

STRENGTHENING CONSUMPTION OF FORTIFIED FOODS TO FIGHT AGAINST MALNUTRITION

*Feedback from the experiences of the Food fortification programme
for vulnerable populations in Madagascar (2017-2021)*



THE “CAHIER PROJET” COLLECTION aims to succinctly share the experiences of projects conducted by GRET and its partners. In a brief format, it gives an overview of project results (context, approach, interests, technical and economic assessments, etc.) and corresponding recommendations. Texts are enhanced with visuals and brief feedback from stakeholders involved in the development and implementation of projects.



STRENGTHENING CONSUMPTION OF FORTIFIED FOODS TO FIGHT AGAINST MALNUTRITION

*Feedback from the experiences of the Food fortification
programme for vulnerable populations in Madagascar
(2017-2021)*

NUTRIDEV, A PROGRAMME FIGHTING AGAINST CHILD MALNUTRITION FOR MORE THAN 25 YEARS

GRET has been working since 1994 in the fight against child malnutrition, in particular its least visible form: chronic malnutrition. Conducted in partnership with the French National Research Institute for Sustainable Development (IRD), the Nutridev programme (www.nutridev.org) strives to sustainably prevent malnutrition with a view to reducing poverty. Today, the programme is being implemented in some ten countries across the world, targeting young children and women as a priority. The Food fortification programme for vulnerable populations in Madagascar (PFOA), co-funded by the Programme for innovative nutrition education in poor urban areas in Madagascar (Penim), is part of Nutridev.

Authors: Pauline Caclin, Clémence Boulle Martinaud, Andrimampionona Razakandrainy

Contributors: Alisoa Randrianarivo, Eulalie Ranaivosoa, Claire Kabore

Reviewers: Mandresy Randriamiharisoa (Nutri'zaza), Auxane Gennetais, Christiane Rakotomalala, Olivier Bruyeron, Marie-Christine Lebret

Publication: Marie Camus, Véronique Beldame, François Enten

Editorial managers: François Enten, Marie Camus

Translation from French: Jenny Gilbert

Layout: Nancy Cossin

Photographs: © GRET

© Éditions du Gret, 2021

To quote this publication: Caclin P., Boulle Martinaud C., Razakandrainy A. (2021), *Strengthening consumption of fortified foods to fight against malnutrition: feedback from the experiences of the PFOA project in Madagascar (2017-2021)*, Nogent-sur-Marne, Éditions du Gret, 52 pages, Cahier projet

CONTENTS

| | |
|---|-----------|
| Abbreviations and acronyms | 4 |
| INTRODUCTION. FROM PROJECT FIGHTING AGAINST MALNUTRITION TO MULTI-SECTORAL PARTNERSHIP | 5 |
| PART 1. MAKING FORTIFIED FOODS ACCESSIBLE | 7 |
| Action-research to develop a fortified products offer | 7 |
| Social marketing to distribute fortified foods to as many people as possible | 14 |
| Conclusion | 23 |
| PART 2. IMPROVING KNOWLEDGE, ATTITUDES AND PRACTICES IN TERMS OF FOOD AND NUTRITION | 25 |
| A strategy based on an indepth diagnosis of the context | 26 |
| An outreach campaign: face-to-face awareness-raising | 28 |
| A customised innovative campaign: awareness-raising messages via mobile phone | 35 |
| A national campaign: reaching as many people as possible | 37 |
| Conclusion | 39 |
| PART 3. STRENGTHENING THE NATIONAL PUBLIC POLICY ON FOOD FORTIFICATION | 41 |
| National discussion platform: reactivating a framework for multi-stakeholder consultation | 41 |
| Standards, regulations and certification: supporting the development of a legislative framework | 42 |
| Conclusion | 45 |
| CONCLUSIONS AND RECOMMENDATIONS. PUBLIC-PRIVATE PARTNERSHIP FOR GREATER SUSTAINABILITY | 47 |
| Involvement of the private sector in the fight against malnutrition | 47 |
| Innovative awareness-raising methods | 48 |
| Standards necessary to control the market | 48 |

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

ABBREVIATIONS AND ACRONYMS

| | |
|--------------|--|
| ANFA | National Alliance for Food Fortification |
| BNM | Madagascar Standards Agency |
| IRD | French National Research Institute for Sustainable Development |
| KAP | Knowledge, Attitudes and Practices |
| ONN | National Nutrition Agency |
| PENIM | Programme for Innovative Nutrition Education in Poor Urban Areas in Madagascar |
| PFOA | Food Fortification Programme for Vulnerable Populations in Madagascar |
| PNAN | National Action Plan for Nutrition |

INTRODUCTION

From project fighting against malnutrition to multi-sectoral partnership

In Madagascar, malnutrition is still very widespread, in particular among women and children: almost 42% of children under the age of five are affected by chronic malnutrition¹ and 35% of women of childbearing age are anaemic². Less visible and more forgotten than acute malnutrition, chronic malnutrition manifests itself by delayed growth and is associated with a risk of delayed cognitive development, as well as poor health and higher vulnerability to illness. After the age of two, it leads to irreversible consequences.

Insufficient consumption of nutrition-rich diversified food over the long term is one of the causes of chronic malnutrition. This phenomenon is mainly related to difficulties in accessing affordable quality products, but it is also due to populations' poor knowledge of recommended nutrition practices.

Since the 1990s, GRET has been working in Madagascar to improve infant feeding. In 2002, together with the French National Research Institute for Sustainable Development (IRD) and Malagasy company TAF, it has been producing a complementary food for children aged 6 to 24 months: Koba Aina infant flour. In order to extend its actions and make them sustainable, it founded and – from 2013 to 2018 – supported the first social business to fight against malnutrition in Madagascar: Nutri'zaza³. Although GRET and its partners demonstrated that the social business approach was a pertinent solution to sustainably improve child nutrition, this approach still needs to be consolidated by working in stakeholder coalitions (State, civil society, research, local private sector).

In parallel, the Malagasy government included food fortification in its national nutrition policy in 2004, with actions geared towards the private sector in its third phase of the National action plan for nutrition (PNAN III). The Food fortification programme for vulnerable populations in Madagascar (PFOA) is part of this dynamic. GRET conducted the programme from 2017 to 2021 in partnership with the Nutri'zaza company and other stakeholders in the public and private sectors, civil society and research. Aiming to strengthen the nutrition status of populations suffering from micronutrient

1. Banque mondiale, *Prévalence de la malnutrition, taille selon l'âge (% des enfants de moins de 5 ans), Madagascar, 2018*, <https://donnees.banquemondiale.org/indicateur/SH.STA.STNT.ZS?locations=MG> [consulted on 5 April 2021].

2. Instat, ICF Macro (2010), *Enquête démographique et de santé de Madagascar 2008-2009, Antananarivo, Madagascar, Instat, ICF Macro, 444 pages.*

3. Bouille Martinaud C., Bessières M., Arnaud L., Rabearimanana O., Rakotomalala C. (2018), *L'assistance technique pour accompagner les premiers pas d'une entreprise sociale : Nutri'zaza à Madagascar, 2013-2017, Nogent-sur-Marne, GRET, 34 pages.*

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

deficiencies in the country, in particular children and women, this project contributes to improving access to and consumption of fortified foods. With the support of the European Union, it developed its intervention through three areas of focus, which are presented in this document: marketing of locally produced fortified products that are suited to the Malagasy context (pre-existing products or products created as part of the project), improvement of populations' knowledge, attitudes and practices (thanks in particular to the support provided by the government of the Principality of Monaco via the Programme for innovative nutrition education in poor urban areas in Madagascar – Penim) and strengthening of national public policies on food fortification.

Combining social marketing – including the development of products suited to the needs of target populations – and social communication for behavioural change and advocacy, this integrated strategy is completed by a multi-sectoral and participative approach: as they are directly involved, local authorities and populations take ownership of the project and ensure its sustainability. ●



A ladle of Koba Aina porridge

PART 1

Making fortified foods accessible

To fight against chronic malnutrition in Madagascar, GRET has been focusing for 20 years on the provision and consumption of local quality fortified products, suited to eating habits and available at an affordable price for as many people as possible. This can be achieved by developing and producing foods that meet international standards, and the needs and aspirations of local populations, as well as by distributing and promoting these foods via various channels.

ACTION-RESEARCH TO DEVELOP A FORTIFIED PRODUCTS OFFER

The Koba Aina (“flour of life” in Malagasy) infant flour was developed as part of a partnership between civil society (GRET), research (IRD) and the local private sector (TAF). It has been produced since 2002 by TAF and distributed exclusively by Nutri’zaza. One of the objectives of the PFOA project was to improve its formula to make its consumption easier and more in line with consumers’ expectations.

In parallel, Nutri’zaza and GRET launched an intense research and development phase through the project, in order to expand the fortified foods range with three new products for women of child-bearing age and preschool children (aged 2 to 5), and school-age children (aged 6 to 14). Malagasy children over the age of two and women suffer from the lack of a diversified, balanced diet. This is reflected in particular in high consumption of carbohydrate foods and low consumption of micro-nutrient-rich complete foods (lack of iron in particular among women). For children, this trend is accentuated by the consumption of snacks that are not suited to their nutritional needs: we observe excessive consumption of excessively sweet or salty fatty snacks that are not very varied and generally provide unbalanced nutrient intakes. In light of this, and given that consumption of a snack is a daily habit, the project chose to develop tasty healthy snacks as a complement to diversified food and regular physical activity, and which are better suited to children’s nutritional needs. These products are the result of the multi-sectoral collaboration between GRET, Nutri’zaza, the Labasan laboratory, the University of Antananarivo and Chocolaterie Robert, a Malagasy company.

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

WHAT THE STAKEHOLDERS SAY

Encouraging synergies between sectors of activity to contribute to the fight against malnutrition

“As producer of Koba Aina and shareholder in Nutri’zaza, TAF has a dual role that enabled it to share its experience and resources in a support-based approach. Therein lies the strength of Nutri’zaza, which draws on synergies and exchanges between different areas of activity. Each party contributes its know-how and its expertise for a common vision.

Ultimately, all the stakeholders share a single objective: to provide populations with products that meet their needs and contribute to the fight against malnutrition.”

Anaïs Taloumis, administrator of TAF

● The development process

GRET and its partners began by developing a food for preschool children. The tests conducted and the results obtained during the process served to optimise the development of other products. Identifying the “ideal” product requires an iterative approach searching for the best compromise possible between the expected nutritional impact, a price that is affordable for as many people as possible, and an attractive product (in terms of taste, format, etc.) that takes account of local availability and accessibility of raw materials and production processes.

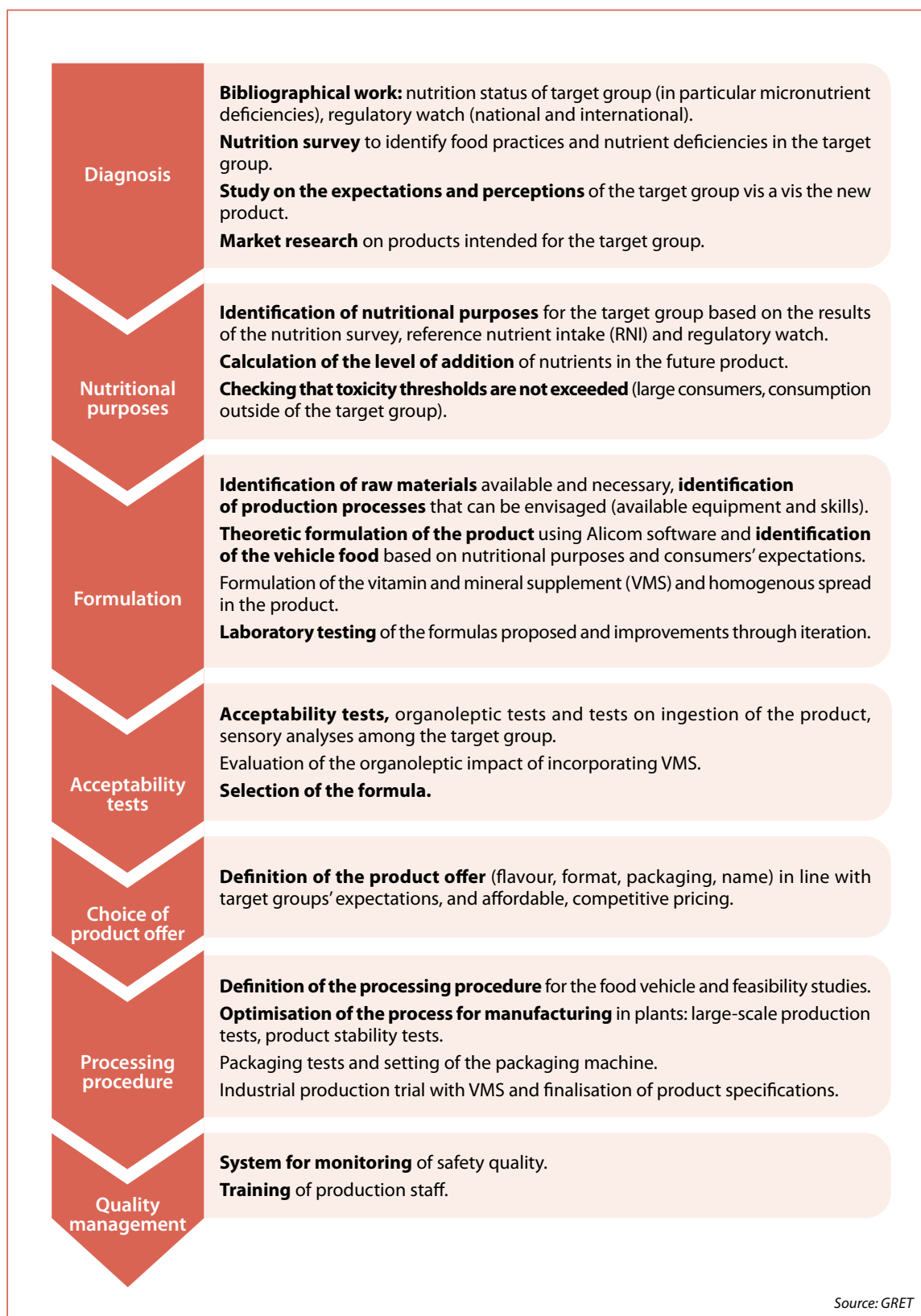


Official launch of PoBary Aina on 24 January 2020 in Antananarivo



Cutting PoBary Aina

Figure 1: THE FORTIFIED PRODUCTS DEVELOPMENT PROCESS



As with every research and development process, the development process was not linear. It was necessary to go back and forth between the various stages, with each modification generating a chain of rectifications. Technical constraints were compounded by constraints in terms of target consumers' expectations and the need to be specifically positioned with regards other competing products available on the market. GRET and Nutri'zaza considered the product offer⁴, taking account of both technical feasibility and appeal for potential consumers.

At the end of the project, only two of the initially planned three products were developed and produced by Chocolaterie Robert using local raw materials.

- **For children aged 2 to 5:** the study and formulation phases resulted in a cereal bar made from chocolate-coated puffed rice, enriched with 19 vitamins and minerals. However, ingestion tests revealed that this food vehicle⁵ was not suitable for the youngest children in the target group, i.e. children aged two, who had difficulties biting into it. Laboratory tests demonstrated it was impossible to retain the texture of the bar while reducing the size of the grains. The profile of potential consumers was therefore redefined to concern children aged 3 to 5, and the nutritional purposes were revised. The product offer was defined based on this target group: a very popular chocolate flavour, a practical 20 g format, quality packaging and an appealing name, reminiscent of the first product in the range and easy to remember: PoBary Aina ("puffed rice of life").
- **For children aged 6 to 14:** a chocolate-orange muesli recipe made from puffed rice and sorghum enabled the development of an innovative nutritious snack in keeping with the expectations of these children and sufficiently distinguishable from the cereal bar for children aged 3 to 5. In this case the product offer proposes a healthy snack that can be eaten from a 25 g bag, easy to carry around and a meaningful name: Moosli Aina ("muesli of life").
- **For women of childbearing age:** the market research and nutrition surveys conducted did not make it possible to identify a food vehicle that was healthy, pertinent and suitable, meeting the needs and expectations of this target group, which could be developed over the duration of the project and sustainably marketed by Nutri'zaza⁶. To make up for this, GRET decided to focus on social communication activities with a view to behavioural change for a diversified, balanced diet, aimed at this target audience as part of the project.



WHAT THE STAKEHOLDERS SAY

Different views for a common vision

"When developing new products, Chocolaterie Robert provided its know-how and its technical and technological expertise. The industrial's point of view on what is and is not possible to do is important. In parallel, Nutri'zaza added its view as a distributor and its own requirements.

It was a very enriching and stimulating experience, which drove us to surpass ourselves. Each party plays its role but we all have the same objective."

Nirina Ramanandraibe, member of the Chocolaterie Robert Management Board

4. Product offer is a marketing term that refers to all of the technical and visual characteristics of a product (a good or a service) provided by an entity to satisfy a need or desire.

5. A food vehicle is a food, dish or drink serving as a support for a fortifier. For example, salt is often a food vehicle for iodisation and oil for vitamin A fortification.

6. Potential food vehicles identified were noodle soups, whose starch content was not recommended for a balanced diet, sweet snacks such as madeleine cakes, too competitive; and a sauce to be added to a dish.



WHAT THE EXPERTS SAY

Quality fortified products accessible for a vulnerable population

“Developing a new product is a significant research project requiring several parameters to be considered: the food vehicle, production processes, implementation of a quality system... This process is more complicated when the target group is a vulnerable population with very low income, because in addition to the above parameters, the price must also be taken into consideration. The partnership between GRET-Nutri’zaza and the private sector was very beneficial: thanks to the expertise of each entity, the challenge of producing very high quality healthy snacks at affordable prices was met.”

Alisoa Randrianarivo, agrifood manager at GRET

● The quality process

Once the product formula was defined, reflections were undertaken on the quality approach of the manufacturing process for each product. Quality management tools were designed (specifications, operations factsheets, quality control factsheets) in order to precisely design the quality criteria of each product (particularly nutritional and microbiological criteria), and to describe manufacturing and control procedures in detail. In addition, the Chocolaterie Robert staff were trained in best hygiene and production practices.

Quality management is monitored on a daily basis: each product batch is controlled at the Madagascar Institut Pasteur and the plant quality manager checks that the quality manual is complied with. GRET also makes regular plant visits. In addition to the above, a study of product shelf life conducted for the cereal bar for preschool children made it possible to monitor its evolution over time (nine months). The results were satisfying: after six months of conservation, the product’s microbiological and nutritional qualities remained stable, regardless of storage conditions.

Lastly, the PFOA project made it possible to improve Nutri’zaza’s historic product, Koba Aina, to respond in particular to the evolution of consumers’ needs and expectations, and to favour consumption. The Koba Aina formula was revised in order to make it compliant with the latest international recommendations in terms of recommended daily micronutrient intakes for infants and young children⁷. As surveys conducted by the project team demonstrated that children on average consumed less than two rations of porridge per day, the proportions of a packet of Koba Aina were converted to cover 50 to 100% of recommended daily intakes of vitamins and mineral elements in a single meal. The switch to this formula did not change the organoleptic quality of the porridge. Acceptability tests were conducted with a panel of 60 mothers of children aged 6 to 23 months and 2 to 4 years, in order to check that the reformulation did not alter the taste or perception of the product. In addition, with the same focus on meeting consumer expectations, a new phase of research and development on Koba Aina is underway, with a view to making it easier to prepare and reduce its cooking time.

7. GAIN (27014), Nutritional guidelines for complementary foods and complementary food supplements supported by GAIN, GAIN, 23 pages; Pan American Health Organisation (2003), Guiding principles for complementary feeding of the breastfed child, Pan American Health Organisation, 37 pages.

FOCUS
ON

Action-research at the core of the PFOA project

The PFOA project drew on numerous studies, both for the provision of fortified foods and its awareness-raising component. From product development to its consumption, via its promotion, the various surveys conducted among target populations, consumers and distributors made it possible to direct and redirect strategies. They also sought to evaluate the impact of the action.

This is the case in particular of the study conducted in January 2020 by IRD and Labasan, in partnership with GRET. The objective was to evaluate the effectiveness of strategies to prevent the various forms of malnutrition in young Malagasy children. The subjects were divided into four groups to test free distribution of infant flour alone and the promotion of responsive feeding*. In all, 706 children aged 6 to 7 months were enrolled and monitored every quarter for nine months, and 1,900 blood and stool samples were analysed. The results of this study will be the subject of future scientific articles and publications.

** Responsive feeding is a feeding method in which mother and baby are attentive to each other. The mother responds to the needs of her infant as well as to her own needs.*



Survey in a household in Toamasina as part of monitoring of Koba Aina consumption



A mother purchasing Koba Aina porridge for her child

Table 1: STUDIES CONDUCTED AS PART OF THE PFOA PROJECT

| PROVISION OF FORTIFIED PRODUCTS | | AWARENESS-RAISING | |
|---|---|--|--|
| <p>PROVISION OF FORTIFIED PRODUCTS</p> <p><i>Product-price strategy</i></p> <ul style="list-style-type: none"> • Nutrition surveys. • Diagnosis of food practices, of target populations' nutrition status and of determinants of malnutrition. • Market research (analysis of supply and demand). • Studies on expectations and perceptions and focus groups. • Acceptability tests on products and names. • Study on the consumption of a competing product. <p><i>Distribution strategy</i></p> <ul style="list-style-type: none"> • Market research (analysis of supply and demand). • Study of distribution networks (quantitative surveys among consumers, focus groups and interviews with distributors). <p><i>Promotion strategy</i></p> <ul style="list-style-type: none"> • Focus groups on target populations' perceptions and aspirations. • Pre-tests and post-tests on the promotion campaign, promotional messages and media and non-media supports. | <p>EVALUATION AND IMPACT</p> <p><i>Quality</i></p> <ul style="list-style-type: none"> • Study of durability. <p><i>Distribution</i></p> <ul style="list-style-type: none"> • Follow-up surveys of product distribution procedures (six-monthly). • Distributor satisfaction studies. <p><i>Consumption</i></p> <ul style="list-style-type: none"> • Follow-up surveys of consumption (annual). • Consumer satisfaction studies. <p><i>Impact</i></p> <ul style="list-style-type: none"> • Study on responsive behaviour between mother and child. • Study to evaluate the effectiveness of strategies to prevent the various forms of malnutrition in young Malagasy children (blood and stool samples, anthropometric measures, questionnaires, computerised system). • Study after launch of products on perception, use and satisfaction among consumers, non-consumers and distributors. | <p>KNOWLEDGE, ATTITUDES AND PRACTICES (KAPs)</p> <ul style="list-style-type: none"> • AP surveys: baseline situation + end situation (questionnaires, data collection): <ul style="list-style-type: none"> - children under the age of 2; - children aged 2 to 5; - children aged 6 to 14; - women of childbearing age. | |

Source: GRET

WHAT THE EXPERTS SAY



Studying the impact of a global strategy, an ambitious and enriching project for research

“The study on the impact of an infant flour distribution strategy combined with the promotion of responsive feeding was an innovative and extremely exciting project. Although the limited budget did not make it possible to conduct the study in ideal conditions, particularly in terms of monitoring and awareness-raising, the experience is nonetheless very enriching for research. This was colossal work, necessitating the collection of a huge amount of data in the field. In this regard, the collaboration with GRET was very helpful. GRET played a real facilitator role, and its notoriety and network at local level accelerated actions, in particular authorisation requests.”

Claire Mouquet-Rivier, director of research at the Nutripass Joint Research Unit, IRD Montpellier



Research-action, a win-win partnership

“The twenty-odd year partnership between GRET and Labasan is part of the University of Antananarivo’s mission focusing on training and research for sustainable development, for the benefit of Malagasy populations. Labasan’s strength resides in its presence in the field. As part of the PFOA project, the laboratory made their Masters degree and PhD students available to conduct studies on the quality and impact of the project, in partnership with IRD, in particular the study to evaluate the effectiveness of a strategy to prevent the various forms of malnutrition in young Malagasy children. These students collected and analysed data obtained via surveys and visits in the field, and home visits to populations. GRET contributes to training and strengthening of research students’ skills by providing a field study and Financial support. It’s a win-win partnership.”

Professor Charlotte Ralison, professor emeritus, head of Labasan, University of Antananarivo

SOCIAL MARKETING TO DISTRIBUTE FORTIFIED FOODS TO AS MANY PEOPLE AS POSSIBLE

The social marketing approach encompasses both the creation of a product offer, as previously mentioned, and the distribution and promotion of these products in order to make them accessible to as many people as possible and make them known⁸. As part of the PFOA project, these activities around the distribution and promotion of foods were led entirely by Nutri’zaza, with technical support from GRET (in particular strengthening of capacities to define the product offer, the promotion strategy, and sales and merchandising techniques). The local authorities were also fully involved in identifying priority zones in which to set up the innovative *hotelin-jazakely* network.

8. For more information on this: Boulle Martinaud C., Bessières M., Arnaud L., Rabearimanana O., Rakotomalala C. (2018), *L’assistance technique pour accompagner les premiers pas d’une entreprise sociale : Nutri’zaza à Madagascar, 2013-2017, Nogent-sur-Marne, GRET, 34 pages*; Pleuvret E., Bruyeron O., Arnaud L., Trèche S. (2010), *Le business social pour lutter contre la malnutrition infantile, Nogent-sur-Marne, GRET, 64 pages, Coopérer aujourd’hui, n° 69*.

● Three complementary distribution networks for broad market coverage

Since it was launched, Koba Aina is distributed via three complementary networks to optimise the accessibility of its products for as many people as possible: a traditional commercial circuit, an institutional network with NGOs and international organisations, and an innovative proximity network including the *hotelin-jazakely* (“restaurants for babies”) and door-to-door distribution by mobile facilitators. The PFOA project aimed on the one hand to strengthen and extend the presence of Koba Aina to 19 more districts (i.e. 45 in all) in order to reach more than 878,600 children aged 6 to 24 months and, on the other hand, to launch the distribution and promotion of new products via the commercial network in 21 communes in four districts of Antananarivo and Antsirabe.

Between 2017 and the end of August 2021, Nutri’zaza sold more than 49 million rations of Koba Aina, almost 1.7 million PoBary Aina cereal bars and 122,000 packets of Moosli Aina. Over the duration of the project, there was a balanced spread of infant flour sales between the three networks, although the long term objective is preponderance of the commercial circuit.

A traditional network

The traditional commercial circuit includes grocery shops, petrol stations and supermarkets, as well as wholesalers selling fortified products.

One of the main challenges relating to this circuit was management of commercial distribution. According to the tracker study of consumption of Koba Aina conducted in 2018, despite a significant increase in the number of occasional customers⁹ (52% in 2017 and 72 % in 2018), the fact that availability was still too limited was one of the obstacles to purchasing Koba Aina. To improve management of the network and its extension, work on identification and mapping of functional points of sale was conducted in 2019. A geolocalisation application was created to enable the Nutri’zaza sales teams to monitor stocks held by points of sale in real time, to gain better understanding of the social business’s market share and examine possibilities to extend. In parallel, the Nutri’zaza sales teams were strengthened and organisation was improved in order to optimise the presence of the products range in the network. At the start of 2021, despite the difficulties related to the Covid-19 crisis, more than 8,200 Koba Aina points of sale were active in this circuit.



WHAT THE EXPERTS SAY

Finding the delicate balance between viability and social impact

“The life of a company is filled with arbitrations, and these are even more decisive in a social business. It is important to support the promotion and distribution of products that are accessible to as many people as possible, without losing sight of the action’s viability. The classic Nutri’zaza commercial network enables the company to generate turnover that is reinjected into the rest of its social-purpose activities, and its financing contributes to investment in research and development. This is a fragile balance, but Nutri’zaza’s mandate remains the fight against malnutrition.”

Mandresy Randriamiharisoa, Managing Director, Nutri’zaza

9. Occasional customers are defined as mothers having given less than five packets or portions of Koba Aina porridge to their child in recent months.

An institutional distribution network

To reach the most vulnerable populations, Koba Aina is sold in international NGOs, associations and organisations working in Madagascar, who subsequently redistribute the product within their interventions.

Historically, sales via this network vary greatly according to contexts. While it accounted for approximately 20% of overall sales in 2017 and 2018, and 40% in 2019, this figure reached almost 60% between January and May 2020. This result is related to the emergency operation launched by the Malagasy government in response to the social crisis generated by the Covid-19 pandemic. Nutri'zaza was contacted to carry out daily distribution of Koba Aina at a reduced price over a three-week period. This distribution consisted of 575,000 rations being delivered to almost 11,500 families in 100 *fokon-tany* (neighbourhoods) in Antananarivo, Tamatave, Antsirabe and Fianarantsoa. This request made it possible to compensate for the stoppage in purchases from regular institutional customers (NGOs and associations), who had suspended their activities during lockdown (end of March to October 2020), and to maintain Nutri'zaza's results in 2020.

FOCUS ON

Containment: the impact of the Covid-19 pandemic on the production, distribution and promotion of fortified foods

The Covid-19 pandemic that emerged in 2020 had numerous consequences on the provision of fortified products, from production to promotion, via distribution through the various networks.

The restrictions on working hours and travel announced from March to June, stock shortages and late deliveries of certain raw materials slowed production down considerably: PoBary Aina volumes were halved. In addition, the health context prevented optimum progress on the finalisation of Moosli Aina. GRET supported the production team to search for solutions.

Out of Nutri'zaza's three distribution networks, the traditional commercial circuit is the one that suffered most from the crisis. Decreases in production, Koba Aina stock shortages, reduced opening hours in shops and the drop in consumers' purchasing power generated a decrease in sales over this period, particularly in the capital, which usually accounts for 70% of turnover. In addition to this, all the community-based promotion activities were stopped during the health crisis. Although media campaigns on TV and radio continued, the usual time slots were largely occupied by the awareness-raising and prevention campaign around Covid-19.

Shorter working hours also affected the facilitators. A slight decrease in sales and an increase in turnover were observed between April and May 2020. However, Nutri'zaza quickly put a social safety net in place and distributed protective equipment to its facilitators, which minimised staff departures considerably. In addition, an emergency operation conducted by Nutri'zaza and GRET made it possible to sell ready-to-eat porridge at a third of its usual price, responding to the needs of households affected by the crisis and partly compensating for the decrease in sales in the proximity network.

Despite almost no purchases by its regular customers, whose activities had been suspended, the institutional network bounced back. As part of its emergency plan in favour of vulnerable populations, the Malagasy government distributed 35 g packets of Koba Aina, multiplying Nutri'zaza's sales by three over this period. Thanks to this action, the social business succeeded in reaching a far wider audience and new neighbourhoods.

An innovative proximity network

Since 2002, Koba Aina is sold in the form of a ready-to-eat cooked porridge, via an innovative proximity circuit. This network makes it possible to increase the social impact of the complementary food by the health services (advice on child nutrition, weighing sessions and growth monitoring). At the end of 2020, this network was covering 118 *fokontany* in which the porridge was distributed by 118 salaried or independent facilitators *via* two channels: the *hotelin-jazakely* ("restaurants for babies"), set up in neighbourhoods, which sell ready-to-eat Koba Aina, and door-to-door sales by mobile facilitators¹⁰.



WHAT THE STAKEHOLDERS SAY

The municipality of Antananarivo is working with Nutri'zaza to fight against malnutrition

"The municipality strengthened its commitment to fight against malnutrition, in particular child malnutrition, by setting up structures for nutrition education and by calling upon civil society organisations working in this area. The objective is to ensure long term availability to children and mothers of services that can support them to avoid malnutrition.

In defining these supports, the municipality works with various partners. This generates a synergy in which the municipality and its partners work on strategies and methodologies. This dynamic led Nutri'zaza to participate in the community-based actions conducted by the municipality: a stand is provided for its activities, including weighing of children, distribution of Koba Aina and the sale of other fortified food products. Infrastructures are also put in place by the municipality for the *hotelin-jazakely*."

Dr. Hajatiana Raharinandrasana, director of social actions and health, the Antananarivo urban municipality

Mobile facilitators are an effective, recognised sales force. In 2019, in the neighbourhoods served by the proximity network, more than half of the mothers questioned had already bought the porridge at least once, and one out of four had even consumed it once¹¹. Among those who had stopped, the main reason for half of them was that the facilitator had stopped coming to the neighbourhood. Home visits are an important means of promoting and distributing Koba Aina for mothers. When the frequency of visits by facilitators increased in 2018 (more than half of facilitators visited neighbourhoods at least five times a week), the level of mothers' satisfaction with regards sale of the porridge and the retention rate also increased considerably (among consumers, more than 74% of mothers continue to buy the porridge today, compared to 48% in 2017). Although the porridge is less expensive than the packets of Koba Aina, the main advantage for families is not financial. For 40% of these, the main advantage resides in the time saved when preparing the ready-to-eat product.

10. Boule Martinaud C., Bessières M., Arnaud L., Rabearimanana O., Rakotomalala C. (2018), L'assistance technique pour accompagner les premiers pas d'une entreprise sociale : Nutri'zaza à Madagascar, 2013-2017, Nogent-sur-Marne, Gret, 34 pages.

11. Gret (2019), Rapport d'enquête : suivi de consommation de l'aliment de complément Koba Aina chez les enfants de 6-23 mois dans le cadre du projet PFOA, Madagascar, Gret, 35 pages (internal document).

This proximity network had to rise to two major challenges over the duration of the project. The first was the low rate of frequentation of the “restaurant for babies” infrastructures. To boost promotion of these, advertising spots were put out on radio and solutions are being examined or pre-tested to diversify healthcare and social services provided to vulnerable populations in neighbourhoods. This strategy makes it possible to combine customer retention and enjoyable education on best practices to complement awareness-raising messages.

FOCUS
ON

Relying on customer retention

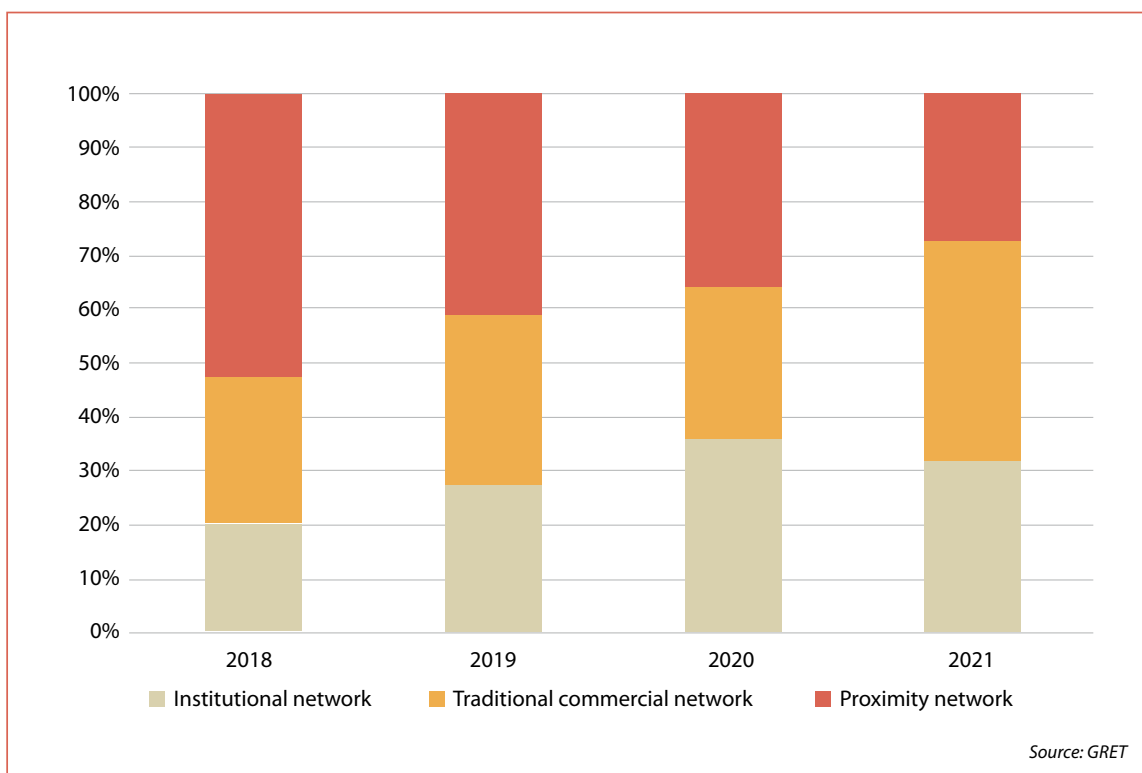
Studies on consumption of Koba Aina showed that Nutri’zaza’s marketing strategy made it possible to generate an initial purchase (high penetration rate) but not to retain sufficient customers (relatively low rate of regular customers). Yet, in 2018, these same studies indicated that three quarters of mothers (compared to just half in 2017) were in favour of a subscription card.

The social business therefore conducted a pilot operation at the end of 2019 to test the impact of a loyalty programme within the *hotelin-jazakely* network. After 22 rations purchased over 22 consecutive days, families received a free bowl of the product. This action enabled Nutri’zaza to sustain its results from November to December, as well as in January. In addition, monitoring of consumption revealed that the rate of regular customers (having purchased at least 25 rations of Koba Aina over the last month) increased significantly in 2019, from 7 to 19%.

In parallel, as the *hotelin-jazakely* were inconvenient in that they are fixed points, the number of mobile facilitators was substantially increased to expand the zone of intervention and reach even more children in neighbourhoods with restaurants for babies.

The second challenge faced by this network concerns human resources, i.e. recruitment and retention of Nutri’zaza facilitators. The new staff are affected by a certain level of turnover, mainly due to the hardship of the job and low income. As facilitators are paid a bonus based on sales, any event likely to reduce sales (new network, increase in product price, health crisis, etc.) has an impact on their income. Measures were taken to improve their working conditions, in particular as part of a social entrepreneurship approach. Recruitment of salaried staff increased constantly (+ 60% in 2020, i.e. 87 salaried staff out of a hundred or so facilitators) and a complementary health insurance package was put in place. In addition, various means of transport, such as bicycles, carts and rickshaws, were tested with a view to making distribution easier. In 2021, Nutri’zaza invested in more personalised and more intensive support for facilitators by putting “super facilitators” in place, as well as the system providing support through coaches. Training sessions in sales, communication and negotiation techniques were also strengthened. Thanks to these measures, turnover of facilitators decreased from 220 to 62% between 2019 and August 2021.

Figure 2: ACTUAL EVOLUTION IN BREAKDOWN OF SALES REVENUE



● **An aspirational and multi-channel promotion strategy for better market acceptance**

In order to develop an appropriate social marketing strategy with a quality value proposition¹², knowledge of consumers is essential. GRET and Nutri'zaza's experience in Madagascar demonstrated that it is more effective to deploy aspirational promotion¹³, i.e. promotion focused on populations' expectations and habits, rather than counting solely on the "health" argument that, on its own, is not enough to generate the act of purchase¹⁴. This is why Nutri'zaza regularly conducts quantitative and qualitative diagnoses and analyses on consumers' aspirations and needs, as well as on the use and frequency of consumption of its products, in order to adapt its offer over the long term. So, several qualitative studies were conducted as part of the PFOA project among children and young adolescents, and their parents. These studies aimed to identify their aspirations, leisure activities, needs and frame of reference, and to inform Nutri'zaza's brand strategy and the implementation of promotion campaigns.

12. In marketing, a "value proposition" is a strategic choice that determines the main benefits provided to customers by a good or service in order to create an offer whose perceived value is higher than that of competitors.

13. A neologism designating something that inspires or generates desire.

14. Vola Rakotonarivo M., Boule Martinaud C. (2020), Social Marketing to Sustainably Influence Nutrition Behaviors: Nutri'zaza's strategy for triggering adequate consumption of complementary foods to prevent malnutrition in Madagascar, *Sight and Life*, vol. 34 (1), pages 90-94.

FOCUS
ON

Promotion at national level thanks to the mass media

When defining an intensive, effective promotion strategy for the entire product range, with GRET's support, Nutri'zaza called upon the services of the local Novo-Comm Ogilvy communication agency, which developed the brand platform, campaign concepts, deployment actions and dedicated supports. In order to reach a wider audience, Nutri'zaza communicated via the mass media: radio and television at national and regional levels, as well as in social media. In 2017 and 2018, among mothers questioned who had been reached by the Koba Aina promotion messages, almost 90% heard about it on the radio. Radio and TV spots were specifically adapted and improved based on the results of the follow-up survey results.

While communication on Koba Aina and on the PoBary Aina cereal bar for preschool children is targeted primarily at mothers, communication on Moosli Aina, designed for children aged 6 to 14, is on the other hand targeted at this age group (see table 2 on page 21).

The PoBary Aina promotion strategy

The pilot-scale launch in late 2019 of the PoBary Aina cereal bar in Antananarivo and Antsirabe got off to a good start and received excellent consumer feedback, in particular thanks to its intensive promotion campaign. This validated the product's pertinence and potential over the long term. A post-launch survey made it possible to evaluate consumer and distributor satisfaction, and to ascertain the product's position on the market. The majority of children preferred the taste of PoBary Aina compared to other snacks, and more than 75% of parents said they were in favour of daily consumption of the product by their child. We observed very good acceptance and a good impact of the promotion campaign, with 85% of consumers having discovered PoBary Aina thanks to advertising spots on TV, and the majority (83%) saying they understood the characteristics and benefits of the product (price, type, advantages of consumption, nutrients). Optimisations of the production chain at Chocolaterie Robert were undertaken to improve production capacities on a larger scale and ensure coverage of the national territory.

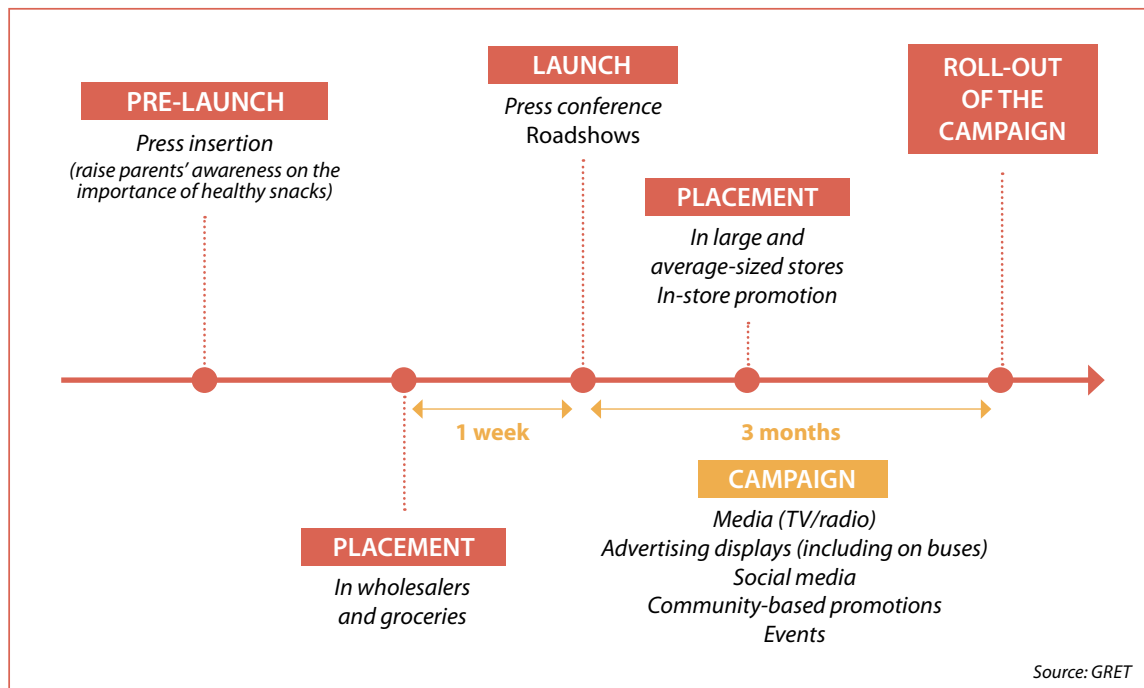


Community-based marketing event to promote PoBary Aina



The Koba Aina infant flour range

Figure 3: LAUNCH IN LATE 2019 OF THE POBARY AINA CEREAL BAR FOR CHILDREN AGED 3 TO 5 IN ANTANANARIVO AND ANTSIRABE



Moosli Aina promotion strategy

Moosli Aina, the healthy snack for children and young adolescents aged between 6 and 14, was launched at the commercial network level in mid-August 2021 and is supported by an intensive promotion and distribution strategy, as was the case for PoBary Aina. For Nutri’zaza, the innovation resides in the promotional messages and channels used to launch a communication campaign directly targeting young adolescents – and no longer their parents – relying on a fun-based approach: digital communication and influencers, street marketing, competitions and treasure hunts posted directly on the Moosli Facebook page, intending to create a connection with consumers.

Table 2: SUMMARY OF MARKETING STRATEGIES PER TARGET GROUP

| CHILDREN AGED 6 TO 24 MONTHS | CHILDREN AGED 3 TO 5 | CHILDREN AGED 6 TO 14 |
|---|--|--|
| <p>Name: Koba Aina.</p> <p>Food vehicle: fortified infant flour (plain, strawberry, banana).</p> <p>Distribution: traditional commercial network, institutional network, <i>hotelin-jazakely</i> and mobile facilitators (door-to-door sales).</p> <p>Promotion: proximity promotional events, media, displays, social media.</p> | <p>Name: PoBary Aina.</p> <p>Food vehicle: fortified chocolate flavour cereal bar.</p> <p>Distribution: traditional commercial network.</p> <p>Promotion: proximity promotional events, media, displays, social media.</p> | <p>Name: Moosli Aina.</p> <p>Food vehicle: fortified chocolate-orange flavoured muesli.</p> <p>Distribution: traditional commercial network.</p> <p>Promotion: community-based promotional events, media, displays, street marketing and events, social media (influencers).</p> |

Source: GRET

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

The Koba Aina promotional strategy

The Koba Aina promotional strategy places a strong focus on community-based actions conducted by trade-marketing facilitators in the *fokontany*. Mobile promotional events and demonstration and tasting sessions are organised at sales points and in markets to reach customers directly. The Nutri'zaza teams have stands at tradeshow, fairs and other nutrition events, and organise games to boost sales. In 2019, raffles held in four large towns made it possible to increase sales in the commercial network by 40%, despite significant stock in August and September. These activities are also aimed at retailers, and competitions between distributors were organised in 2020.

Table 3: EVOLUTION IN KOBA AINA CONSUMPTION IN 2018 AND 2019
SOURCE: ANNUAL FOLLOW-UP SURVEYS ON CONSUMPTION OF KOBA AINA

| | 2018 | 2019 |
|-------------------------|-------|-------|
| Penetration rate | 71.5% | 63% |
| Rate of regular clients | 7.1% | 18.8% |

Source: GRET

Table 4: EXAMPLES OF ECONOMIC AND SOCIAL INDICATORS BETWEEN 2018 AND 2020

| Economic indicators | 2018 | 2019 | 2020 | January-August 2021 |
|---|-----------------------|-----------------------|--------------------------------|---------------------|
| Sales revenue (in euros) | 488,000 | 527,000 | 767,000 | 462,000 |
| Sales revenue (in % of objective) | 66% | 62% | 90% | 49% |
| Number of meals distributed | 9,136,000 | 8,871,000 | 12,897,000 | 7,982,000 |
| Social indicators | 2018 | 2019 | 2020 | Janvier-août 2021 |
| Number of <i>hotelin-jazakely</i> (HTJ) | 36 | 34 | 33 | 31 |
| Number of neighbourhoods | 110 | 110 | 120 | 128 |
| Weighing sessions | 19 HTJ/every Saturday | 17 HTJ/every Saturday | 17 HTJ/stopped at end of March | 12 HTJ/ |
| Turnover of facilitators | 237% | 220% | 104% | 62% |

Source: GRET

CONCLUSION

The process to develop fortified products as part of the project gave a central role to action-research at all stages. It also reflects the multi-sectoral approach taken by the PFOA project, including laboratories and producers, and even consumers. As a distributor, Nutri'zaza was included in the process in order to have a commercial view of production.

Although the food intended for women of childbearing age had to be abandoned, the project made it possible to develop two new quality appropriate fortified foods, contributing to improvement of the nutrition status of children under the age of 14: PoBary Aina and Moosli Aina. The latter are distributed and promoted alongside Koba Aina, which is already well established on the market.

Despite differences between regions and between networks (revealed by the follow-up surveys on consumption and monitoring of sales reports), Koba Aina had significant results in terms of sales and impact, with almost 46 million rations sold over four years, a rate of regular customers close to 19% and almost 880,000 children being able to access this quality product. Although it was put on the market quite late, Moosli Aina sales appear very promising (almost 122,000 rations have already been sold since the product was launched¹⁵).

To strengthen the availability of new products, extending their distribution in another format to the Nutri'zaza mobile facilitators network is being envisaged in the long term. This will also make it possible to increase facilitators' income. In addition, a project to define Nutri'zaza's institutional communication was initiated to support expansion of the range, and the social business's notoriety and visibility in institutional circles. Lastly, organising the promotion of Nutri'zaza products in parallel with awareness-raising activities conducted by GRET is recommended, as these two types of actions are complementary. ●



Mothers giving porridge to their children at the entrance of a hotelin-jazakely



A packet of Moosli Aina

15. Data as of 23 September 2021.

PART 2

Improving knowledge, attitudes and practices in terms of food and nutrition

In parallel to providing quality fortified products, strengthening of recommended practices in terms of nutrition and, more specifically, a balanced diet and food fortification, is crucial to ensuring that consumption of this type of product becomes one among a set of habits contributing to sustainable prevention of malnutrition in children. In partnership with the National Nutrition Agency (ONN), GRET developed a social and behaviour change communication as a complement to the commercial communication activities conducted by Nutri'zaza. In its awareness-raising component, the PFOA project was strengthened by the Programme for innovative nutrition education in poor urban areas in Madagascar (Penim), implemented with support from the Principality of Monaco.



WHAT THE EXPERTS SAY

Combining commercial strategy and social communication to prevent malnutrition

“The social and behaviour change communication strategy does not promote a specific brand or product, but it enables the creation of an environment that is favourable to the consumption of fortified products available in Madagascar, by improving consumers’ food knowledge and practices. As part of the PFOA project, the ONN conveyed this message as a public stakeholder, with support from GRET. The commercial promotion strategy operated by Nutri’zaza made it possible to favour purchase and consumption by consumers of the fortified products in its range, by creating product notoriety, developing Nutri’zaza’s brand image, stimulating sales and customer retention. Although we have separate objectives, we have a strong belief that combining these two strategies is essential for consumption of products such as Koba Aina to become an integral part of adequate food practices, to prevent malnutrition in children.”

Clémence Boule Martinaud, nutrition projects manager and marketing specialist, GRET

A STRATEGY BASED ON AN INDEPTH DIAGNOSIS OF THE CONTEXT

The awareness-raising strategy defined as part of the PFOA project is based on an inventory of the state of play and an analysis of the context, in particular:

- the nutrition status of the target populations (national surveys such as the *Demographic and health survey – EDSM-IV*¹⁶) and nutrition surveys conducted as part of the project);
- awareness-raising strategies at national level (the 2017-2021 National action plan for nutrition – PNAN III¹⁷ – and the Programme for improvement of nutritional outcomes by the ONN and the Ministry of Public Health, and the World Food Programme Strategy on communication for social and behavioural change¹⁸);
- evaluation of the target population's level of knowledge, attitudes and practices (KAP) in terms of food, nutrition and care of children under the age of two and women of childbearing age, conducted as part of the project.

This diagnosis reveals that although national strategies succeed in broadly reaching populations, in particular the most vulnerable, and involve a wide variety of stakeholders in the fight against malnutrition, they place little focus on the subject of complementary foods. Furthermore, it appears that no activity is specifically adapted to the urban context or preschool and school-age children.

Mothers of children aged 6 to 24 months and women of childbearing age have a good level of knowledge on recommended practices. This result is due to numerous awareness-raising activities conducted by stakeholders in the fight against malnutrition over recent years. However, these strategies are mainly geared towards knowledge dissemination. Yet, information alone is not enough to make practices evolve, as confirmed by the KAP surveys. Based on the stages of behavioural change (figure 4), it is necessary to activate the motivation lever to steer populations towards the adoption of new practices. This was GRET's ambition with the PFOA project: in addition to improving knowledge, it also sought to innovate by diversifying awareness-raising approaches, channels and materials to maximise the impact on change of practices.

The awareness-raising strategy's direct target groups are potential consumers of fortified foods. Their family and the people around them, and specifiers such as teachers, local authorities, basic healthcare centre managers and healthcare officers – who have the power to influence the direct target groups' behaviour – are indirect and secondary targets.

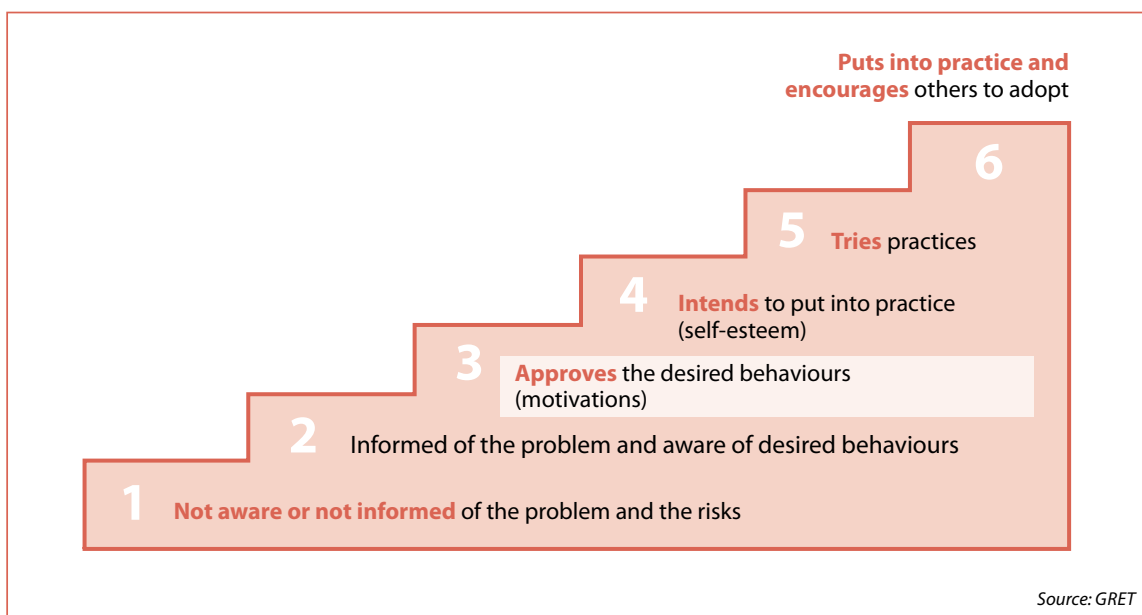
As part of the PFOA project, the objective of the awareness-raising strategy was to strengthen knowledge for school-age children and mothers of preschool children, who are not sufficiently targeted by national awareness-raising actions. For women of childbearing age and mothers of children aged 6 to 24 months, the challenge consisted on the one hand of strengthening their knowledge on food fortification, a subject insufficiently covered by national awareness-raising campaigns, and on the other hand of encouraging them to become more motivated.

16. *Instat, ICF Macro (2020), Enquête démographique et de santé, Madagascar, 2008-2009, Antananarivo, Instat, ICF Macro, 444 pages.*

17. *ONN, Plan national d'action pour la nutrition-III 2017-2021, Antananarivo, République de Madagascar, 81 pages.*

18. *Harbar M. (2019), Stratégie de communication pour un changement social et comportemental du Programme alimentaire mondial à Madagascar 2019-2024, PAM, 27 pages.*

Figure 4: THE STAGES OF BEHAVIOURAL CHANGE



The messages, whose content is framed by national regulation on infant feeding, were formulated with the help of the ONN and adapted to the project’s contexts and targets. They covered the following subjects: breastfeeding and complementary feeding for children from age 6 months, hygiene, rich and varied diet, and food fortification.

Based on these elements, a triple awareness-raising plan was developed through the channels defined by the KAP study as being those to which the target populations were most receptive.

Table 5: THE PFOA PROJECT’S DIFFERENTIATED AWARENESS-RAISING STRATEGY

| CHILDREN AGED 6 TO 24 MONTHS | CHILDREN AGED 3 TO 5 | CHILDREN AGED 6 TO 14 | WOMEN OF CHILDBEARING AGE |
|---|---|--|--|
| <p>Main target group: mothers of children aged 6 to 24 months.</p> <p>Target figure: 700,000.</p> <p>Messages: breastfeeding, complementary feeding, responsive feeding, food fortification, hygiene.</p> <p>Channels: group meetings, mass events, film screenings followed by debates, inter-personal communication (response to the Covid-19 crisis), mobile telephony, the media.</p> | <p>Main target group: mothers of children aged 3 to 5.</p> <p>Target figure: 7,000.</p> <p>Messages: food diversification, balanced diet, food fortification, hygiene.</p> <p>Channels: film screenings followed by debates, the media.</p> | <p>Main target group: children aged 6 to 14.</p> <p>Target figure: 10,000.</p> <p>Messages: healthy snacks, diverse foods, food fortification, hygiene.</p> <p>Channels: schools, the media.</p> | <p>Main target group: women of childbearing age.</p> <p>Target figure: 8,000.</p> <p>Messages: diverse foods, iron-rich foods, food fortification, hygiene.</p> <p>Channels: group meetings, film screenings followed by debates, <i>tsikonina</i>, the media.</p> |

Source: GRET

AN OUTREACH CAMPAIGN: FACE-TO-FACE AWARENESS-RAISING

To stimulate motivation among populations, the awareness-raising strategy must be developed as closely as possible to the latter, and encourage discussions. It is no longer simply a question of informing, it is also about listening and generating participation.

● Awareness-raising by peers

Awareness-raising sessions in small groups (10 to 15 people) were organised for mothers of young children and women of childbearing age. This format makes it possible to precisely target the population segments to be reached. In addition, the limited number of participants favours discussions on best practices, difficulties in implementing them and solutions to this. These sessions were facilitated by community-based health officers originally from the *fokontany* and supervised by the project facilitators. As these officers are close to the populations in question, they contributed to identifying and mobilising participants.

FOCUS ON

Community-based officers, the corner-stone of awareness-raising in neighbourhoods

Community-based health officers are key elements in the PFOA programme's awareness-raising component. As they themselves are members of the neighbourhood in which they work, they are close to the populations concerned. In addition, they report to basic healthcare centres and are therefore part of the official healthcare system, which means they are trusted within the *fokontany*. All these elements favour families' acceptance of, adherence to and appropriation of awareness-raising messages.

With the help of local authorities and basic healthcare centre managers, GRET's facilitators trained one community-based officer per *fokontany*, who in turn contributed to selecting participants in the awareness-raising sessions (group meetings, *tsikonina*). Over a one-week period, the officers received training from the facilitators on the project and its objectives, women's nutrition, infant and young child feeding, and food fortification. The objective was not to turn them into nutrition specialists, but to give them the bases necessary to raise families' awareness.

They also benefitted from classes on techniques for conducting community-based awareness-raising and practical training in the field, and were supported in the early stages of their work.

In addition to coordination meetings with facilitators and basic healthcare centre managers, revision sessions were organised every three months. These aimed to strengthen the community-based officers' capacities in the subject areas of the initial training, and to talk about their results, their difficulties and possible strategic adaptations.

An evaluation of their knowledge was also conducted on this occasion *via* a questionnaire, demonstrating overall improvement of knowledge and identifying areas for progression.

In all, over the duration of the project, almost 600 community-based health officers were trained in the 45 districts of intervention.



WHAT THE STAKEHOLDERS SAY

Sharing new knowledge with the people around us

"I learned a lot thanks to the project. I now know which food category rice belongs to and what its substitutes are. I pass my knowledge on to my children, I apply it at home and share it with the community.

I feel proud of myself because the mothers are satisfied and learned how to prepare more nutritious meals. The messages on fortified foods and the Tovonantsoa* label are also new to me. GRET is the only organisation I know that is conveying them."

**Label for all fortified foods in Madagascar. Its use is defined by order n° 1076-2012 of the Ministry of Trade on compulsory mention of fortified foods to regulate the distribution and sale to consumers of foods referred to as fortified.*

Marie-Violette Rakotonirina, community-based officer, Tongarivo fokontany, commune of Tanjombato

Several awareness-raising formats in groups were tested during the project. Initially, the meetings were intended to enable participants to act in short plays, to show them audiovisual awareness-raising tools and allow them to have discussions around an image box.

However, as the women had already been frequently called on by other awareness-raising programmes, a new approach was taken during the project to improve their mobilisation and rate of participation. Meetings were proposed to discuss subjects they considered to be important. Informally collected by the community-based officers in neighbourhoods and validated by facilitators, the subjects covered were not necessarily directly related to nutrition. Sometimes the subjects were around daily problems faced by mothers and women, which they themselves wanted to talk about (child health, management of household income, pregnancy and labour, etc.). Subsequently the messages were gradually adapted by the community-based officer to focus on food, nutrition and food fortification.



An event in the community



A project facilitator sharing messages on women's nutrition during a tsikonina meeting

FOCUS
ON

Tsikonina*, a strategy for awareness-raising through action

An awareness-raising strategy called “tsikonina” was developed in order to specifically reach women, and also to include the gender-based approach by involving fathers directly. This strategy aimed to improve knowledge and habits in terms of healthy diet, taking a participative approach. It was tested among 3,200 women and 800 men from Antananarivo and Antsirabe.

Initially, groups of women and men were trained by GRET facilitators and community-based officers. A small sum of money was then allocated to each group to go to the market and purchase the items necessary to prepare healthy recipes. A cooking competition was organised between the teams.

By encouraging participants to propose recipes and put what they had learned into practice, this approach made it possible to progress to the last level of behavioural change: testing. It also showed participants that it was easy to apply these practices without spending large sums of money, an obstacle often mentioned by families. Feedback on this fun practical methodology was very positive.

** Usually, tsikonina is a tradition practiced by children at major festive times of the year (e.g. the national holiday). It consists of a cooking competition (with small portions) aimed at teaching cookery and introducing the notion of solidarity (the children invite each other to taste the dishes prepared).*



WHAT THE STAKEHOLDERS SAY

Raising men’s awareness on women’s nutrition

“Out of curiosity, I participated in the *tsikonina* awareness-raising organised by the project. I learned the importance of consuming certain foods to protect pregnant women from haemorrhaging, such as iodized salt, iron-rich foods, and also for children’s mental development. The main change is in terms of practices. Before, we used to eat potatoes with rice, whereas in reality they have the same nutrients. The film entitled *Vary be tsisy laoka* showed us that we can use noodles or potatoes instead of rice.”

Jean-Thierry Ratsimandresy, husband of a 29 year-old breastfeeding woman, Andohatapenaka I fokontany

● **Using entertainment to convey messages**

In parallel to the group meetings, the GRET facilitators organised film screenings followed by debates. Bringing together some twenty mothers and their school-age children, these events aimed to convey messages on prevention in a fun manner and favour the involvement of participants. They were divided into two periods: first humorous awareness-raising video clips were screened, and then the subjects of the sequences were debated among mothers. Featuring locally known stakeholders, the films depicted moments from daily life, facilitating the identification and appropriation of best practices. In addition, repetition of messages was a means of preparing their subsequent adoption and application. Mothers were doubly motivated to participate: they could enjoy some entertainment and occupy their children.



WHAT THE EXPERTS SAY

Raising awareness differently, the PFOA and Penim projects’ participative approach

“With the PFOA and Penim projects, we moved away from traditional awareness-raising methods to implement a highly participative approach based on discussions and listening. Feedback from participants is extremely important to help them move forward to adopt new practices. This requires calling our methods into question, which is not always easy, especially after several years of experience. It was necessary to raise teams’ and community-based officers’ awareness on this approach.

It was also necessary to ensure good coordination between strategic and operational aspects, design and implementation, in order to adapt the method progressively.”

Léa Ralalamoria, social communication manager, GRET

Table 6: VIDEO CLIPS TO RAISE AWARENESS ON PRODUCTS

| Clip 1 | Clip 2 | Clip 3 | Clip 4 | Clip 5 |
|---|--|--|---|---|
| <p>Target group: mothers of children aged 6 to 24 months.</p> <p>Subjects: infant and young child feeding, food diversification and food fortification (label).</p> | <p>Target group: mothers of children aged 2 to 5.</p> <p>Subjects: food diversification.</p> | <p>Target group: children aged 6 to 14.</p> <p>Subjects: school nutrition.</p> | <p>Target group: women of child-bearing age.</p> <p>Subjects: women’s nutrition, stressing the importance of consuming iron-rich foods.</p> | <p>Target group: all of the project’s targets.</p> <p>Subjects: the importance of food fortification according to categories of the population.</p> |

Source: GRET

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar



WHAT THE STAKEHOLDERS SAY

From “beneficiary” to stakeholder in the awareness-raising strategy

“I was a fruit-seller before participating in these awareness-raising activities with the project. There was a community party in our fokontany and we put on a play about food, organised by the project.

After that, the chairwoman of the fokontany called me to ask me would I like to act in an awareness-raising film with Rajao. I really enjoyed that. As this film involved young people, adults, mothers and fathers, I think it makes it easier to remember the messages, especially for adolescent girls once they are active in family life. In the neighbourhood too, the film makes it easier to convey messages to inhabitants. It’s important for mothers to fulfil their responsibilities around child feeding for the good of the country.”

Eveline Rasoamanahirana, mother of a 5-month old baby, Ankarobato fokontany, who acted in the awareness-raising film entitled *Sady makaty no makary* with actor Rajao

● An indirect approach in schools

In order to reach school-age children, GRET tested a pilot awareness-raising methodology used by teachers in schools. As this area comes under the mandate of the Ministry of National Education, the NGO played a role supporting and strengthening knowledge among public authorities and teachers with a view to developing a strategy for interactive, fun education on nutrition.

Initially, 100 primary school teachers from twenty public schools in Antananarivo were trained by a local technical team made up of pedagogical staff from the school districts, the Regional Directorate of National Education, the ONN and GRET. This training made it possible to improve their knowledge on the nutrition status of children under the age of 14 and of women, on food, nutrition and, above all, food fortification.



A spinning wheel, one of the fun awareness-raising tools developed by the project for public primary schools

During the training, the teachers had to propose nutrition education tools in line with the national policy. Fun pedagogical tools were developed, such as songs, poems and games, validated by a committee made up of public authorities and GRET, and subsequently reproduced. In turn, the teachers involved pupils in the participative design of awareness-raising messages and supports. All of these tools were subsequently listed and distributed for the benefit of all schools and other stakeholders in the Ministry of National Education’s school nutrition programme.

WHAT THE STAKEHOLDERS SAY



An awareness-raising strategy and tools that must be made sustainable

“The Regional Nutrition Office (ORN) contributed greatly to the awareness-raising strategy, particularly during the design phase of the various tools, and GRET requested support from the ORN for each of these. I can see complementarity between the entities in the project implementation. Awareness-raising tools are designed to improve knowledge, to convey messages. These tools are innovative, very important and pertinent, although some of them were produced quite late and we did not have enough time to assimilate them. It is in terms of reproducing these tools that we could encounter limits for upscaling. A strategy remains to be found so that all tools can be used by all stakeholders.”

Alitiana D.D Michel Randrianandrasana, regional coordinator at the Regional Nutrition Office (ORN), Analamanga



Active, innovative participation of teaching staff in the implementation of the awareness-raising strategy at school level

“One of the innovations of the PFOA project’s awareness-raising strategy is the involvement of teachers in the design of tools. We materialised the results of their reflections and their creativity. I think it’s important for them and really remarkable. As these are their creations, they will take care of them.

In each school, all teachers find the means to valorise the tools in their classes. We don’t have to wait for a World Day or a National Day. The tools are used in science class for example, and awareness-raising on a healthy, balanced diet is well received.”

Dr Rafarahanta Nirina Norton, department manager at the Directorate of School Food, Ministry of National Education

Learning in school and sharing the message at home

“We were educated about healthy food using tools on whole foods that are good for health, high-energy foods, protective foods, bodybuilding foods and fortified foods. The latter are a complete food and don’t require adding fruit. I didn’t know that before but our teacher taught us. At home, I told my family that our food should include at least one high-energy food, rice or food that can replace it, protective foods like fruit and vegetables, food of animal origin, and that *notovonantsoa* [fortified foods] are complete.”

Heritiana Elida Ravololoniaina, a 9 year-old pupil at Ampefiloha public primary school, Ambodirano

● Social outreach events and collective awareness-raising

The last level of community awareness-raising consists of mass outreach events. During these collective festive events, bringing together some one hundred people, participants in group meetings, called “mother leaders”, put on plays and sang songs prepared upstream. Competitions were organised, and shows (traditional music, puppets, etc.) and other fun activities contributed to conveying awareness-raising messages.



WHAT THE EXPERTS SAY

Entertaining to educate

“Puppet shows are one of the approaches used by NGO ASOS to raise awareness in the community, and they attract large audiences. This vector of social mobilisation and transmission of messages was integrated in the PFOA programme during community events facilitated by the ASOS team.

Targeted nutrition messages were included in plays aimed at both entertaining and educating the audience. Questions and answers after each play made it possible to measure reception of messages and strengthen them. This approach, which can be used in both urban and rural areas, is complementary to the interpersonal approach making it possible to influence behavioural change.”

Dr Jean Claude Rakotomalala, Executive Director, ASOS Madagascar

By organising these events, women, community-based officers and local authorities publicly and actively demonstrated their commitment to the fight against malnutrition. In terms of behavioural change, this approach did not just activate the motivation level, it also activated intention and self-esteem levels. In addition, repetition of messages by participants in the group meetings made it possible for these messages to be more permanently rooted and to monitor knowledge acquired. Lastly, by involving the whole population, this approach also made it possible to reach indirect and secondary targets, such as fathers, grandparents and specifiers. These events are costly in terms of financial and human resources, however, they were occasional.



WHAT THE STAKEHOLDERS SAY

The *fokontany*'s involved in raising the awareness of their population

“At the start of the project, the *fokontany* organised a festive community event and invited staff from the commune, senior citizens and mothers. We staged sketches on malnutrition. The *fokontany* covered all the costs of this event. I can see that following the interventions, mothers have made a habit of putting the messages received into practice, for example no other foods apart from breastfeeding for babies up to 6 months. And pregnant women are now going to prenatal visits and eating healthy foods.

This project really responded to the needs of the population and mothers now know which necessary and healthy foods to buy at the market for their children and their families.”

Viviane Yolande Rakotonjanahary, chief of the Ankarobato *fokontany*, commune of Tanjombato

A CUSTOMISED INNOVATIVE CAMPAIGN: AWARENESS-RAISING MESSAGES VIA MOBILE PHONE

The PFOA and Penim projects implemented an innovative awareness-raising strategy based on ICTs¹⁹, adapted to the context. Because families in urban areas do not have a lot of time for group meetings, GRET had the idea of using a simple tool that could be available at any time: the mobile phone. Mothers of children aged 2 to 12 months who subscribed received free awareness-raising text messages in Malagasy, based on their child's age.

The objective of this campaign was to support families in the decisive stages of child nutrition, in particular that of food diversification (around 6 months). These families were enrolled when their babies were in their third month, with a view to raising their awareness on post-delivery care (medical visits, vaccines, etc.) and establishing a climate of trust with them. Subsequently, they were supported for ten months, with two to three text messages a week. One of the advantages of this strategy was that messages could be read and re-read at any time.

Subscribers were approached by the project facilitators, via door-to-door visits or following their participation in an awareness-raising session. At first, subscriptions were managed by the Viamo social business's platform (until the beginning of 2020), after which activities concerning subscriptions and sending of messages were continued via the AlloLaafia platform, developed by GRET.

During the campaign, with technological support from Viamo, a quiz to monitor knowledge was sent to subscribers, to measure their commitment (participation and number of right answers). In terms of behavioural change, this test made it possible to exceed the information stage and achieve motivation, by involving subscribers directly.



A couple from Toamasina who benefitted from awareness-raising via mobile phone

19. Information and communication technologies.

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar



WHAT THE EXPERTS SAY

Using technology for a customised awareness-raising strategy

“The added value provided by technology in the context of this awareness-raising strategy is that it enables a significant number of families to be supported at very little cost in terms of human and financial resources. In addition to this, automatic programming of messages enables support to be provided over the long term, which is necessary to foster behavioural change. This service is an excellent addition to the suite of tools rolled out by the project, providing awareness-raising over the long term that evolves as children grow and favours appropriation of the information received, as well as re-reading of messages after they have been received and even sharing of information (short messages with 160 characters, on a personal device: the beneficiary’s mobile phone).”

Marie-Christine Lebret, manager of ICT projects for development, GRET

The campaign messages were developed and validated in accordance with national standards on infant feeding by the ONN, the Ministry of Public Health (MINSANP) and the Ministry of National Education. They were harmonised with the project’s other awareness-raising materials.

- In total, 10,500 households in approximately one hundred *fokontany* in Antananarivo and Toamasina were subscribed to the campaign, compared to an objective of 8,000 in 30 neighbourhoods.
- More than 216 public and private health staff benefitted from a campaign to refresh knowledge via text messages, following training.
- The campaign sent 88 awareness-raising messages over ten months.
- Approximately 520,000 text messages were sent since the launch of the service in 2017.
- 2,500 subscribers received a quiz to monitor knowledge.
- In 2021, the service is supporting approximately 500 people every day.



WHAT THE STAKEHOLDERS SAY

Practical and useful advice for infant health

“[The text messages received] are interesting. Monitoring the baby from birth, hygiene advice and advice on nutrition were all so new for me. I particularly liked the various recipes for babies, and the tips on cooking and preparing carrots and potatoes.

And now I can see that my baby is big, despite having been small at birth. What I like the most is that this advice is beneficial for my family because we don’t go to the doctor often. Since receiving the messages, my baby hasn’t been sick and is in good health.”

Mrs. Rasoanirina, the mother of a 9-month old baby and a resident of the Ambohimangakely *fokontany*, Antananarivo

A NATIONAL CAMPAIGN: REACHING AS MANY PEOPLE AS POSSIBLE

To complete community-based and mobile telephony awareness-raising strategies, GRET developed a media campaign. This campaign made it possible to reach a very wide audience across the country, in both rural and urban areas, made up of four direct target groups and indirect target groups (fathers, grandparents, specifiers, etc.). It enabled repetition of the messages conveyed during awareness-raising activities in communities, and vice versa. The various channels of the strategy worked in synergy, reinforcing each other.

Video clips on products for awareness-raising through film screenings followed by debates were also used as advertisement spots on TV, in addition to three to seven radio spots per target group on messages produced by the overall strategy. The ONN and the Ministry of Health co-constructed and validated the tools that were broadcast on certain national and regional media channels.

- In total, 22 radio spots were broadcast over 2,500 times.
- In total, five TV spots²⁰ were broadcast almost 500 times.
- Estimated coverage: 240,000 households saw a TV spot and almost 663,000 families heard a radio spot.



A film screening and debate session organised in Antsirabe

20. See table 6 on page 31.

FOCUS
ON

Covid-19: adapting in order to continue raising awareness

Faced with the Covid-19 pandemic, GRET adapted its strategy to the health measures in order to be able to continue its awareness-raising activities. In April 2020, in situ events, such as group meetings, film screenings and debates, and collective festive events had to be suspended, and the campaign in schools was postponed.

In response to these constraints, GRET organised home visits to targeted households. Awareness-raising messages on nutrition and food fortification were combined with messages to prevent the spread of Covid-19 (symptoms, barrier gestures, vulnerable profiles, etc.). Taking a more personalised approach, the objective was to firstly relay the messages and recommendations on Covid-19 issued by the Malagasy public authorities and international health bodies, and secondly to convey messages on healthy foods and nutrition during a pandemic. In total, almost 10,590 families were reached in May 2020. Dematerialised campaigns in the media and via mobile telephony continued in parallel.



WHAT THE EXPERTS SAY

Collective mobilisation based on the local dynamic

"The strong involvement of local partners is an indicator of project appropriation. The technical and institutional stakeholders and the target populations were involved in implementing the awareness-raising strategy. Everyone plays an important role in awareness-raising for behavioural change. The mother leaders support the target groups to understand and apply the messages received through various facilitation activities, such as theatre group meetings and collective festive events. The *fokontany* provides a framework for consultation with populations on the problem of malnutrition in women and children in their respective territories, at meetings held in neighbourhoods and per sector. The basic healthcare centres also participate in facilitating awareness-raising sessions during the various events around healthcare in neighbourhoods. They will safeguard the project's messages and relays."

Eulalie Ranaivosoa, operations manager, GRET

CONCLUSION

The awareness-raising strategy underwent multiple adjustments during the project in order for it to be as appropriate as possible to realities on the ground. However, one characteristic remained: the involvement at local level. The appropriation of the method by Malagasy bodies aimed to ensure continuity of the activities after the end of the project. The local authorities (*fokontany* chiefs and basic healthcare centres, regional bodies, prefects, district chiefs, traditional authorities, etc.) were involved via numerous local and regional workshops that presented the project and the progress it was making. In addition, an entire component of the awareness-raising strategy was implemented by the populations themselves (community-based officers, families, teachers and pupils, etc.). Lastly, the ONN in particular, but also the Ministries concerned (Public Health, National Education), participated in validating tools, and planning and implementing the strategy.

GRET's capacity to ensure participation by the Malagasy public authorities also contributed to the structuring of a national public policy on food fortification. ●



Community-based stakeholders receiving their certificates in the Maevatanana district



Official presentation of the fun awareness-raising tools for public primary schools at the Manjakaray public primary school



A group meeting session at the community-based officer's premises in Amboditsiry, Antananarivo



Measuring a school-age child's height to evaluate his nutrition status

PART 3

Strengthening the national public policy on food fortification

Prior to the PFOA project, Madagascar had no national quality standards for complementary foods, and no regulations pertaining to production and marketing of fortified foods. Consequently, many products available on the market and referred to as “fortified” in fact had poor nutritional quality and/or were manufactured in unsupervised sanitary conditions. GRET supported the emergence of a favourable environment for growth in public and private investments to fight against micronutrient deficiencies. It supported the revitalisation of a framework for multi-sectoral consultation on food fortification, and a legislative and regulatory framework at national level.

NATIONAL DISCUSSION PLATFORM: REACTIVATING A FRAMEWORK FOR MULTI-STAKEHOLDER CONSULTATION

The National alliance for food fortification (ANFA) brings together stakeholders involved in the food fortification sector: public authorities, industrials and businesses, as well as international organisations. It was set up in 2008 under the coordination of the ONN and is chaired by the Minister of Public Health, with the objective of strengthening national food fortification programmes. Although its structure was clearly defined by Ministerial order, it had however been on standby since then.

GRET supported the revitalisation of this platform with a view to defining and implementing a national food fortification strategy. Among its missions, the ANFA is responsible for certification of fortified foods under the Tovoantsoa label, whose specifications were updated by the Malagasy Standards Agency (BNM). In 2021, this label was as yet rarely used and the ANFA will need to promote it.

The platform is divided into four commissions (technical, communication, monitoring and evaluation, standards and regulation), which are coordinated by a steering committee which needed to be re-boostered. As part of the project, the following activities were conducted:

- a press conference to mark the launch;
- the first ANFA General Assembly;
- five meetings of the ANFA steering committee;
- workshops to develop and validate the national food fortification strategy.



WHAT THE EXPERTS SAY

The project's direct contribution to implementation of the public policy

"The project contributes fully to achieving the PNAN III, and more specifically to intervention 5: revitalisation of the ANFA and fortification of staple foods. These two activities were achieved thanks to the reactivation of the ANFA in 2018, to the organisation of its General Assembly, the implementation of specifications for the Tovonantsoa logo, and the support provided to infant flour producers for use of the Tovonantsoa label. The implementation of the framework for the infant flours quality standard and the success of this experience enabled other projects to acquire quality standards: garri and breadfruit."

Fanjaniaina Rasoamiadana, community nutrition manager,
lead ANFA staff member at the ONN

STANDARDS, REGULATIONS AND CERTIFICATION: SUPPORTING THE DEVELOPMENT OF A LEGISLATIVE FRAMEWORK

● STRUCTURING A LEGISLATIVE AND REGULATORY FRAMEWORK...



The auditor from the Malagasy Standards Agency debriefing Nutri'zaza's quality manager

Thanks to GRET's long-term advocacy work and collaboration between the stakeholders concerned, a standard²¹ entered into force on infant flours consumed as complementary foods, whether they are fortified or not. It was written by the BNM based on an existing standard, then discussed and validated by a multi-stakeholder technical committee set up by the BNM. This committee was made up of the BNM, GRET, the ONN, the Ministers of Trade and Health, consumer rights representatives, national research laboratories and private sector infant flour producers, including Nutri'zaza.

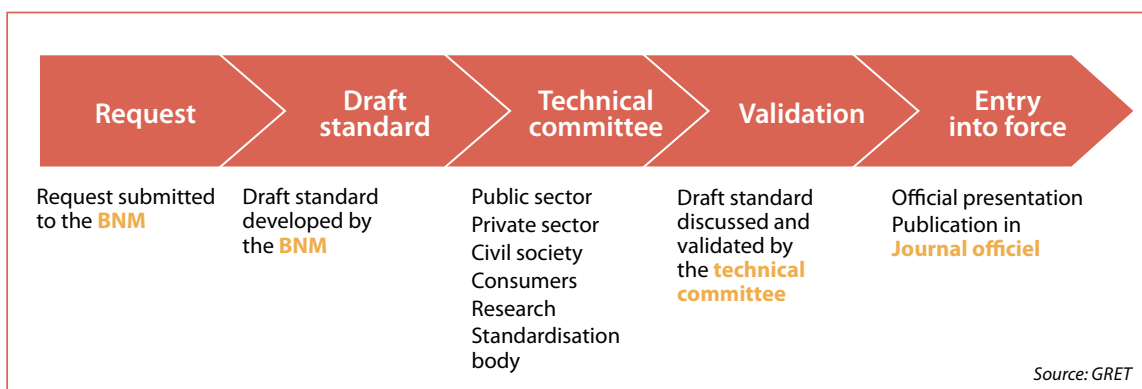
The new standard was officially presented at the August 2019 ANFA General Assembly, marking its

entry into force, and published in the *Journal officiel de la République de Madagascar* in June 2020²². It contains all the information required, in particular criteria in terms of nutritional and microbiological qualities, criteria on chemical contaminants, applicable analysis methods and requirements concerning labelling and storage.

21. BNM (2019), Farine infantile en tant qu'aliment de complément au lait maternel – Spécifications, Antananarivo, BNM, 13 pages, Malagasy standard – NMG 103-5.

22. Order N°11 385/2020 of the Ministry of Industry, Trade and Crafts on homologation of national Malagasy standards.

Figure 5: THE MALAGASY INFANT FLOURS STANDARD DEVELOPMENT PROCESS



WHAT THE STAKEHOLDERS SAY

Working in a stakeholder coalition to boost the national food fortification strategy

“The reactivation of the ANFA and the adoption of a standard by ministerial order in such a short time are a true success. They demonstrate the importance of working together. Nutrition involves various areas and in this regard the involvement of the private sector is vital. The State plays a major role in strengthening the private sector working in nutrition by supporting it, working alongside private businesses in areas where they request state support. The private sector working in nutrition plays an important role in the fight against malnutrition in Madagascar, and is one of the pillars in the implementation of the National action plan for nutrition. It is in the interest of the State to work in stakeholder coalitions. These are win-win partnerships, provided that the role of all parties and the common vision are defined upstream. The momentum initiated by the partnership with GRET contributed to launching the draft project and stimulating commitment among the various stakeholders.”

Professor Hanta Marie Danielle Vololontiana, national coordinator of the ONN



WHAT THE EXPERTS SAY

A standard implemented in accordance with regulations

“The standardisation work around the Malagasy standard for infant flour was conducted directly by the BNM, and the standard was approved in 2019. Now that it is validated, it can be used as a tool for the implementation of reliable regulation that is accepted by all stakeholders in the food fortification sector. The operationalisation of the process for certification of infant flours according to standard NMG 103-5 is among the activities conducted to enforce Law N° 97-024 of 14 August 1997, on the national standardisation regime and the certification of products, goods and services.”

Séraphin Razafimahafaly, managing director, BNM

Strengthening consumption of fortified foods to fight against malnutrition

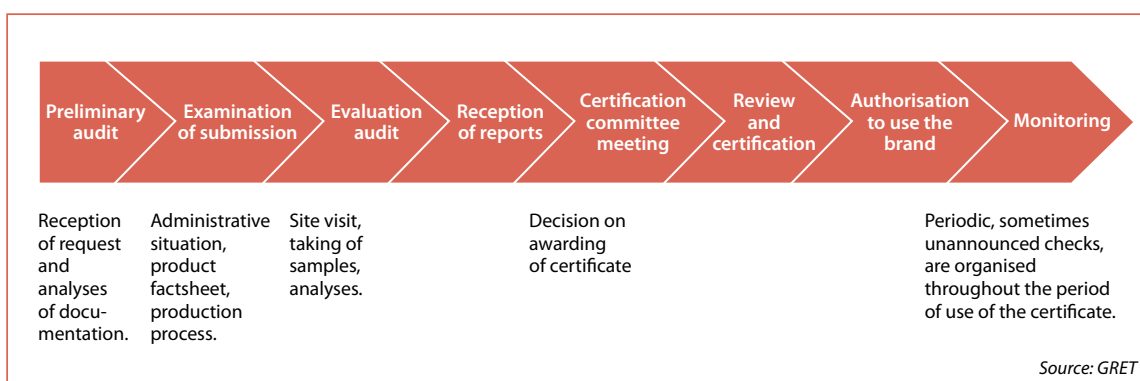
Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

● ...AND PUTTING IT INTO PRACTICE

After the standard entered into force, GRET supported the implementation of a process for certification of complementary food producers and a technical certification committee under the direction of the BNM.

In parallel, the standard and the certification process were disseminated. National and regional workshops, as well as communications in the media, made it possible to present the legislative and regulatory framework to nutrition stakeholders and industrialists. In addition, the BNM delivered theoretical training on the certification process to the producers concerned and supported them in their compliance with the standard and the Tovonantsoa specifications. In this regard, Koba Aina is the first product (and the only one to date) to have been certified in accordance with the Malagasy standard on fortified infant flour, standard NMG 103-5, awarded by the Malagasy Standards Agency (BNM). Five private businesses expressed their interest in entering into the certification process and were supported by the BNM technical team. It is planned that the Food safety and quality agency (ACSQDA) will be called upon and supported to ensure quality control in businesses.

Figure 6: STAGES IN THE CERTIFICATION PROCESS



The project, the ONN and the BNM awarding certificates to the Nutri'zaza team after it was trained on the certification process



Awarding of certification after training for the five infant flour producers interested in brand certification for their products



WHAT THE EXPERTS SAY

Projects with institutional anchorage

“The involvement of public authorities in projects is absolutely vital. Some interventions – such as the definition of public policies – are part of their functions, but sometimes require a scientific vision on a substantive issue. This is where NGOs and projects come in, contributing their technical added value and their experience. It’s really complementary work.

The PFOA project participated directly in the implementation of the PNAN. For example, the revitalisation of the ANFA, and the resulting discussions, reflections and workshops, contribute to the national strategy on food fortification, and more generally to the fight against malnutrition in Madagascar. The project has real institutional anchorage.”

Andrimampionona Razakandrainy, PFOA and PENIM project manager, GRET

CONCLUSION

The structuring of a framework for multi-stakeholder consultation and of a national legislative framework on food fortification is one of the main achievements, and its sustainability is ensured. Certification and awareness-raising among private stakeholders had an initial focus on industrials and the formal sector. The issue of involving the informal sector, which plays a huge role in the Malagasy economy, will therefore have to be raised in the future. ●

CONCLUSIONS AND RECOMMENDATIONS

Public-private partnership for greater sustainability

As part of the PFOA project, GRET and Nutri'zaza worked in stakeholder coalitions through the involvement of the public and private sectors, civil society and research. This approach led to the setting up of the programme's steering committee. The latter supported the project's intervention, taking a participative approach at local level (community-based officers and families, teachers and pupils, fokontany chiefs and basic healthcare centre managers, etc.). This dual institutional and community anchorage was a structural factor contributing to the sustainability of the action beyond the project.

Although the programme's impact on the reduction of chronic malnutrition is difficult to measure in the short term, its intervention significantly strengthened the nutrition capacities of the women and men targeted by the project, as well as those of local stakeholders, and demonstrated the benefits of an approach based on the private nutrition sector.

INVOLVEMENT OF THE PRIVATE SECTOR IN THE FIGHT AGAINST MALNUTRITION

- The Nutri'zaza experience demonstrates that it is possible to sustainably market quality foods intended for vulnerable populations. The product offer was co-constructed taking a bottom-up approach, whereby realities on the ground (populations' needs, expectations, financial capacities and aspirations) were taken into account as well as the technical aspects. Focusing on consumer satisfaction, while respecting their needs and local food habits, is more effective in reaching consumers than health-based arguments alone. The definition of differentiated distribution and promotion strategies that are suited to the context, and in response to consumers' specific needs, makes it possible to reach as many people as possible.
- It is important to support private sector nutrition businesses because it can combine economic profitability, social impacts and sustainability. Businesses engaged in this dynamic valorise local value chains and create jobs. Their commitment is sustainable because marketing of fortified products is profitable for them, even though profit margins are low in order to take vulnerable populations' purchasing power into account. This approach empowers families who, aware of the benefits of these fortified products, invest in their children's food. Even during the Covid-19

pandemic that emerged in 2020 and generated a considerable decrease in households' purchasing power, the level of sales was more affected by businesses' lack of capacity to provide the product (because of lockdown) than by a decrease in purchases by families.

- This market-based strategy is complementary to emergency aid provided by public institutions and NGOs to deal with these nutritional crises. However, these exceptional measures, which are costly for the State and its partners, must in parallel be part of a more sustainable approach taken by the private sector. Appropriate targeting of beneficiaries is crucial to avoid breaking down the market, which would have detrimental consequences on households' virtuous habits and on the economic stability of businesses marketing fortified products for young children.
- Evolution of Koba Aina sales demonstrated that households' consumption was very sensitive to the price of the product. It is therefore important that the State supports businesses involved in nutrition so that they can propose products at the best possible price. The public sector's contribution could take the form of tax exemption (VAT, tax on imports of mineral and vitamin supplements, etc.).

INNOVATIVE AWARENESS-RAISING METHODS

- The PFOA programme involved healthcare, nutrition and education institutions in the co-construction of awareness-raising campaigns favouring behavioural change among families. This resulted in the development of tools and innovative channels in line with the population's needs (awareness-raising *via* mobile phones and tv spots, fun tools for primary schools, etc.). In addition, the project made it possible to strengthen the capacities of institutions in terms of nutrition and concerning the use of these communication channels. These tools can be disseminated beyond the project among nutrition partners, and valorised in nutrition policies.
- The use of social marketing to introduce a fortified food, in addition to a communication strategy for behavioural change focusing on recommended infant and young child feeding practices, influences more sustainable nutrition behaviours and triggers adequate consumption of fortified foods.

STANDARDS NECESSARY TO CONTROL THE MARKET

- It is essential to strengthen the legislative context to provide a framework for action by the private sector and improve communication intended for consumers in order to reassure the latter with regards the nutritional quality of the products offered by the market. This regulation is also necessary for businesses to protect themselves from unfair competition from other products that do not comply with standards. The PFOA project supported the BNM and the ANFA to develop and disseminate this standard. This work will be continued over the long term to promote the standard and ensure products on the market are controlled.
- In 2021, the Code of breastmilk substitutes was being revised in Madagascar. It is mainly intended to protect breastfeeding practices. However, it must also encourage complementary feeding practices for children aged 6 months and over, enabling businesses marketing foods for children to promote their products, while controlling them. ●

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

Table 7: MONITORING OF THE PROJECT'S KEY INDICATORS

| Indicators | Values achieved | Target values |
|---|---------------------------------|--|
| Number of districts covered by actions to distribute and promote the quality fortified complementary food. | 45 districts | 45 districts (year 5) |
| Number of children aged 6 to 24 months who accessed a quality fortified complementary food. | 878,600 children | 900,000 children (years 1-5) |
| Number of operational points of sale where the quality fortified complementary food can be purchased in the target zones. | 8,212 points of sale identified | At least 8,000 points of sale (year 5) |
| Number of households affected by the awareness-raising actions at community level on the use and consumption of fortified complementary foods, healthy diet and nutrition. | 663,422 | 700,000 households (years 1-5) |
| Number of new quality fortified products accepted, accessible, developed and distributed in the pilot target zones. | 2 | 3 (year 5) |
| Number of children aged 2 to 5 who have access to the fortified products promoted. | 305,000 | 150,000 children aged 2 to 5 |
| Quality standard for fortified complementary foods. | 1 | 1 (year 4) |
| Number of workshops to promote the standard among the stakeholders concerned. | 3 | 3 workshops (year 5) |
| Definition and implementation of the monitoring and evaluation system. | 1 | 1 (year 4) |
| Conduct and analysis of a study on the effectiveness of fortified infant flour consumption, combined with promotion of responsive feeding, on reducing anaemia, micronutrient deficiencies and delayed growth in infants. | 1 | 1 (year 5) |

Source: GRET



Children consuming the porridge in a hotelin-jazakely



Children who benefitted from the project in Toamasina

Strengthening consumption of fortified foods to fight against malnutrition

Feedback from the experiences of the Food fortification programme for vulnerable populations in Madagascar

WHAT THE STAKEHOLDERS SAY



Working in stakeholder coalitions as closely to populations as possible

"Food fortification is an instrument in its own right for the fight against malnutrition. In this regard, it is important that various stakeholders interact with each other. The PFOA project worked towards this thanks in particular to GRET's experience in Madagascar and its relationship with official structures in the public sector, the private sector, the scientific community and civil society.

But it is above all the immense community-based work, conducted on a daily basis among local populations by the community-based officers and Nutri'zaza facilitators to provide information on best feeding practices, on fortified products and their benefits, that enabled the PFOA project to achieve several of its objectives."

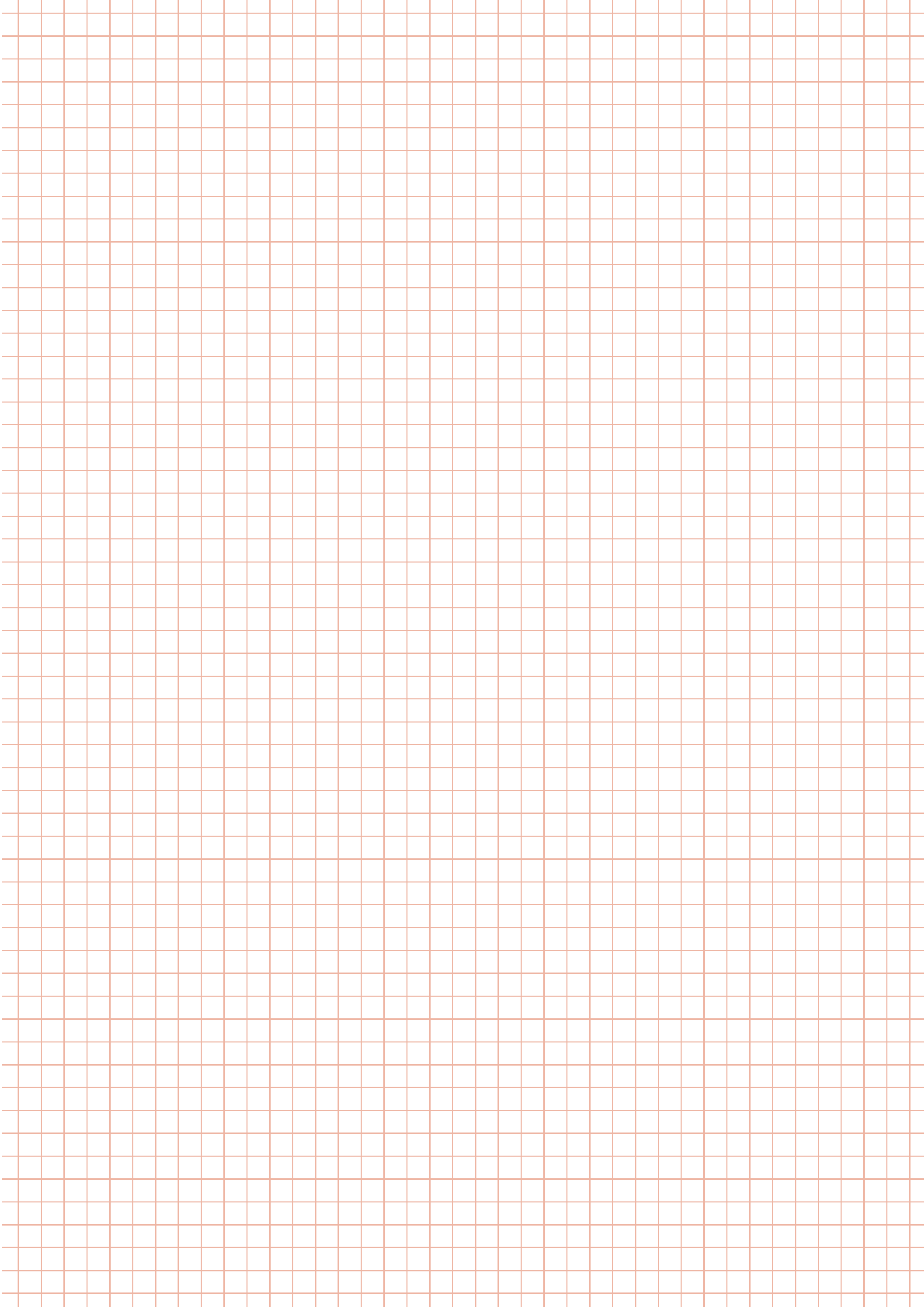
Olivier Machiels, Rural development programme manager with the European Union Delegation to Madagascar and the Comoros



An innovative transversal approach adapted to populations' situations

"Promoting best practices is a crucial lever to fight against malnutrition. Yet, behavioural change can only happen if everyone is involved. One of the project's strong points is that it implements innovative complementary awareness-raising strategies, using new technologies that are available and enable a large number of people to be reached, all the while adapting to the context. In addition, the project is anchored in communities, allowing it to remain close to populations, as well as having strong public authority involvement."

Natacha Tang, coordinator of the Monegasque Cooperation for development in Madagascar



Printed in February 2022 by ISIPRINT

Legal deposit: February 2022

STRENGTHENING CONSUMPTION OF FORTIFIED FOODS TO FIGHT AGAINST MALNUTRITION

*Feedback from the experiences of the Food fortification programme
for vulnerable populations in Madagascar (2017-2021)*

In Madagascar, nutrition is still very widespread, especially among women and children. Less visible and more forgotten than acute malnutrition, chronic malnutrition is related in particular to a risk of delayed growth and cognitive development in children, and after the age of two, it leads to irreversible consequences. It is partially caused by insufficient consumption of nutrition-rich diversified food, due to populations' difficulties in accessing affordable quality products, and poor knowledge of recommended nutrition practices.

GRET has been working in Madagascar since the 1990s to improve infant feeding. The Food fortification programme for vulnerable populations in Madagascar (PFOA), conducted from 2017 to 2021, aims to strengthen the nutrition status of populations suffering from micronutrient deficiencies. Conducted in partnership with the Nutri'zaza company, a social business fighting against malnutrition in Madagascar, and with other stakeholders in the public and private sectors, civil society and research, it contributed to sustainably improving access to fortified foods and their consumption.

With the support of the European Union, it developed its intervention through three areas of focus, which are presented in this document: the development and marketing of locally manufactured fortified products that are suited to the local context, improvement of populations' knowledge, attitudes and practices – in particular thanks to the support of the Principality of Monaco via the Programme for innovative nutrition education in poor urban areas in Madagascar (PENIM) – and strengthening of national public policies on food fortification.

WITH FINANCIAL SUPPORT FROM:



The content of this publication is the sole responsibility of GRET and can in no way be considered as reflecting the point of view of funders.

IN PARTNERSHIP WITH:



Campus du Jardin d'agronomie tropicale de Paris
45 bis avenue de la Belle Gabrielle
94736 Nogent-sur-Marne Cedex, France
Tel. 33 (0)1 70 91 92 00 – www.gret.org

ISSN 2677-9803
ISBN 978-2-86844-337-3



9 782868 443373