Fighting malnutrition in Madagascar: from NGO to social enterprise

Lutter contre la malnutrition à Madagascar : de l’ONG à l’entreprise sociale

Combatir la malnutrición en Madagascar: de la ONG a la empresa social

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This paper was written in the context of a mission performed from June to July 2012 for GRET and for Nutri’zaza in Madagascar.

Abstract. In Madagascar, more than 50% of children under 5 years of age suffer from chronic malnutrition. The physical and cognitive consequences are irreversible after 24 months. GRET’s Nutrimad program addresses this problem by distributing an enriched flour product—“Koba Aina”—for children between 6 and 24 months. In order to reach the poorest households, it is sold very cheaply via an innovative sales network, the Hotelin-Jazakely (restaurants for babies), set up in the most deprived districts. In parallel, nutritional education campaigns are aimed at the mothers, who are often misinformed about the nutritional needs of their children. The level of maturity attained by the program is such that GRET now plans to continue with it over the long term. A privately-owned company, Nutri’zaza, is due to be created shortly to pursue Nutrimad’s activities, helping the project to achieve the economic viability that it currently lacks. By embedding Nutri’zaza’s work in a social enterprise, GRET hopes to secure the future of the initiative and enable it to expand throughout the country.

Keywords. Child malnutrition, Madagascar, Social enterprise, BoP, Selling to the poor, Corporate social responsibility, Entrepreneurship

1. Causes and consequences of child malnutrition in Madagascar

1.1 Chronic malnutrition: the figures

In Madagascar, 50.1% of children under 5 suffer from stunted growth (according to the demographic and health survey DHS IV, 2008-2009), also known as chronic malnutrition. This emerges as the underlying cause of 35% of infant and child mortality (The Lancet, 2008). In addition to the impact on children’s development, which is heavily determined by the first 2 years of life, and on their resistance to disease, chronic malnutrition leads to irreversible cognitive damage after the age of two. The window of opportunity to combat this phenomenon is therefore limited essentially to the 24 months following conception.

Table 1. Prices of products available in Madagascar for children of 6 months and over

<table>
<thead>
<tr>
<th>Products</th>
<th>Blédina</th>
<th>Cérélac</th>
<th>Farilac</th>
<th>Koba Aina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price of a 35g serving</td>
<td>AR 1265</td>
<td>AR 1136</td>
<td>AR 700</td>
<td>AR 150</td>
</tr>
<tr>
<td>% of daily budget for 2 meals a day, based on minimum salary</td>
<td>76%</td>
<td>68%</td>
<td>42%</td>
<td>9%</td>
</tr>
</tbody>
</table>

While chronic malnutrition is a multi-factorial problem, the main factor appears to be the poor feeding practices adopted by most Malagasy mothers. Although breast-feeding is common practice, mothers tend to diversify their children’s food too quickly, before the children are 6 months old. Children are fed mainly on rice-based dishes, or with other foods whose low nutritional value—combined with the frequency of meals—cannot meet their needs. This is due primarily to the mothers’ low level of knowledge about the specific needs of young children. The symptoms of malnutrition are mostly invisible to the untrained eye, offering mothers little by the way of early warning signals about the state of their children’s health. Moreover, the high-quality food supplements for babies that are available on the local market (Blédina, Nestlé, Farilac, etc.) are expensive,
beyond the reach of most households. On top of which the people of Madagascar have a strong traditional attachment to rice, which is their main staple food, and children are expected to adapt to it at a very young age.

1.2 A major barrier to development

Child malnutrition is a powerful barrier to development. The irreversible damage it causes to cognitive development seriously hampers the professional potential of the individuals concerned. As a study published by The Lancet in 2008 shows, children affected by malnutrition are more likely, as adults, to attain lower educational levels, to achieve lower occupational status and to earn lower incomes. Poor health and greater exposure to poverty are transmitted from one generation to the next, giving the problem a cyclic character. According to the World Bank, on a global scale, the impairments caused by malnutrition represent a loss of 2 to 3% of GDP.

1.3 The powerlessness of governments to deal with the problem

For these reasons, the returns generated by investments aimed at combatting malnutrition are among the highest, according to the ranking established by the Copenhagen Consensus. And yet national funding for the fight against malnutrition remains low. This is partly due to the multiplicity of good causes competing for scarce financial and human resources. The cost of such programs remains out of reach of the government of Madagascar, where the annual cost of a program to prevent chronic malnutrition by distributing free daily food supplements for children between 6 and 24 months can be estimated at 96 million euros: equal to 110% of projected operational costs caused by malnutrition represent a loss of 2 to 3% of GDP.

1.4 Private initiatives

The importance of this barrier to development has led some actors in the private sphere to come up with new solutions to combat child malnutrition in Madagascar over the long term. JB, for example, drawing on its experience in the agrifood industry, joined the PlumpyField network in 2009. Under the brand name Tanjaka, created for the occasion, JB now produces and markets foods similar to Plumpy, initially developed by the Nutriset group.

In so doing, JB seeks to leverage its industrial and commercial skills, and its established logistics network, to offer high nutritional value-added products to the very poor at affordable prices.

About ten years earlier, GRET—a French NGO active in Madagascar since 1988—and the IRD (Institut de Recherche pour le Développement) were grappling with the question of how best to compensate for the shortfalls in the diet of Malagasy children. After developing an enriched flour product for children, designed as a food supplement for children aged 6 to 24 months, GRET, its institutional partners in Madagascar, and the IRD built up an innovative network to communicate about the nutritional needs of young children and to sell the product at a price adjusted to the low incomes of Malagasy households.

This paper sets out to illustrate in which ways the social enterprise model can be seen as complementary to government-led anti-malnutrition programs.

2. Koba Aina and its distribution in the Hotelin-Jazakely network: the Nutrimad program

2.1 The design of a suitable and affordable product: Koba Aina

The program set up by Nutrimad—the Madagascar branch of Nutridev, which encompasses GRET’s and the IRD’s nutritional programs—began with a study conducted in rural and urban areas between 1997 and 2000, which highlighted the diversity of the causes of child malnutrition in Madagascar. Poor nutritional awareness among mothers, lack of time and appropriate utensils in households, unavailability of products on the market: these causes are both socio-anthropological and economic. GRET developed the conviction that these issues had to be addressed in a holistic way. Nutrimad set itself apart from existing programs through the dual dimension of its action: the nutritional education dispensed by its programs was backed up by the marketing of a product suitable for young children, and at a price the great majority of the population could afford. Koba Aina (literally “flour of life”), a flour product formulated specifically for children of 6 to 24 months, was developed as part of a collaboration between the IRD and the University of Antananarivo. Designed as a response to several of the underlying causes of malnutrition, it combines several essential qualities. Firstly, it offers nutritional qualities indispensable to healthy child development, thanks to its vital supplements; it consequently complies with all the applicable standards. Secondly, 99% of it consists of local agricultural products such as maize, rice, soya and groundnuts, it suits local tastes. Finally, it can be prepared quickly, easily and safely: the flour is mixed with cold water, and the mixture is brought to the boil for 5 minutes, to prevent the risks linked to contaminated water. Daily consumption of two 35g rations between 6 and 12 months, and of three daily rations between 12 and 24 months, covers 39 and 56% of energy needs respectively and about 50% of recommended daily intakes, the rest being provided by breast-feeding. Produced by TAF, a major local agrifood company, Koba Aina is distributed through an innovative sales network: the Hotelin-Jazakely (restaurants for babies), the first of which opened in 2000.

2.2 How the distribution network operates

The Hotelin-Jazakely are located in the more populous districts of Madagascar’s cities. Each one theoretically covers an area inhabited by 400 “target” children (6 to 24 months). In the Hotelin-Jazakely, customers eat pre-prepared meals on the premises, or buy sachets to eat later. Whichever format they choose, one helping represents 35g of flour and sells for 150 ariary (€0.05).
Each Hotelin-Jazakely is entirely managed by one or two women, known as “animatrices”, who perform all the tasks at the Hotelin-Jazakely: upkeep, preparing the Koba Aina, and handling sales. They also perform “mobile rounds”, selling prepared rations or sachets at the customer’s home. In keeping with the product’s positioning as a complete meal, the mobile rounds have to be performed at mealtimes. The animatrices are given complete autonomy in the organization of their rounds: these must be sufficiently regular to retain customers, while maintaining the ability to reach out to new “targets”. The animatrices are recruited from the districts where they work, giving them crucial legitimacy among local mothers. As well as selling the product, they perform an educational role: they have to convince mothers that it is in their children’s interest to eat Koba Aina rather than the family meal. Their effectiveness is ensured by the remuneration system: they are not employed by GRET; instead they receive a commission of 25 ariary (16%) per ration sold.

They pick up their supplies from the program office every week: 1-kilo bags, which can be used to make 25 to 28 rations, and 35-gram sachets, which they sell directly.

Money terminal and deposit the amount of their sales, which is transferred directly to Nutrimad’s account. Their profit margin is paid out weekly or monthly, as they prefer.

Given the substantial autonomy granted to the animatrices, quality control is of key importance. Spot checks are used to prevent over-dilution of the flour, in case an animatrice is tempted to increase her income to the detriment of the nutritional value of the rations sold.

The animatrices are also supervised by coaches (roughly 1 coach per 8 animatrices), who act as their primary points of contact: the coaches accompany them regularly to help them cope with the difficulties of selling. To stimulate sales, the coaches and animatrices are given volume targets (2700 rations a month). The animatrices are also free to sell sachets to local grocery stores, which then sell them on. Some of the women work on stands rather than at the Hotelin-Jazakely, while others only do mobile rounds, selling 35g sachets.

2.3 Nutritional education actions

As well as selling Koba Aina, the animatrices are entrusted with a nutritional education mission. The personal relationship built up by the animatrice with the mothers in her district, whether on her rounds or at the Hotelin-Jazakely, makes her the go-to person for these mothers on questions of child nutrition. She dispenses advice on the right practices to follow, depending on the age of the child, and proposes Koba Aina as a suitable food supplement. Weekly weighing sessions are also organized at the Hotelin-Jazakely. The nutritional education leaflets handed out at these sessions enable the mothers to monitor their child’s weight and compare it with the “normal” development for their age. Finally, “animations Koba Aina” are organized around these regular events, where mothers can come and try the product, learn how to prepare it, and receive nutritional advice.

2.4 Changing management models: the problem of oversight

The Nutrimad service has been through several successive modes of management, corresponding to different attempts by GRET to make the program autonomous. Up until 2006,
GRET took full management responsibility, in order to bring the program to a certain level of maturity. At that point, the organization wanted to hand over the management of the service to the animatrices, its key human resource, in order to develop something akin to the cooperative model. However, the animatrice groups or “associations” set up by GRET for that purpose in each city proved to be ill-suited to managing the service. The model did not correspond to any desire on the part of the animatrices. When faced with governance problems, they continued to rely on GRET, which was only supposed to offer general guidelines. This failure gave rise to the creation of a second association in 2008, bringing together the Nutrimead program’s supervisory staff, mainly the coaches. This model also failed: although sales remained level, problems emerged with management, culminating in the embezzlement of the program’s funds. The associative model having proved ineffective on two occasions, mainly due to the difficulty of finding efficient, responsible managers, GRET opted for a new mode of management in 2010: the social enterprise model. The service was, from then on, managed by GRET staff along standard business lines. The project was baptized Nutri’zaaza, and is scheduled to become a privately-held company in 2012.

3. Difficulties encountered

3.1 Inertia of consumption habits

Despite the multiple benefits of the service offered by Nutrimad, the level of consumption of the product per child often remains relatively low. In fact, few children eat more than one ration a day. The first obstacle to achieving the consumption frequency recommended by Nutrimad is the price: initially 60 ariary (€0.02), it rose to 100 ariary (€0.04) in 2007 and to 150 ariary (€0.05) in 2009. These successive price hikes were a response to inflation and to questions of product positioning. While the price of a ration remains some 5 times lower than that of imported products of the same type—and for higher nutritional value—it still represents a significant outlay for poor Malagasy households, of which 68% survive on less than $1.25 a day (UNICEF, 2009). And despite the nutritional education effort, many mothers continue to see the shared family meal as an alternative to buying specific foodstuffs for their children. Consequently, due to inertia in eating habits, Koba Aina is often limited to ad-hoc consumption, notably as an afternoon snack. Mothers also prefer to vary their children’s food after a certain age. More deeply anchored habits: the marketing dimension is essential. Sales leveled out in 2007, and GRET was faced with the limits of its experience in the commercial field.

For this reason, in 2007 and 2008, GRET and Blédina entered a partnership to pool their human resources and respective expertise in order to improve the economic performance of Koba Aina sales.

Blédina’s expertise, as Danone’s child nutrition subsidiary, helped to consolidate the marketing approach to the project. The aim was to create a brand image for Koba Aina. Several approaches were adopted, such as defining a clear positive positioning for the product or improving the packaging and design. The new Koba Aina logo, for example, was displayed on working uniforms and tools, to reinforce brand recognition. The partnership had to be brought to an end, for reasons beyond the control of either party, but there was a strong positive impact for Nutrimad: sales rose significantly in the following years. And Blédina was able to mobilize resources around a motivational project, thus developing its expertise in “bottom of the pyramid” markets. The partnership with GRET led the brand to change the way it communicated about its products in Madagascar. The product descriptions are now more transparent, and help reinforce mothers’ knowledge about their children’s nutritional needs.

3.3 Human resources management

Managing the program’s human resources also brought its share of difficulties. For reasons of cost-effectiveness, the animatrices—the program’s sales force and ambassadors in the districts—are not paid a salary by GRET, but are paid on a commission basis. They consequently benefit from substantial autonomy in their work, but encounter significant difficulties, principally of an economic order. The problem is that a large commission percentage would impact the price of the product and thereby its effectiveness as a tool in the fight against malnutrition. The current commission level is 25 ariary (approx. €0.01) per ration sold. In view of the difficulty of making sales, this level may seem low: some of the animatrices find it hard to meet the set targets and barely scrape a living. Then there is the question of recruitment: how to find women that have the ability to sell sufficient volumes of product? Despite defining a standard profile to help target potentially gifted saleswomen, turnover remains very high (107% in 2011). Many new animatrices, confronted with the difficulties of selling, give up after just a few weeks. There is therefore a basic need for effective training, to enable women to quickly achieve the set sales targets. The training provided was initially very theoretical, but it is now done on-the-job via a pairing system, which seems to be well received by the animatrices. Granting autonomy to the animatrices also involves leaving them to sort out the sometimes thorny issue of the delimitation of sales territories. This would appear to be the best solution, but there are still many conflicts over the allocation of certain customers.
Managing the proceeds is also a delicate issue. Despite using Orange Money, which is designed to facilitate and increase the frequency of money transfers, many problems persist with the recovery of the money by the program’s management. There are unfortunate cases of animatrices being robbed as they walk down the street with the day’s takings. Additionally, animatrices admit to being tempted to borrow the money when times are hard. When this does happen, it leads to disputes with the management. Finally, the animatrices express a degree of discontent with a system they see as too rigid: some complain of being forced to adhere to the opening hours of the Orange Money terminals, and wasting time standing in line there every day. However, while this system does entail a cost (0.9% of transactions) and a number of drawbacks, it allows for a significant reduction in cases of animatrices losing the proceeds, which used to be a frequent occurrence.

4. Costs and results of the program

4.1 Still deep in the red

Today selling Koba Aina—Nutrimad’s core business—is still a loss-making activity. The (negative) difference between the revenues and the costs is recorded in GRET’s accounts as an expense. The activity is therefore heavily dependent on funding from GRET. The program’s financial autonomy is currently non-existent: the deficit is approximately AR200m a year (€74,000).

With 1,936,414 rations sold in the course of the year, sales turnover for 2011 was AR242m (€89,000).

The fixed costs are mainly committed costs (central costs and depreciation) and marketing expenses. These amount to 96% of the sales revenue.

To achieve equilibrium, the volume of sales would need to be significantly increased. The break-even point in terms of sales revenue is 1,600 million ariary, meaning that the program would need to sell 12,820,000 rations merely to cover its fixed costs and break even.

The variable costs include: the cost of buying the finished product from TAF, the transportation costs, the cost of the coal used in preparing the rations, and commission payments to the animatrices. These amount to 85% of the sales revenue.

Table 2. Price breakdown of a ration of Koba Aina

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>2%</td>
</tr>
<tr>
<td>Preparation</td>
<td>5%</td>
</tr>
<tr>
<td>Commission</td>
<td>17%</td>
</tr>
<tr>
<td>Nutrimad margin</td>
<td>9%</td>
</tr>
<tr>
<td>Purchase from supplier (TAF)</td>
<td>67%</td>
</tr>
</tbody>
</table>

Finally, it should be noted that the expenditure recorded as marketing costs is mainly for nutritional education. For example, 30% of this expenditure is used to finance the weekly weighing sessions.

4.2 Impact of Koba Aina sales in the target districts

Koba Aina has gradually made a name for itself as a benchmark product. In Tananarive, the 16 Hotelin-Jazakely and 9 stands give the product high visibility in some of the city’s poorest neighborhoods. According to a study conducted in 2011 (involving 8 districts and 1,400 households), Koba Aina has a recognition rate of 100% among households with children of 6 to 24 months in the target districts. This recognition is due in large part to the work of the animatrices, who have become the go-to people for mothers when it comes to the nutrition of young children. The nutritional education actions, meanwhile, are effective in raising mothers’ awareness of the importance of child nutrition during the first 2 years. As well as reinforcing their knowledge, they provide visibility for the product, which is now seen as the best alternative to the shared family meal.

As a result, the product’s penetration rate among children between 6 and 24 months has grown constantly and is currently at 62%. Regular consumption is still limited, however: according to the 2011 study, only 7.7% of the children who have already eaten the product have a consumption level of at least one ration a day.

The impact of the product in the districts is not limited to children between 6 and 24 months. Indeed, its nutritional qualities are beneficial to people of all ages. It is currently estimated that “non-target” sales, i.e. for people over 24 months, account for between 30 and 50% of total sales of the product. According to some fokontany leaders (fokontany are Madagascar’s smallest administrative units), Koba Aina enables some adults who could only take one or two meals a day to have an inexpensive midday meal without losing time.

5. Nutri’zaza: a social enterprise to pursue Nutrimad’s activities

5.1 A limited company incorporated in Madagascar

The level of maturity attained by the program is such that GRET now plans to continue with it over the long term. To secure the future of Koba Aina sales, the NGO is behind a project to create a privately-owned limited company based in Madagascar, Nutri’zaza, whose corporate mission will be to combat child malnutrition by continuing Nutrimad’s activity. The primary objective of the company, which will be set up in September 2012, is to make the Nutrimad program independent from the donations that currently keep it afloat. By investing large sums in the program, the shareholders are setting themselves the goal of achieving financial equilibrium within 5 years. After that time, the break-even subsidy granted by the AFD, which will support the company from its creation, will come to an end. The management of the program will therefore become independent from GRET. However, the NGO will remain closely involved in the decision process: it will be the company’s main shareholder with a 34% holding, and will provide the chair for the board of directors. This will give it significant influence in the definition of the company’s strategic and social orientations and mode of governance. GRET intends to use that influence to make sure that
Nutri’zaza’s goal will not be to make profits, but rather to hold on to the social purpose of the company: for 2%, the 5 shareholders are agreed on the social purpose of the company; for 22%, TAF for 20% and APEM (Association pour la promotion de l’entreprise à Madagascar) for 2%. The 5 shareholders are agreed on the social purpose of the company: Nutri’zaza’s goal will not be to make profits, but rather to fight child malnutrition. The chosen model is that of the social enterprise. Consequently, the shareholders agree not to receive dividends beyond the amounts initially invested. All profits will be directly reinvested into the company, to expand and improve the Hotelin-Jazakely network. Nutri’zaza will be managed and supervised by the GRET staff currently working on the Nutrimad project. They will resign from their jobs in order to become employees of Nutri’zaza. The supervisory structure of the activities will therefore remain practically unchanged, and continuity will be assured.

5.2 The expansion of the program and the quest for profitability

Nutri’Zaza has set itself the target of achieving financial autonomy within 4 years. Several levers will be mobilized: expanding the Hotelin-Jazakely network, improving sales of Koba Aina to NGOs and, finally, developing the sale of Koba Aina in conventional retail networks.

The business plan provides for the opening of additional 60 Hotelin-Jazakelys by 2015, at a pace of 20 openings a year over 3 years.

Nutri’Zaza will also invest significant efforts in developing the NGO sales circuit: Koba Aina is sold in the form of 1kg bags to NGOs that distribute free food to destitute populations. This circuit is not yet sufficiently developed; it represented only 15% of total sales in 2012. It is of particular interest, however, in that it combines social impact with profitability. By offering a quality product at a low price, Nutri’Zaza provides a useful solution for NGOs fighting malnutrition. The product can then get through to children in the most deprived categories of the population, who are out of reach of the Hotelin-Jazakely network. This market, accessible at lower cost, represents a large potential volume.

Finally, a new sachet format will be marketed via the conventional retail networks, aimed at more affluent categories of the population. Its 50g weight and better-quality packaging are aimed at groups with greater spending power. This investment, with its lower social impact, will therefore have profitability as its primary goal.

5.3 Securing the project’s social vocation

The creation of the company reflects the desire to boost the project’s social impact. However, bringing in private capital generates immediate tension between the profitability necessary to the firm’s survival and its ability to expand and fulfill its social purpose.

Firstly there is the question of the established net profit margin. Affordability, after all, is the cornerstone of the product’s social utility, and so difficult trade-off decisions have to be made. Larger margins mean greater profitability. The economic asset could consequently grow, and the program’s scope could be expanded along with the network. However, larger margins will inevitably impact the price of the product and/or the remuneration of the animatrices. Conversely, lower margins condemn the company to stagnation. During the initial years, devoted to the quest for financial equilibrium, the plan is to peg the price of the product to that of the raw materials from which it is made.

That invites another question: under what conditions is the company to become profitable? A large increase in sales volumes is not synonymous with social impact. The product has to reach the target populations, i.e. households in Madagascar’s most modest neighborhoods, and particularly children between 6 and 24 months. Once again, there is a delicate balance to be struck. Consumption of Koba Aina is beneficial at any age, and its sale to more affluent populations is a key factor in the project’s economic viability. However, the goals of reaching break-even point and of expanding the network must not be achieved by sacrificing the affordability of Koba Aina for the greater number. Resource allocation is therefore a key problem: for Nutri’zaza, it is about defining just how much time and money it intends to invest in the primary pursuit of its target.

All of these questions around the creation of a private company have generated a degree of wariness among some of the existing stakeholders, for whom enterprise equates to profits and private interests. The absence of dividends is not sufficient to guard against the potential problems involved in privatizing the program. Achieving profitability means investing in sales circuits whose social impact will be less significant than that of the Hotelin-Jazakely network. The new product positioning to be created for that purpose risks being assimilated to a quest for “shareholder value”, and Nutri’zaza needs to ensure the support of its partners, especially the local authorities, who grant concessions of land or premises for the Hotelin-Jazakely.

For all of these reasons, the question of the company’s mode of governance is crucial. Nutri’zaza needs to be able to evaluate its social impact, in terms of inputs as well as outcomes, and to produce regular reports. The company will therefore set up an ethics and surveillance committee, made up of GRET’s former institutional and technical partners in Madagascar on the Nutrimad program. The committee will play a consultative role, and will publish an annual report on the company. To this end, Nutri’zaza will draft a white paper listing the social indicators that it plans to use every year for its evaluation. Four axes have been defined. The first will be to describe in detail the proposed service: product price breakdown and the expansion of the Hotelin-Jazakely network. The second will list the resources implemented (i.e. nutritional education actions) to target children of 6 to 24 months. The third will quantify the nutritional impacts: the number of people reached by the product and the consumer profiles. The final set of indicators will focus on the.
animatrices: working conditions and earnings relative to market incomes. With these indicators to guide it, the ethics and surveillance committee will be the long-term guarantor of Nutri’zaza’s continuing social mission.

References


