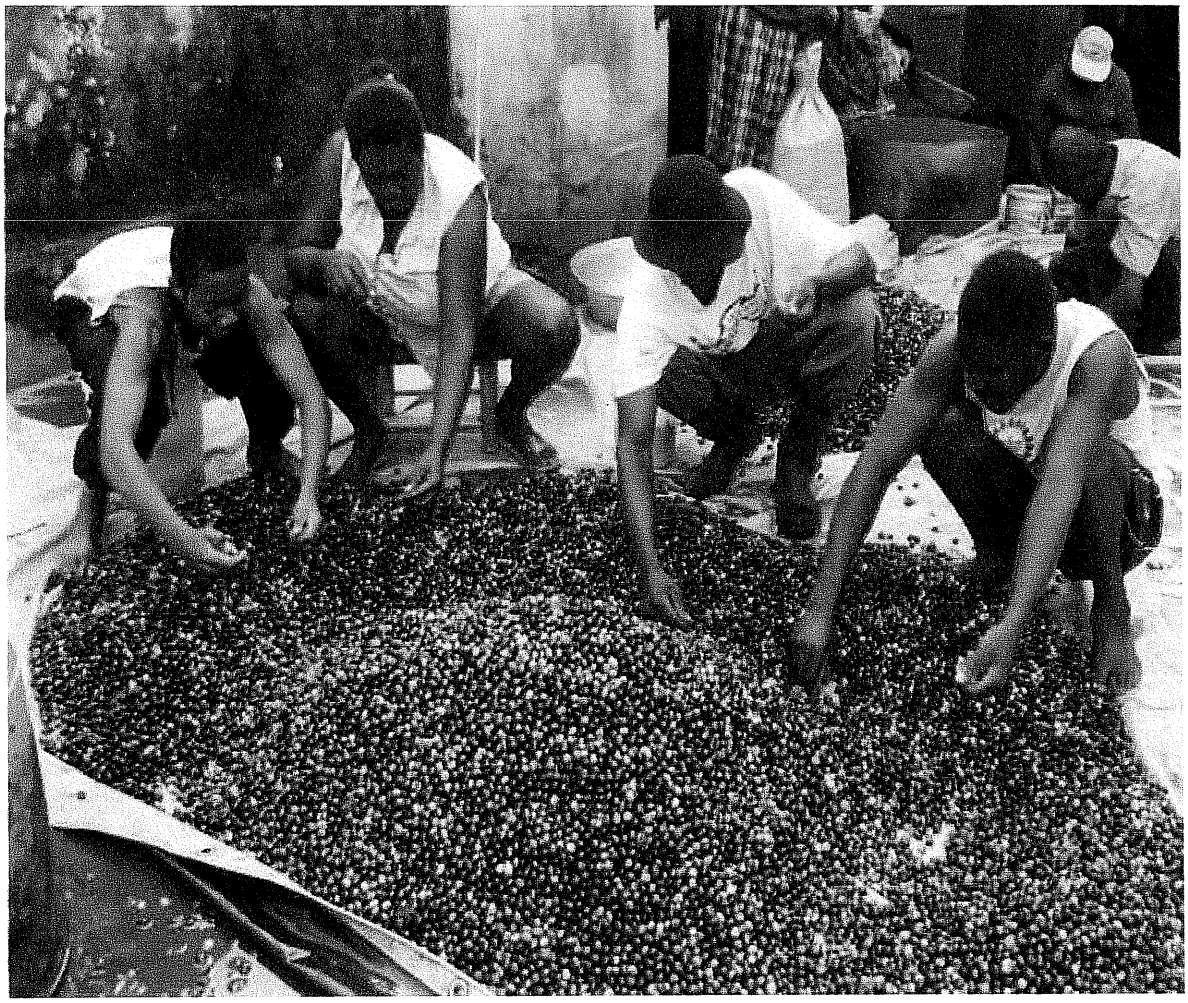
1).-*Café Forêt des Pins Bleus/Bleu Pine Forest Coffee*
2).-*Café Morne La Selle /Mountain La Selle Coffee*
3).- *Café CMIA Marre Blanche/CMIA Marre Blanche Coffee*
4).- *Café Gros Cheval/Gros Cheval Coffee*
5). *Café baptiste*

Alternatives Inc S.A has collaborated with all cooperatives and associations to promote quality coffee through a productive alliance approach and a win-win situation, where everyone's interest is taken into account. It is through this process that Alternatives Inc realized that the producers' interest were not taken into account because of the low prices given to them by buyers and the biggest reason the producers were selling to the Dominican Republic. Alternatives Inc. S.A wants to go directly to the producers, members of the cooperatives and associations, offer them better prices and at the same time helping them and give them the tools to assure a better coffee preparation and less triage (which can be 14% instead of 34%).

Social and Economical impact

- Creation of jobs: about 250 jobs (Part-time and full-time)
- About half of the employees are women
- Valorizing the land of the producers and increase their productivity
- Helping them maximize quality of product
- Being recognized internationally for a great quality product
- Assure that the product is not being sold to the DR and that the added-value stays in Haiti
- Help save the environment

ALTERNATIVES INC S.A AT A GLANCE	
	Information
Farm Name/Brand Name	ALTERNATIVES INC S.A
Name of Farm Owner	500 SMALL AND MEDIUM SIZE COFFEE GROWERS
Address (Producing Region)	BELLE ANSE SOUTH EAST OF HAITI
Farm Size (Hectares)	AVERAGE 2HA PER FARMER
Coffee Growing Area (Hectares)	1,000 HA
Annual Production	5,000 BAGS OF 60 KG
Processing System (Natural/Washed)	WASHED
Variety of Trees	ARABICA TYPIKA
Altitude (Meters) above sea	100-1400 M
Soil	KARSTIC AND CLAY
Annual Rainfall	2000mm
Harvest Season	SEPTEMBER TO MAY
Grade of Coffee	80-88
Exporter	ALTERNATIVES INC S.A
Processing Mill	3 PROCESSING FACILITIES
Characteristic/Special Futures	DEPENDING ON THE ALTITUDE THE COFFEES VARY FROM VERY SOFT AND SWEET TO VERY STRONG BODY WITH BITTER TASTE



INVESTMENT PLAN AND FINANCIAL EVALUATION PLAN OF A WASHED COFFEE PLANT OF ALTERNATIVES INC S.A

1. Technical intervention/production and processing

The society which is installed in GROS CHEVAL will buy ripe cherries of coffee only from its suppliers of the Gros Cheval area. GROS CHEVAL is located between 1000 and 1400 meters of altitude. The coffee coming from this locality are Specialty or Gourmet coffee (high end), according to the analysis carried out by

private laboratories of Japanese coffee Traders and others (see results of analysis in appendix). The coffee area at this altitude is estimated at nearly 1000 hectares.

The coffee which comes from these 1000 hectares should yield 250 kg/ha raw coffee beans at least or 440 cherry pots per hectare. The minimal potential of GROS CHEVAL would be 440,000 cherry pots. 90% of these coffees are sold in the Dominican Republic with INDUBAN through intermediaries at a price between US$0.75 and US$0.875 per pound.

This potential of 440,000 cherry pots is obtained without sustained application of chemical or organic fertilizer. In general, the coffee plantations of Arabica typika species have shade in excess; that does not support the intensification of the crop since any application of manure under shade of more than 40% (as it is the case) does not give the anticipated results. To guarantee the perenniality of the project of high end or gourmet coffee, some measures at the production level (fertilization, control of shade, fight against insects and diseases, sizes) are to be carried out. These measures alone will all contribute to double the existing yield using the very same area of plantation.

To start, the suggested capacity for processing is 200.000 pots cherries or 250,000 pounds per coffee season, that is to say 45% of the overall production of the area. The Society will carry out the pulping of cherries collected according to the processing called "aquapulpe" (without fermentation) to reduce the quantity of water necessary for the processing, since the zone does not have any river nor artesian well close by, the parched coffee, after going through the aquapulpe, is then dried on tables designed for this purpose in tunnels, on a glacis and/or in a mechanical drier. When the coffee beans reach a water content of 12%, they are put in bags and dispatched to the final treatment plant where it is peeled, sorted and conditioned for export.

For the implementation of this process, a whole range of investments and operating costs are necessary. The total investment being considered amounts to $US932,475.00.

2. Investments costs

The detail of the investments envisaged and the amount of the corresponding unit costs are shown in the following table.

2.1. For the US$400,000 working capital

a) US$200,000.00 is earmarked to finance the maintenance work and the purchase of inputs (fertilizers, pesticides etc) for approximately 500 farmers of GROS CHEVAL. This funding is also to ensure that producers stay true to Alternatives Inc S.A instead of selling their products to anyone else, particularly the Dominican Republic. The farmers have each an ID card and their plantations are identified with GPS references and are certified to facilitate the traceability of the products and to carry out a strict control of quality. This first fund will also assure the fidelity of the farmers to the project so that they will have an obligation to pay to Alternatives Inc S.A the equivalent in coffee cherry beans of the annual loan which is granted to them.
b) The other US$200,000 is used for the direct payment at the processing plant to the farmers who come to offer their coffee beans. It should be noted that for tracing the origin and the quality of the products, harvests will be carried out in specific areas and at a pre-established day. That will also facilitate the quality control in the coffee-plantations and avoid all the problems generally encountered: immature or too mature harvest, too long time between harvest and pulping, mixture of coffee of different origins etc.

2.2. For the Rehabilitation of Roads

It is considered a must to accompany the investments envisaged by the rehabilitation of 10 kms of road. This road connects GROS CHEVAL to the Port-au-Prince road. The estimated cost is US$50,000.00.

2.3. Investment in building construction

250m ^{2} is planned for the processing plant and a warehouse. 40m ^{2} of residence will be built. A cistern of 50,000 gallons will ensure the water provision of the factory collected from rainfalls and eventually from a spring.

2.4. Equipment

The equipments selected are those which will make it possible to reduce the post harvest losses and the rate of non exportable coffee beans which, in the area, is very high (about 25 to 30%): the commercialization of coffee beans is very difficult with such high coffee waste. This is why the processing plant will be equipped with pulping and démuscilage equipments. The factory will also be equipped with a mechanical drier since the zone is very rainy during the harvest period. The factory is also equipped with 2500m ^{2} of tunnel of drying (out of plastic), and of 2500m ^{2} of glacis (cement floor). Since the roads are not paved, two four wheel drive single cabin vehicles will be acquired.

Table 2: details of the required investments

	Investment		
	Quantity	**Price $US**	**Cost $US**
Land (1ha29)	1	4, 000.00	4,000.00
Residence Constructions	40 m²	500.00	20,000.00
Processing Plant and warehouse	250 m²	425.00	106,250.00
Cistern of 50,000 gallons	18	1.5/gallon	75,000.00
2 generators de 15kw	2	15,000.00	30,000.00
2 aquapulpes machines	2	10,500.00	20,100.00
2 manual dehullers n°6	2	500.00	1,000.00
Drier in cement floors	2 500 m²	20.00	50,000.00
Mechanical drier	1	50,000	50,000.00
Solar Tunnel drier	2,500	10.00	25,000.00
2 Four Wheel drive vehicles	2	46,200.00	92,400.00
Office desk	1	600.00	600.00
Residence furniture	--	2,000.00	2,000.00
Material and equipment	--	1,000.00	1,000.00
Computer	2	1,900.00	1,900.00
Scale	5	100.00	500.00
Forklift	1	350.00	350.00
Calculator	1	50.00	50.00
Humidimeter	1	750.00	750.00
Miscellaneous tools	1	500.00	500.00
Bags for transport			1,075.00
Roads rehabilitation	10 km	US$500/km	50,000.00
Plantation Maintenance		200,000.00	200,000.00
Working Capital		200,000.00	200,000.00
TOTAL			**932,475.00**

3. Production costs

3.1. Costs of exploitation

The costs of exploitation break up into four main categories: the cost of purchase of cherries, the personnel costs, overheads of the processing plant and the office, external costs (dehulling, preparation of the coffee and export) with the service providers (transporters and the center).

• Purchase of cherries

It is calculated that the processing plant buys the coffee cherry beans at about 2 US dollars per cherry pot from the producers, taking into account the production targets (200 000 pots treated by harvest season), this represents an annual expenditure of about 400.000 US $. This price is recommended to enter in strong competition with the Dominican Republic.

• Personnel costs

The personnel consist of 13 people. The corresponding wage bill is US$50,000.00 per annum: US$12,000.00 for 10 workers and US$12,000.00 for 2 administrators. 5 road maintenance persons are included in this cost. They will be in charge of repairing the 10 kms non paved road and 5 permanent workers. They will be supervised by a general manager, who will receive US $26,000.00 yearly.

• Overheads of the processing plant

The total overheads amount to US$ 7.100 per annum.

Table 3: Overheads of the processing plant

Type	**Minimum**
Generators maintenance	3 000 US$
Pump maintenance	150 US$
Depulpers maintenance	600 US$
Vehicles maintenance	3 000 US$
Office furnitures	350 US$
TOTAL	**7 100 US$**

• External costs

It is about the transport of the parched coffee towards the final Processing center, its dehulling, the sorting of the exportable coffee obtained, its conditioning and its export. The tariffs indicated are those practiced today by the service providers

Table 4: detail of the external costs (per 60 kg coffee bag)

Type	**Cost**
Transport to Mare Rouge	0.4 US $
Dehulling and bagging	10 US $
Transport to Port-au-Prince	1 US $
Export Cost	5 US $
TOTAL	**16.4 US $**

For a processed production of 200,000 cherry pots per annum, of 250,000 pounds of coffee or 2500 bags of 100 pounds, this

externalized cost represents an annual cost of 41,000 US dollars (16.4*2,500).

• Synthesis of the operational costs

On the whole, the production costs of the processing plant are estimated at close to US$513,100.00 per annum, that is to say US$2.56 by cherry pot purchased.

Table 5: Production costs of the factory (US $ per annum)

Cherries	400,000.00
Labor	50,000.00
Other internal costs	7,100.00
External costs	41,000.00
Insurance	15,000.00
Total	**513,100.00**

At US$2.00 by cherry pot, the cost of purchase of cherries only accounts for 78% of the total cost of exploitation.

3.2. Amortization

The buildings are amortized over 20 years, the heavy and light material over 5 years (pump, depulpers, and vehicles). These shorter durations than the usually recognized standards were selected in a prudent way to reflect the rapid degradation of the infrastructures in Haitian rural environment.

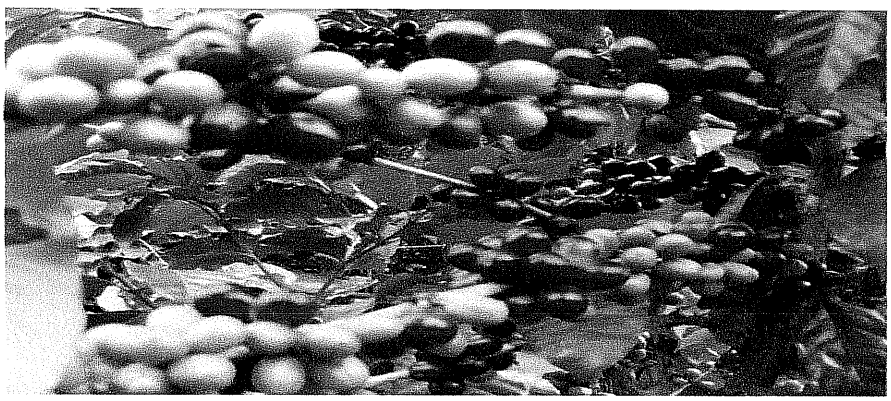
The amortization costs (calculated linearly) amounts thus to US$58,000 per annum.

3.3. Financial costs

They are for this exercise supposed to be null: the analyses cost-benefit and the development of the estimated operating statement before financial expenses will make it possible to measure the capacity of the project to support investments with credit.

3.4. The financial plan

It is proposed to facilitate the access to a line of credit of US$932,475.00 for the realization of the required direct investment.



3.5. Evaluation of the financial profitability of the Project

3.5.1. Method

The financial evaluation of the project is carried out from the point of view of the potential investors starting from the estimate of the cash-flow of the company over 10 years and the calculation of the corresponding rate of profit; the duration of recovery of the funded capital is also calculated (in years).

In accordance with the plan of financing suggested above, one takes into account the calculations of the whole investments necessary for the realization of the project.

3.5.2. Recall of the assumptions concerning the production

- **Production capacity**

The plant has the capacity to process 200.000 cherry pots per annum, while functioning for six months (October to March).

• **Technical ratios**

The technical ratios to process the parched coffee into exportable coffee beans are the following:
- At depulping, a coffee cherry pot gives 1, 25 pound parched coffee (high altitude);
- at dehulling, one pound of parched coffee gives 20% of straw and 80% coffee beans; thus a coffee cherry pot gives one pound of coffee beans and 0,25 pound of straw;
- at sorting, one pound of raw coffee gives 25% of non exportable coffee beans in year 1, 16% in year 2, 14% in year 3 and as such for the next 10 years of the project;
- with the selection, in year 1, 99,000 pounds will be exported like Gourmet coffee, 66,000 pounds will be exported like coffee of quality and 58,500 pounds sold locally as non exportable coffee; in year 2, with the improvement of the conditions of preparation, 99,000 pounds will be exported like Gourmet coffee, 99,000 pounds like coffee of quality and 40,000 pounds sold locally ; in year 3, year of cruising when the improvement of quality is at its higher point, coffee Gourmet 99,000 pounds, coffee of quality 116,000 pounds and non exportable coffee 35,000 pounds.

• **Standard price**

The central scenario is fixed on the following standard prices (in US dollars by commercial coffee pound):
Coffee gourmet: 4.50 US $ per pound,
Coffee of quality: 3.00 US $ per pound
Non exportable Coffee (national market): 1,75 US $ per pound.

They are thus relatively conservative assumptions.
• **Annual sales**

Taking into account the entire preceding assumptions, the coffee plant will have annual sales of US$854,750.00 in year 3, of which US$793,500.00 are accounted for export and US$61,250.00 for the national market. Annual exports relate to nearly 3 containers of Gourmet coffee and nearly 3.5 containers of coffee of quality.

3.5.3. The basic scenario

It corresponds to the assumptions of production and price outlined above: 60% of the produced coffee beans or nearly 3 containers are exported to the gourmet market at a price of US$4.50 per pound FOB Port-au-Prince, the coffee growers perceiving a price of US$2.00 per cherry pot sold before rebate. Two other containers are exported on the Fair-trade market at US$ 3,00 per pound FOB Port-au-Prince.

Tableau 6: Project rentability

OPERATING STATEMENT			**An 1**		**An 2**		**An 3**
Raw Product			745,000		812,500		854,750
	Gourmet Coffee	99,000x$4.5	445,500	99,000x$4.5	445,500	99,000x$4.5	445,500
	Coffee of Quality	66,000x$3	198,000	99,000x$3	297,000	116,000x$3	348,000
	Non Exportable Coffee	58,500x$1.75	101,500	40,000x$1.75	70,000	35,000x$1.75	61,250
	Lost	26,500lbs		12,000lbs		0lbs	
Operating cost			513,100		513,100		513,100
Brut Margin			231,900		299,400		341,650
Amortization			58,000		58,000		58,000
Net margin before financial cost			173,900		241,400		283,650

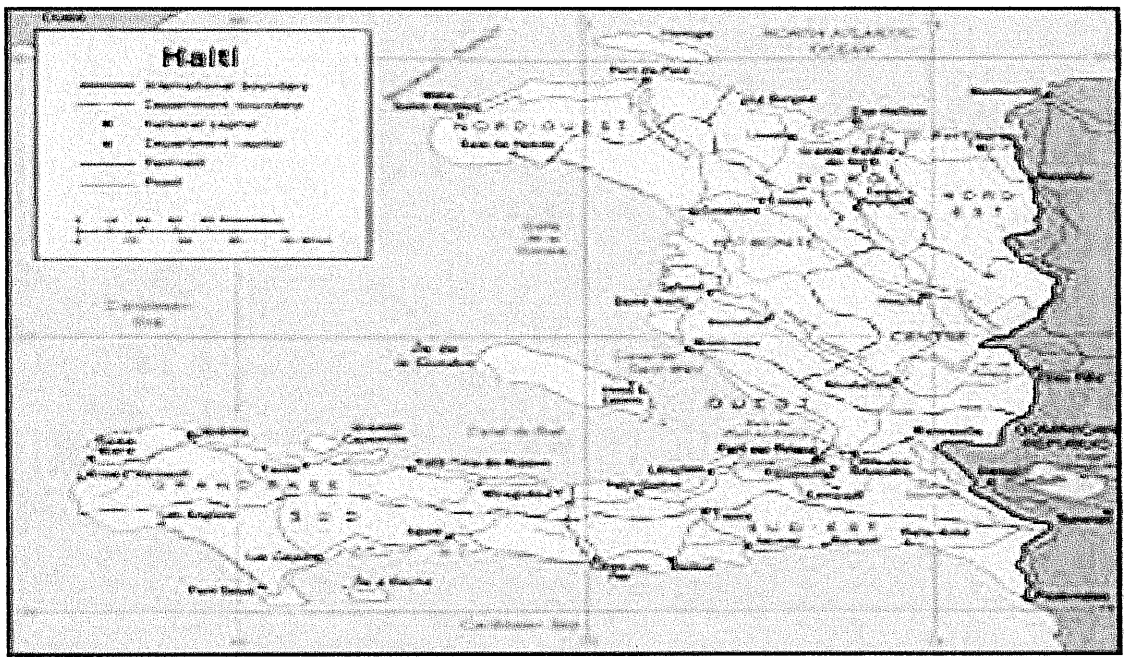
The rate of non exportable beans during the first 3 years following the interventions of quality control of the operation of the drying equipments will drop from 34% in year 1 to 16% in year 2 and 14% in year 3.

Table 7: Cash Flow

	0	1	2	3	4	5	6	7	8	9	10
OUTPUT	932,475	571,100	571,100	571,100	571,100	571,100	571,100	571,100	571,100	571,100	571,100
INCOME	0	745,000	812,000	854,750	854,750	854,750	854,750	854,750	854,750	854,750	854,750
NET FLOW	-932,475	155,900	206,900	283,650	283,650	283,650	283,650	283,650	283,650	283,650	283,650
CUMULATIVE NET FLOW	-932,475	-776,575	-569,675	-286,025	-2,373	281,275	564,925	848,575	1,132,225	1,415,875	1,699,525

The calculated rate of profit is 33.18% in case of an investment of US$932,475, the profitability of the project is quite satisfactory: the funded capital is recovered at the year 5. The net margin before financial expenses is about US$ 283,650.00 per annum. (Third year)

Map 1: Map of Haiti



Map 2 : Map of the Communal section of Belle anse