



# Fiji Chocolate Culture

A Swedish-Fijian  
Community Development Project  
- Project Description

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# **Fiji Chocolate Culture**

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Project description

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# 1. Introduction

## 1.1. Preface

### WHY CROSS THE RIVER TO FILL A PAIL OF WATER?

*Sometimes little details are worth recording, and sometimes it is the little details that help everything come together. Just as for many countries, their flags reflect their national characteristics, so those of Fiji which up close are particularly apparent in the precise details of its flag. The national flag features the British Union Jack on a light blue background, and the shield from the Fijian coat of arms\*. The coat of arms features two warriors with war club and spear, a takia (Fijian canoe) and a shield. The shield bears images of the staples and hopes of Fijian prosperity; sugar cane, a coconut palm, a bunch of bananas, a white dove of peace, and last but not least, a heraldic lion clasping a cocoa pod.*

*Evidently cocoa farming was once integrated into Fijian culture. After discussing this matter with people around the Fiji mainland the unanimous response was that those times were long gone and that it would be hard to find such plantations still being worked. However the Fiji Ministry of Agriculture, Sugar and Land Resettlement referred to the agricultural district of Tailevu, just north of the Fijian capital of Suva, as being the area where to find cocoa farmers still in operation. Mr. Ilai Nabobo who is one of a handful of cocoa farmers in the area guided me around his orchard, which is literally in the rainforest as an integrated part of a self-sufficiency farming system. We were accompanied by the Senior Agricultural Officer at the time, Mrs. Tepola Seniloli, from the Tailevu Agriculture Department in Korovou. They informed me about the quality of the cacao varieties he grows, the harvest procedures and how they transport it all to nearby Suva, from where it is finally exported. I asked him if he and his family regularly indulged in the pleasure of drinking hot chocolate. The answer was bewildering. When introduced to the Fiji Islands, THEOBROMA CACAO apparently did not come bolstered by its supporting chocolate culture. The only chocolate products obtainable in the cacao farming district of Tailevu were such imported products as Nestlé Cocoa Powder, Snickers and Twix bars. When they heard of my experience of Mexican chocolate making, where roasted cocoa beans, sugar, and flavourings such as vanilla and cinnamon are used, they were all very surprised at how easy it all seemed to be. After a moment of silence the cocoa farmer Mr. Ilai Nabobo said: “Vanilla grows wild in my back yard...” So why cross the river to fill a pail of water?*

**Fabian Rimfors**  
*Project initiator*

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\* The Fijian coat of arms is featured on the cover of this document.

## 1.2. Purpose of the project

The **Fiji Chocolate Culture – A Swedish-Fijian Community Development Project** aims to integrate the principles of sustainable development with Fijian cocoa farming and handicraft traditions by utilizing already available Fijian resources currently not used to their full potential. This will reverse the loss of environmental resources and directly improve the Fijian cocoa farmers' economic situation. New domestic chocolate products, entirely made from Fijian agricultural produce and natural resources easily accessible to cocoa farmers, will offer a competitive and more wholesome alternative to imported products in the same categories and lessen dependence on foreign imports.

Establishing a sustainable culture around cacao and chocolate, similar to the ones in Mexico or the neighbouring island of Samoa, could in the long run have positive effects on Fiji's national economy and reduce poverty in rural areas. At the same time as offering opportunities for tourists and visitors to buy and support locally produced chocolate made from characteristic Fijian ingredients, it would be a chance for the great majority of people of limited means to enjoy a nutritious beverage commonly associated with luxury.

By making use of crops and resources which would otherwise be neglected it would be possible to achieve this goal without interfering with the regular exports of cocoa beans. The cocoa farmers' annual harvest and yield destined for export would therefore be unaffected by the Fiji Chocolate Culture project, since it will use none of that crop in its process of making the chocolate products.



**Figure 1: Cocoa farmer Mr. Ilai Nabobo in his plantation with a Criollo cocoa pod.**

## 2. Background and overview

### 2.1. Cacao varieties

“Cacao” is an imitation of the word which the pre-Colombian Mexicans used for this commodity as early as 2500 B.C. As a result of a misspelling *cacao* became *cocoa* throughout the English-speaking world, where *cacao* refers to the tree that grows the melon-shaped pods. Inside the cacao pods are the beans that are the main ingredient for chocolate. Technically, they are cacao beans, but they are known throughout the cocoa industry as *cocoa beans*. The powder that is made from the beans is also called *cocoa*.

The cacao tree was given its binomial scientific name, *Theobroma cacao*, by the Swedish physician and botanist Carolus Linnaeus (Carl von Linné). *Theo-broma* is Greek for "Food of the gods". There are two varieties of *Theobroma cacao* sufficiently distinct to be regarded as subspecies: Criollo, which developed in Central America north of the Panama isthmus, and Forastero, originating in the Amazon basin. The Criollo probably developed from the Forastero that had eventually moved north-eastward<sup>1</sup>. The two species have distinct qualities where Criollo is considered to make the more flavoursome chocolate<sup>2</sup>. It also requires less fermentation, but unfortunately it is more sensitive to diseases and yields less than the Forastero. A third variety hybridized from the two, initially in Trinidad, and this series of hybrids are known as Trinitario. It exhibits a wide range of characteristics, but generally it has inherited the robustness and productiveness of the Forastero and, at its best, also the delicate flavour of the Criollo.

The quality and price of cocoa beans are reflected in the supply and demand on the world production market, where there are two major types of cocoa: “bulk” cocoa and “fine” or “flavour” cocoas<sup>3</sup>. While bulk cocoa represents 95% of the world market the high grade fine cocoa, with its unique flavours required for dark chocolate and high quality coatings, only constitutes 5%. Evidently these products are the ones to attract premium prices. Generally fine cocoas are produced from Criollo or Trinitario and bulk cocoa from Forastero, with the exception of some Forastero varieties of very high quality.

### 2.2. World distribution of cocoa commodities

Cacao grows only in tropical developing countries where it is cultivated mainly on small private family holdings, but traditionally it is processed and consumed by people in the temperate and developed regions of the world. Most of these processors are in one way or another vertically integrated in the oligopolistic structure of transnational companies, handling the entire process from the delivery of the bean to the finished product, generally more concerned with increasing their already dominant position and world-wide private interests, instead of promoting a general global efficiency that would benefit the

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<sup>1</sup> Young, 1994. pp. 14-16

<sup>2</sup> Wilson, 1999. p. 106

<sup>3</sup> *Ibid.*, p. 247

developing countries they are trading with. This project intends to improve the situation towards a more balanced level where Fiji can supply its own market with a superior domestic alternative to imported products in the same category. This would reduce the dependence on imported cocoa products from transnational corporations, which are manufactured from cocoa beans that may as well have been originally exported from Fiji.

The United Nations Conference on Trade and Development, *UNCTAD*, has stressed the importance of overcoming artificial trade barriers in order for developing countries to be able to compete with the corporations which operate in the intermediate and consumer markets<sup>4</sup>. One way of tackling the problem and of penetrating the market would be to specialize in certain types of chocolate<sup>5</sup> and to find a niche for these products. Another would be to provide technical expertise and personnel<sup>6</sup> which within the chocolate manufacturing could lead to the development of a core of experienced cocoa farmers and employees at local agriculture department offices. In that way the ownership and control over processing faculties, such as manufacturing techniques and facilities, would remain in the hands of the people in the country of supply, represented primarily by the cocoa farmers, instead of being controlled and absorbed by the oligopolistic structures of multinational firms.

### 2.3. History of cocoa farming in Fiji

Although cocoa was introduced in the 16th century into Asia and the Pacific it was not until 1880 that the British brought it into cultivation in Fiji<sup>7</sup>. Originally those cocoa varieties were introduced into Ceylon (now Sri Lanka) from Trinidad around 1798 and subsequently transferred to Singapore and Fiji (1880) and neighbouring Samoa (1883). This makes cocoa the oldest of the three beverage industries in Fiji concentrating on export: cocoa, coffee and tea.

The modern day development of the industry was initiated in the 1960's when the government made efforts to establish cacao as a smallholder crop to be interplanted with coconuts<sup>8</sup>. This was a slow process and it was reported that the smallholders were showing little interest in the crop in the mid 60's<sup>9</sup>. Although government efforts and increased prices resulted in an upswing in the industry during the second half of the 60's cocoa exports lingered at insignificant levels until the mid 70's and did not take off considerably until the early 80's as world prices increased. Another factor was the success of the large increase in plantings under development projects, which led to nearly a tripling of the area planted to cacao between 1981 and 1985<sup>10</sup>. Fijian cocoa production remained fairly constant during the 80's and peaked at its all-time high of 468 tonnes in 1987<sup>11</sup>.

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<sup>4</sup> UNCTAD, 1984. pp. 45-63

<sup>5</sup> *Ibid.*, p. 52

<sup>6</sup> *Ibid.*, p. 72

<sup>7</sup> Young, 1994. p. 42

<sup>8</sup> Fleming, 1996. p. 27

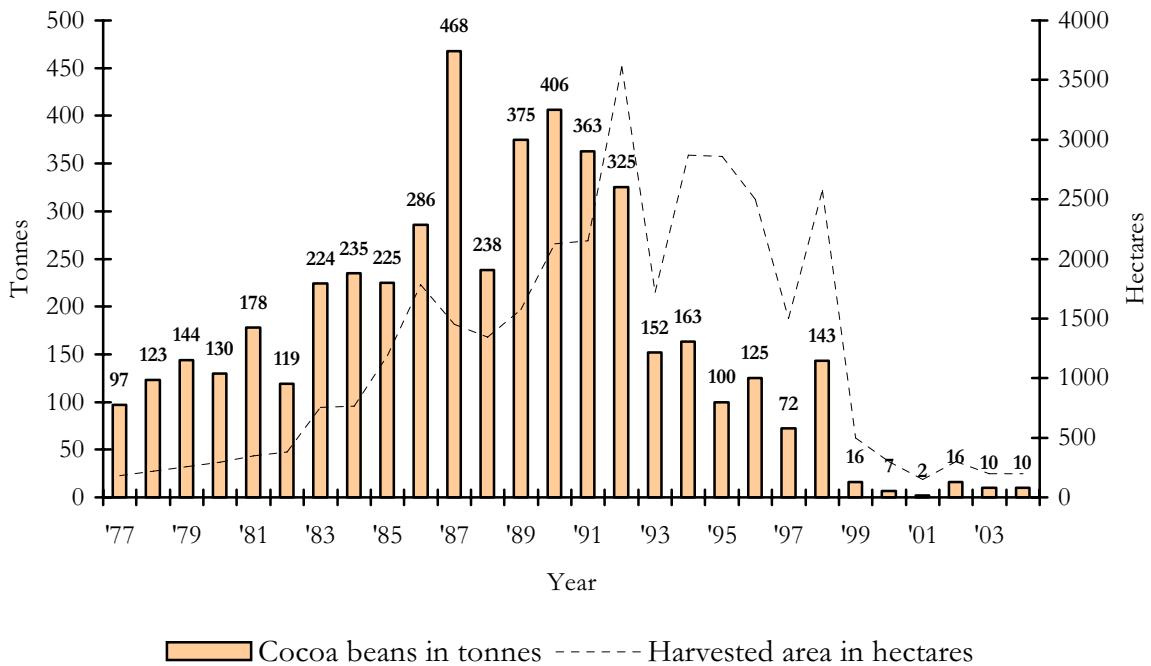
<sup>9</sup> Colonial Office, 1966. p. 35

<sup>10</sup> Fleming, 1996. p. 27

<sup>11</sup> Fiji Islands Bureau of Statistics, 2005. p. 19

**Table 1: Fiji's annual cocoa bean production and harvested area:**

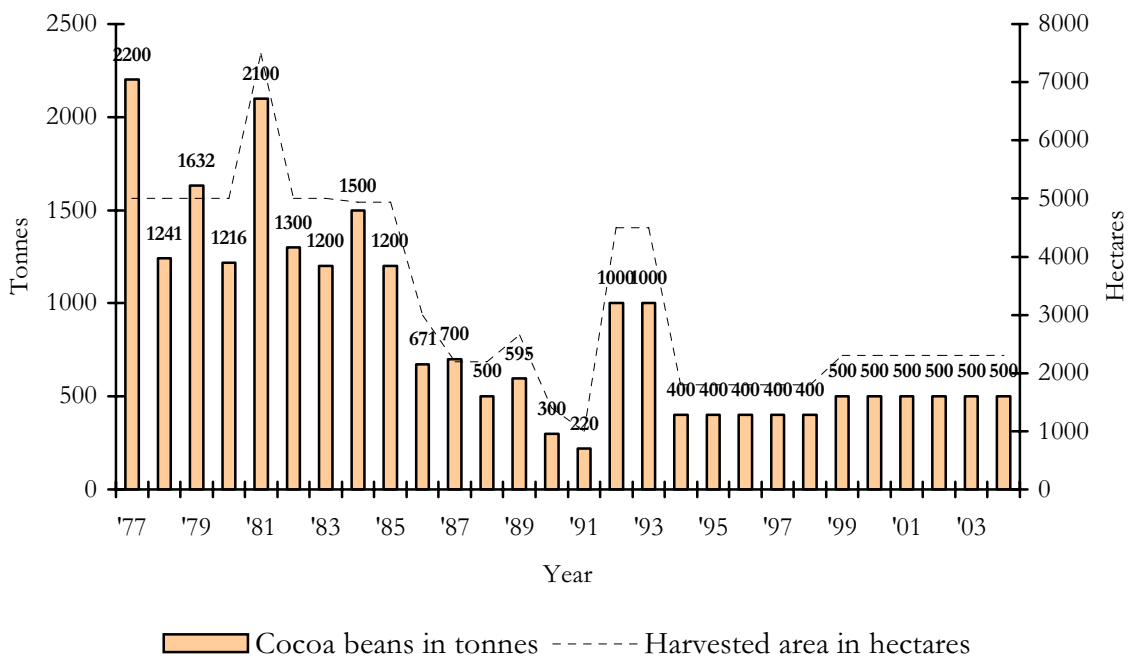
*Note:* Sales to NMA and NATCO (National Marketing Authority and National Trading Corporation Ltd. respectively)



Sources: Fiji Islands Bureau of Statistics, 2005.  
FAO Statistical Databases, 2005.

**Table 2: Samoa's annual cocoa bean production and harvested area:**

*Note:* Y-axes are extended to 2500 tonnes and 8000 hectares respectively.



Source: FAO Statistical Databases, 2005.

## 2.4. Decline in Fijian cocoa production

In 1994 around 2400 farmers were cultivating cacao on about 3300 hectares of the wetter parts of the two main Fijian islands Viti Levu and Vanua Levu<sup>12</sup>. In recent years there has been a decline in Fijian cocoa production and today both cocoa farmers and hectares are counted by the hundred. This has resulted in an average cocoa yield of 41 kilograms per hectare over the ten-year period 1995-2004, which is relatively low considering the average world cocoa yield over the same decade is 481 kilograms per hectare<sup>13</sup>. However, since the world cocoa production is primarily represented by the high yielding Forastero variety (approximately 80% of the global market) one has to consider that the particular variety of cacao and its inherent characteristics, plus other factors such as soil, rainfall, spacing and age of the trees, has a major effect on its yield<sup>14</sup>. Nevertheless Fiji's yield is still considerably low in comparison to Samoa's 2004 yield of 217 kilograms per hectare<sup>15</sup>, where conditions regarding varieties are much the same.

Several factors have collectively contributed to the decline of Fijian cocoa production, each one with its specific negative effect on Fijian cocoa farming during particular periods; aging trees surpassing their maximum production potential<sup>16</sup>, black pod disease and canker combined with a fall in world prices, inadequate marketing processes, smoke contamination and political instability<sup>17</sup>. An additional cause is Fiji's exposed position and vulnerability to tropical cyclones and hurricanes. The islands were hit by cyclone Kina in 1993 which shattered several cocoa trees in its way on the main island of Viti Levu<sup>18</sup>. Fiji's Ministry of Agriculture, Fisheries and Forests has stated that the most promising approaches to recuperation would be to concentrate on developing an organic cocoa production system making use of fine flavour cacao varieties since Fiji "has maintained an outstanding collection of Trinitario clones and hybrids"<sup>19</sup>.



Figure 2: Cocoa pods in perennial ripening at cocoa farmer Mr. Ilai Nabobo's plantation.

<sup>12</sup> MAFF, 1994.

<sup>13</sup> FAO Statistical Databases, 2005

<sup>14</sup> Australia Department of Territories, 1958. Part II p. 18

<sup>15</sup> FAO Statistical Databases, 2005

<sup>16</sup> Fiji AgTrade, 2005. p. 8

<sup>17</sup> Fleming, 1996. p. 28

<sup>18</sup> MAFF, 1996. p. 49

<sup>19</sup> *Ibid.*

## 2.5. Parliamentary Debates on rural and agricultural potentials

The present situation and future potentials regarding development of rural areas and the agriculture sector were the subject of parliamentary debate as recorded in the Senate Hansard for August 26 2004, stressing the need of entrepreneurial initiatives in order to create new jobs, industries and businesses, *e.g.* with niche products<sup>20</sup>:

***Honourable Senator Viliame Navoka:***

”Mr. President, Sir, /.../ Even though disparities exist, rural areas will always remain the hidden strength of the economy due to the abundance of traditional food crops in Fiji. Whilst, there is enormous potential, there are also severe constraints, which include the unavailability of arable agriculture land, inaccessibility to well-functioning markets, unavailability of credit and infrastructure, poor dissemination of research and information to farmers and high vulnerability to international competition.”

“Mr. President, /.../ The established fact, however, is that, the agriculture sector holds enormous potential in both quantities and capacities for agricultural commodity items that have overseas markets and are exportable. /.../. The performance of the agriculture sector over the last decade has been mixed. While production and exports of some commodities such as dalo, cassava and vegetables have gradually increased, others have stagnated or declined. Copra and cocoa have had a poor decade with declining production and exports.”

“Mr. President, Sir, future potential is with products where Fiji has a competitive advantage such as in high value niche exports and traditional food crop production. /.../ Sir, my view of the rather stagnant situation of development within the agricultural sector is the absence of a well-developed marketing network for cash crops that is workable and economically viable.“

“Sir, the need to create economic opportunities and provide jobs to our people is more pronounced now, /.../. While we do welcome the drive to attract foreign investors, who bring with them high capital intensive and developed industries which are basically high skilled into Fiji, we must not ignore the need to develop and establish our local entrepreneurial base, based on our own natural and manpower resources with the existing infrastructural facilities available. We must not lose sight of the need to building up and establishing a solid local entrepreneurial base which is bound to help stimulate the creation and establishment of new industries and businesses which will provide the much needed jobs to the current unemployed labour force.”

“I may mention, Mr. President, Sir, that the approach should be that while large and medium scale industries through foreign investments would be concentrated in major centres, Government, through the National Centre for Small and Micro-Enterprises Development should diversify industrial and commercial activities from the urban centres into the rural areas, including growth centres through the development of small industries/businesses. Through such diversification, Sir, there will be openings for rural dwellers, including villagers to participate in operating small industries/businesses thereby providing jobs at their doorsteps, /.../.”

Although there has lately been an upward trend in traded food crops and Fiji’s agricultural sector has undergone a dynamic process of increased commercialisation which has been able to expand to meet the increased demand from a rapidly growing urban population<sup>21</sup>, this does not affect cocoa, which still remains a disregarded and unexploited resource.

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<sup>20</sup> Parliament of Fiji, 2004

<sup>21</sup> McGregor, 1999, p. 8

## 2.6. Cocoa farming in the agricultural district of Tailevu

Even though cacao is a perennial crop it is only harvested once a year in the agricultural district of Tailevu. Cocoa farmer Mr. Ilai Nabobo confirms that much of the cacao fruits, the ones ripening outside the harvest season (including the so-called “mid” or “secondary” crop), are left to decompose on the trees due to the high costs and hardships of organizing and transporting the yield, of which the small quantities do not justify the efforts involved in further harvesting. During the harvest the farmers themselves organize transport of the cocoa beans to Suva. This is done at the farmers’ expense and therefore they intend to harvest at the time of year when they consider the cacao trees to yield most. They also co-operate in harvesting at the same in order to minimize transportation costs.

Continuous harvesting during the regular Fijian “off harvest season” also contributes with other benefits besides being utilized in this project. Removing ripe pods as soon as possible, or at regular intervals of one and a half to three weeks, reduces the risk of attacks by fungal diseases or by animal pests<sup>22</sup>. Furthermore the profits from using composted pods to get lignin back into the system as mulch are relatively low<sup>23</sup>. As stated in 1.2 it is possible to utilize these removed ripe “left over” pods in chocolate manufacturing with no interference to the regular exports of cocoa beans, since this project uses none of that crop in its process of making the chocolate products.

Different varieties of cacao are cultivated around Tailevu; mainly the Forastero variety *amelonado* (locally referred to as *Waimaro*), Criollo and Trinitario. Criollo and Trinitario are both scarce and together they represent approximately 20 percent of the world market. Unfortunately their distinctive premium qualities are not utilized, as they are not separated and end up at the exporter in Suva all mixed up.

## 2.7. Mexican and Samoan chocolate cultures

Fiji has great potential and assets for making its own chocolate in the same way it is made in the Oaxaca region of Mexico, the region where the Maya, and other civilizations before them, refined the use of the cocoa bean<sup>24</sup>. One does not even have to go that far from Fiji to find a thriving chocolate culture. In the neighbouring island of Samoa the national drink is *koko Samoa*, a chocolate drink prepared principally in the same manner as in Mexico, *i.e.* roasted and ground cocoa beans mixed with sugar and water or milk. This kind of chocolate includes the whole bean and makes a slightly coarse drink, but exceptionally tasty and high in nutrients with healthy benefits. In Samoa 51% of the households consume cocoa on a regular basis, with an average weekly consumption of 4 cups per household per day<sup>25</sup>, while some districts recorded an average consumption of 13 cups per households. The Samoan numbers of holdings growing cocoa for different purposes are: 69% mainly for home consumption, 26% partly for home consumption and partly for sale, and 5% mainly for sale.

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<sup>22</sup> Kilcher *et al.*, 2002. p.79

<sup>23</sup> *Ibid.*, p. 76

<sup>24</sup> Young, 1994. pp. 17-19

<sup>25</sup> Samoa Department of Statistics, 1999. pp. 36-58

## 2.8. Additional unexploited resources related to chocolate

Sugarcane is thought to be indigenous to the islands of the South Pacific, and it is certain that several of the world's principal commercial varieties of sugarcane were obtained from this source<sup>26</sup>. It is an important ingredient in chocolate manufacturing and is also abundant in Fiji. The sugar industry was the mainstay of the economy for most of the 20<sup>th</sup> century, and it currently provides employment for almost a third of the population. The country manufactures premium quality sugar and using fresh raw sugar, with its strong molasses flavour, not only contributes slightly more minerals and protein, but also produces a very full bodied chocolate. This is the only product the cocoa farmers need to purchase and fortunately high quality raw sugar is inexpensive and easily accessible. Popular chocolate flavourings such as vanilla and cinnamon grow wild in many places in Fiji and are available to the cocoa farmers. Some cinnamons are native to the islands and both cinnamon and vanilla are regarded as characteristics of the country. Besides being associated with Fiji and the islands of the South Pacific they also constitute nutritious additives with antibiotic and stimulant properties respectively.



Figure 3 and 4: Fijian stamp motifs: vanilla and cinnamon.

## 2.9. Health benefits associated with high content of cocoa solids

The chocolate products intended for the Fijian market through this project will contain a high percentage of cocoa solids (between 60-70%) and correspondingly less sugar. “Cocoa solids” are the products deriving solely from the cacao fruit expressed as solids when water is excluded and refers to: *cocoa mass* (the paste from ground cocoa beans), *cocoa butter* and *cocoa powder*. Both cocoa butter and cocoa powder are obtained from hydraulic pressing of the cocoa mass, but only the cocoa mass and the cocoa butter are used in the manufacturing of regular chocolate intended for eating. The manufacturing procedures in this project use pure ground cocoa, *i.e.* cocoa mass, with no added cocoa butter. Using a high content of cocoa solids yields a product high in nutrients, particularly protein, vitamins and minerals<sup>27</sup>, which has also lately been recognized as a significant source of phytochemicals with healthful effects<sup>28</sup>. This kind of chocolate and cocoa have the highest concentration of flavonoids among frequently consumed foods and have potent antioxidant and antiplatelet activities following its consumption, hence it is associated with facilitating blood circulation and reducing the risk of cardiovascular diseases<sup>29</sup>.

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<sup>26</sup> Macinnis, 2002. pp. 9-10

<sup>27</sup> Fineli Database, 2004.

<sup>28</sup> Keen, 2001. pp. 436S-439S

<sup>29</sup> Engler *et al.*, 2004. pp. 197-204

## 3. Description of the project

### 3.1. Applicable methods on location

If the right incentives are provided to small holder cocoa farmers they could spawn a new market with promising prospects. By introducing knowledge of how to utilize already available and currently unexploited resources to Fijian cocoa farmers, and establish markets for their chocolate products, the project aims to improve the cocoa farmers' economic situation and reduce poverty in rural areas. At the same time it offers the public not only a competitive, but also a nutritious domestic alternative to imported chocolate products of inferior quality and nutritional value. Locally produced chocolate generates a significantly higher price per kilo than the average price of cocoa beans offered to the farmers today, which in 2004 was at FJD\$1.94/kg<sup>30</sup>. In a wider perspective the integration and development of a sustainable chocolate culture, based on Fijian agricultural and natural resources, will possibly contribute to minimized dependence on imported products in the same categories, thus having a positive effect on the Fijian economy as a whole. The following methods for conceiving the objectives on location have been worked out in consultation with the Fiji Ministry of Agriculture division AgTrade and the Tailevu Province Cocoa Growers and Producers Co-operative Association Ltd.:

- Information meetings and bilateral communication with producers (cocoa farmers), distributors and retailers to most effectively meet realistic reciprocal expectations and adapt to current and desired conditions. Involving all three phases in the process from an early stage ensures an interdependent relation which promotes a constructive progress of the project.
- Consulting Samoan expertise in the manufacture of *koko Samoa* in order to take advantage of experiences from a thriving chocolate culture in close proximity, both geographical and cultural, to where the mentioned resources are utilized.
- Workshops in chocolate manufacturing with interested parties, *i.e.* cocoa farmers co-operative and Tailevu Department of Agriculture.
- Familiarize craftsmen and laypersons with potentially adequate chocolate related handicrafts in order to replicate and develop Fijian versions.
- Public and official dissemination of information about the project: a documentary, Internet Website, media coverage, meetings with officials in the sectors concerned, and encouragement of public school implementation of a thematic day devoted to cocoa and chocolate in cacao growing districts.

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<sup>30</sup> Fiji AgTrade, 2005. p. 5

## 3.2. Manufacturing procedures

Determining which process is most appropriate and sustainable for Fijian cocoa farmers according to their conditions has to be done on location. In order to adapt to the individual conditions of each and every cocoa farmer consideration has to be taken of:

- Access to electricity
- Supply of cocoa beans
- Members of the household able to participate
- Location of household and plantation

There are different customs of how to traditionally make chocolate once the beans are dried and roasted, but they all bear similar results. Although variations of the preparation methods occur even within the same tradition the basic steps in rural areas are as follows:

1. Cacao comes in pods 15 to 20 cm long, 5-10 cm in diameter, that contain beanlike seeds immersed in a viscous pulp. The pod is split open with a machete, and the seeds removed. The pulp is appreciated for its refreshing sweet and slightly acidic qualities, particularly amongst cocoa farmer families.
2. The cocoa beans are put into boxes or thrown on heaps and covered where the pulp starts to heat up and *ferment*. The fermentation process (usually 3-5 days for Criollo beans and 6-8 days for Forastero<sup>31</sup>) removes the pulp, kills the germ of the bean and activates existing enzymes in the beans to form compounds that produce the chocolate flavour when the beans are roasted. Fermenting is a simple "yeasting" process in which the sugars contained in the beans are converted to acid, primarily lactic acid and acetic acid.\*
3. Fermented beans must be *dried* to prevent deterioration if they are to keep for later use. The drying process stops the fermentation phase and is mainly done by spreading the beans out in the sun on trays, tables, raised bamboo matting or concrete floors. The beans need to be covered overnight and in rain. Sun drying alone takes at least a week.\*
4. The beans are *roasted* on a metal sheet over an open wood fire. Midway in the process, the husks come off, or can be removed by picking up the bean and squeezing the skin off.
5. **a) Mexican grinding:** The roasted beans are put on a Mexican *metate* (a flat mortar or grinding stone) which is heated from underneath by charcoal or firewood. As sugar and additional flavourings such as vanilla, cinnamon or roasted almonds are added, the beans and the other components are ground until they turn into a thick paste.

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<sup>31</sup> Kilcher *et al.*, 2002. p. 79

\* Variations occur during step 2 and 3 depending on the amounts of cocoa beans and if it is for domestic household use.

- b) *Samoan grinding*: The roasted beans are put into a *Samoan bowl* (large wooden mortar) which is heated by exposure to fire. Sugar is added and the beans are pounded by a heavy pestle until they turn into a thick paste. No additional flavours are added.
6. The paste is left to dry and solidify in small blocks. When being made up into a drink bits of cocoa are hacked off the blocks and coarsely ground up to be dissolved in water (optionally milk) and boiled in a pan.

Minor differences occur regarding step 5 and as indicated above 5a embeds the traditional Mexican preparation and 5b the Samoan. There are other ways of grinding cocoa beans into a paste suitable for small scale production, such as using a food processor or blender, and methods best suited for each cocoa farmer have to be set up. Common to all these manufacturing methods though are that they are easily performed in rural homes and do not require any major investments.



**Figure 5: To the left, a Mexican *metate* grinding cocoa beans. To the right, a Mexican *molinillo*, building up froth on the drink.**

### 3.3. Workshops in manufacturing

Once it is determined which manufacturing methods are best matched to Fijian conditions these methods have to be individually adapted to each interested party through workshops. Since most Fijian cocoa farmers are well familiar with steps 1 to 4 of the list in 3.2 the workshops will focus on steps 5 and 6; demonstrating different grinding techniques, recipes and the use of flavourings such as vanilla, cinnamon, almonds, spices or edible flower petals, as used in Mexico as a fragrance. The workshops will be held individually at the cocoa farmers' farmsteads in order to best meet their demands and apply the most appropriate methods, as well as survey the grounds for obtainable flavourings.

### 3.4. Handicrafts related to chocolate consumption

The long tradition of cultivating cacao in Mexico has created certain accessories to facilitate everything from the manufacturing processes to the preparation of the actual drink. There are special ceramic cups for drinking chocolate, and others made out of coconut shells for drinking *tejate*, a pre-Colombian cocoa drink which is consumed cold. A *molinillo*, a wooden whisk, is used to obtain the essential cap of foam on top of the chocolate drink. These items are all regarded as products of traditional handicraft and are not only an integrated part of Mexican chocolate culture, but also a popular handicraft souvenir amongst tourists.

The material and biogeographic conditions for producing such objects are much the same in Fiji as in Mexico and the objective of introducing a similar chocolate culture in

Fiji is therefore enhanced if supported by its adherent items and tools. Additionally it offers craftsmen in the related fields an alternative source of income. Some handicrafts have a simpler design, thus requiring less professional skills to be made, and can therefore be produced by a wider range of people, such as family members of cocoa farmers or laypersons with access to the raw material. The following three basic items are highly relevant when addressing potential consumers and customers:

***Ceramic cups:*** Even though hot chocolate can be satisfactorily consumed in practically any vessel, certain cups with matching saucers have evolved in Mexico over the centuries to suit their approach to hot chocolate in particular. The Mexican cup is decorated with traditional ornamentals and has no handle. Its relatively wide brim allows for more foam on the top, which brings out the aroma. A variation of this cup can be made by infusing Fijian traditions into its design and the result should be possible for any potter to produce without difficulty.

***Coconut-shell cups:*** Ceramic cups may offer the best qualities for consuming hot chocolate, but for consuming “cold” chocolate, a cup made from the shell of a coconut (reminiscent of the traditional *kava* cup) offers an alternative to the ceramic cups. Although it does not retain the heat as efficiently, it works fine for hot beverages as well. Fijian designs can be engraved on the outside and when placed on a table it can be supported by a twined or plaited ring made from *pandanus*, a plant common to the tropics whose sword-shape leaves are used to make mats and baskets. Such cups and supporting rings are without difficulty made by a large part of Fiji’s population.

***Molinillo:*** A long wooden whisk with rings attached to the bottom that spin when the whisk is rubbed between the palms, creating a cap of foam on top of the chocolate drink which helps bringing out the aroma and minimizes the skin that forms on its surface. It can be made in different versions, from advanced models with rings to less sophisticated ones with no rings.



Figure 6: A Mexican *molinillo*.



Figure 7: A Mexican coconut-shell cup

### 3.5. Target groups

When the desired products are achieved to everyone’s satisfaction they have to find their way to the potential consumers and customers. In this case there are two major groups of potential consumers, whose demands and requirements command the appearances of the products depending on their purpose. The first group consists of Fijians of modest means, constrained by their limited economic resources from buying imported goods. These can purchase the domestic chocolate products for a farm-gate price, set by the market forces’ supply and demand on local markets. By spending a minimal amount of money on packaging and design, the price is kept to a minimum, making it accessible to the vast majority of the people.

The second group consists of tourists and visitors to the Fiji Islands in search of domestic and original products associated with Fiji, plus more affluent Fijians and permanent foreign residents. If the chocolate is sold as a beverage kit in an adequate packaging containing not only the chocolate, but also a very brief history of Fijian cocoa farming, from which bean type it is produced, a signature or seal from its producing cocoa farmer, cups made from coconut shell and a wooden *molinillo* whisk, it would rightfully justify a higher price in tourist shops; a price which increases the margin of profit significantly for the cocoa farmer. The money transferred from the second group to the cocoa farmers' households will produce a higher general turnover in rural areas and thus generate increased welfare in the area.

### 3.6. Marketing strategies

This project aims to promote and encourage a whole culture surrounding cocoa and chocolate, and not only the products deriving from it. A benefit from this is an indirect function of the culture itself as a marketing tool. The foundation for a sustainable development of such a culture is already present in Fiji in the form of its natural resources and prerequisites: ingredients (cocoa, sugar, vanilla, cinnamon *etc.*), producers (cocoa farmers), retailers (souvenir shops, central municipal markets, peri-urban and rural satellite markets), infrastructure, and a chocolate and cocoa consumption, albeit modest. The following marketing arrangements will be performed on location:

- Differentiation of the products by promoting the products for what they are and emphasising their benefits; a wholesome high quality Fijian alternative to imported equivalents, made from the country's own agricultural and natural resources providing additional income to farmers in an exposed position. This gives it a competitive advantage while creating its own high value niche.
- Public and official dissemination of information about the project offers a positive side-effect in the form of indirect advertisement. Documentary, Internet Website, media coverage and meetings with officials in the sectors concerned all provide effective marketing tools. A different, but efficient way of approaching public dissemination is to encourage public schools to devote a day to a particular theme or topic, in this case cocoa and chocolate, focusing on information on health benefits associated with high content of cocoa solids and moderate sugar consumption, demonstrations of small-scale domestic chocolate making and general information about the crop *Theobroma cacao*.
- Information meetings and bilateral communication with a wide range of potential retailers and merchants (*e.g.* the purchasing managers at tourist centres and souvenir shops) in order to most effectively meet realistic reciprocal expectations and adapt to current and desired conditions. Involving retailers in the process from an early stage together with producers (cocoa farmers) and distributors ensures an interdependent relation which promotes a constructive progress of the project. This will more effectively prepare the products to match the customers' expectations and demands, especially concerning flavour preferences.

### 3.7. Co-operative collaboration

Using the ability to solve problems collectively has always been a key factor in facilitating existence and making progress for mankind. This project is no exception and a functional collaboration among local cocoa farmers is crucial in order to accomplish the objectives of this project. By implementing co-operative ideas and methods of working collectively cocoa farmers can improve their conditions at the same time as they create opportunities, not only for themselves, but also for exporters and others within the cocoa industry. Co-operation offers the possibility to be in proper control of your own situation and to exert the adequate influence which may be required to make necessary adjustments, as well as it offers the opportunity to participate in creating the prerequisites for your own labour.

The *Tailevu Province Cocoa Growers and Producers Co-operative Association Limited* is a society duly registered under the Co-operative Societies Act and having its registered office in Nausori, Fiji. This co-operative functions as the sister group to Swedish NGO Cocoa Bello during the knowledge and cultural exchange project ***Cocoa – from farming to retailing***. It must be revised whether this co-operative has the right foundation or necessary qualifications on which to develop an efficient co-operative in line with future anticipations, or if it must be complemented with necessary and adequate expertise in specific areas. An organized and efficient cocoa growers' co-operative increases its potentials in trading and communicating with middlemen and produce traders, and by doing so it can also more effectively meet the market's demands. Throughout the Pacific region the absence of middlemen has been a weakness in the marketing chain<sup>32</sup>. They play an important role in facilitating market development and operation, tasks which initially and partially may well be transferred to the responsibility of a cocoa growers' co-operative. Farmstead and household resources ought to be devoted to producing rather than marketing. Furthermore a co-operative can function as a guarantor by setting a quality grade labelling for the locally produced cocoa products, which certify the maintenance of uniform standards. Another issue which must be resolved is how the co-operative should dispose a collectively owned cocoa grinder machine.



Figure 8: Agricultural Officer Mrs. Tepola Seniloli in the cocoa plantation.

<sup>32</sup> McGregor, 1999. pp. 32-33

## 4. Documentation

### 4.1. Documenting the project: methods and objectives

Documentation of the project in different forms will not only provide the financial supporters of this project with a thorough insight in its progress, but also further benefit the Fijian cocoa farmers and their economy indirectly through raising public awareness. By informing the public about the project via the media (documentary, Internet Website, journalistic coverage in press, radio and TV) and keeping officials informed, the chocolate products will reach a wider public and generate a larger turnover. It also increases the potentials of spreading the products to tourist and souvenir shops around Fiji. Furthermore it adds to the prospects this project has to serve as an example and source of inspiration to other cocoa farming districts, households where cocoa is part of a self-sufficiency farming system, or other similar projects. What adds to this importance is that Fiji is often presented as a model for other Pacific island countries to emulate.

### 4.2. Documentary

An optimal way of documenting this project is by film documentation, which brings the viewers as close as it gets to the actual real events without being present themselves. We are planning to make a documentary of the project in which we can tell the story of the project in our own words, without having to sacrifice perspectives and depth through the external media's limited formats, which usually disables in-depth and wide-perspective coverage due to limited space and restricted time-frame. What we would like to present is a thorough and unbiased insight into the progress of the project, narrated from a comprehensive and easily intelligible perspective while focusing on the cocoa farmers, the available resources and the fact that some things are not as complicated as they may seem initially. As music characteristics are usually integrated with a culture and play an important role in national identities, we also intend to promote Fijian music by using its distinctive attributes to support the pictures where appropriate in the documentary.

A film documentary can function as a springboard for attracting public attention onto, and to, the Fiji Islands. Few people know the process of making chocolate and showing the public how it is done and that this new product exists would boost the whole purpose of the project. Wholesalers and businessmen, tourists and visitors as well as the general public, would know that 100% domestic Fijian chocolate is accessible in Fiji, in addition to imported stock. Fiji itself has only one national TV channel, Fiji ONE, which makes screening an influential tool to inform and educate that part of the population with access to TV. Further screening in other countries would of course raise awareness and a public demand could in the long run be created even amongst visiting tourists.

### 4.3. Internet Website

Information about Fiji Chocolate Culture – A Swedish-Fijian Community Development Project is obtainable at the Cocoa Bello Internet Website [www.cocoabello.org](http://www.cocoabello.org). It has been set up to provide the public and interested parties with general information about the project, updates on its progress, participators, retailers, contact information *etc.* The platform for the Website is offered by Swedish chocolate manufacturer Lödahus Chokladkultur and it is available in Swedish as well as in English. It is hosted as a sub-domain on their site at no charge as part of the Cocoa Bello sponsor program.

### 4.4. Journalistic coverage

Public dissemination of information about the project through journalistic exposure in radio, TV and press are as stated in 4.1 valuable and necessary channels in reaching the public and creating an interest, thus further benefiting the outcome if the project. An important part of the project is to make use of these channels fully; therefore we will use our established network, not only to assist the media with information, but also to take an active role in media exposure by promoting the project and producing material for radio and press, both in Fiji and Sweden. To optimize the prospects of successful dissemination of information through the media we will consult Fijian expertise on location.



**Figure 8: Cocoa farmer Mr. Ilai Nabobo and Agricultural Department officer Mrs. Tepola Seniloli in front of the Nabobo homestead and the cocoa bean dryer.**

## 5. Organizational structure

### 5.1. Team composition and consultant network

The organizational structure is composed of a Swedish executive team of development aid workers which will work in consultancy with a network of collaborating experts on location in Fiji. To ensure the best possible productive progress of the project consultants and representatives are engaged from all parties concerned, as well as appropriate authorities. The Swedish executive team constitutes a flexible and efficient unit of members from the non-profit organization Cocoa Bello, offering interdisciplinary qualities set up of people with experience from similar projects and working together before. Additional close integration of cocoa farmers, adequate expertise and personnel from the Fiji Ministry of Agriculture division AgTrade into this group during specific phases of the project will further enhance the prospects of a successful outcome.

## 6. Summary

### 6.1. Evaluation and benefits

Small holder cocoa production as part of a self-sufficiency farming system requires few if any purchased inputs and places few demands on household labour, yet they offer a guaranteed return to effort and production is considered low risk<sup>33</sup>. If the right entrepreneurial incentives can be infused into the Fijian cocoa industry, combined with the principles of sustainable development, the negative trend of diminishing production can be reversed. It is important to keep in mind that a sustainable new culture, such as drinking chocolate and its manufacturing, must develop naturally, even though being nurtured by adequate incentives and assistance to all parties concerned. Of equal importance is the active participation of the cocoa farmers, the foundation of the project, who at all circumstances must be comfortable with the new ideas. By conforming to these conditions and by making use of crops and already available resources a new culture in Fiji could be born. A culture which offers not only rural development and minimized dependence on foreign imports, but also new domestic chocolate products containing a high nutritional value, entirely made from Fijian agricultural produce with characteristic Fijian ingredients, to the great majority of people of limited means to enjoy a wholesome and nutritious beverage so commonly associated with luxury.

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<sup>33</sup> McGregor, 1999. p. 9

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