



Final Technical Report
Responding to the food prices crisis by accelerating the fortification of staples in vitamins and minerals in Senegal and Mauritania, June 2009 – April 2013



Initial duration of the Project: 36 months from July 7, 2009 to May 31, 2012

Extension: Through April 2013

Total duration of the Project: 46 months.

Target countries: Senegal and Mauritania

Funding: OFDA/USAID: N° DFD-G-00-09-00209-00

Budget: \$1 864 049

HKI Headquarters Contact:

Jennifer Nielsen
Helen Keller International
352 Park Avenue South, Suite 1200
New York, NY 10010
Tel: 646-472-0321
Fax: 212-532-6014
jnielsen@hki.org

HKI Senegal Contacts:

Aminata Ndiaye Coly,
Aboubacry Thiam
Helen Keller International
N° 1A, Immeuble sis au 28, Nord Liberté 6.
VDN× Route du Front de Terre - Dakar.
Tel: (221) 33.869.55.01
Fax: (221) 33.827.24.06
andiaye@hki.org
athiam@hki.org

TABLE OF CONTENTS

THEMES	PAGE
1. Introduction	3
2. Summary of Key Accomplishments	3
3. Creation of Enabling environment	5
4. Production & Distribution	6
5. Legislative Framework and Quality Assurance	7
6. Social Marketing and Communications	7
7. Monitoring Evaluation	11
8. Conclusions	12
Annex: Fortification Contacts	14

1. INTRODUCTION

Micronutrient deficiencies are major public health concern in many developing countries. West Africa is among the regions with the highest public health impact of micronutrient deficiencies.

In Senegal and Mauritania, the precarious nutritional situation has been compounded by the important increase in food prices in 2008 combined with the two successive bad rainy seasons. A large proportion of the population suffers from vitamin and mineral deficiencies especially iron deficiency anemia, zinc deficiency and vitamin A deficiency. Women and children, who have special nutritional needs, are particularly at risk, with implications for maternal health and well being, as well as the survival, growth and development of children. Vitamin and mineral-rich animal foods are particularly beyond the reach of the poorest populations, the added problem of higher staple food prices will increase the severity of the micronutrient malnutrition such as iron and vitamin A deficiency. This situation could slow progress toward achieving the MDGs; in particular, those related to child mortality and maternal health.

Helen Keller International's project "**Responding to the Food Price Crisis by Accelerating Vitamin and Mineral Fortification of Staples: Senegal and Mauritania**" was developed to address these challenges. The goal of this project was to mitigate the impact of the food price crisis on iron, zinc, and vitamin A deficiencies through the fortification of wheat flour with iron/folic acid and zinc in Senegal and Mauritania, and cooking oil with vitamin A in Senegal. The project started in July 2009 (original end date may 31, 2012) with a total funding of \$ 1,864,049, and was coordinated by the Senegal office of Helen Keller International in collaboration with the West Africa regional office of OFDA and the UNICEF office in Mauritania.

This final technical report describes the activities of the fortification project implemented over the life of the project from July 7, 2009 to April 30, 2013.

2. KEY ACHIEVEMENTS

The major achievements of the project include:

In **Senegal** a national decree was passed in September 2009 making mandatory the fortification of flour with iron and folic acid and of oil with vitamin A (Presidential Decree Number 2009-872 of Senegal). In addition, a strategic plan was approved to guide Phase II of food fortification, covering the period 2012-2017, following the successful implementation of Phase I under the strategic plan of 2006 to 2011.

The project reinforced industrial capacity for the production and distribution of oil and flour fortified with vitamins and minerals. This has significantly expanded coverage of fortified food in Senegal.

- All the major flour mills in Senegal (GMD, Sentenac, NMA) were provided micro feeders, initial micronutrient premix, support for the development of operational systems and training to implement flour fortification in Senegal.
- The project provided technical support and equipment to the quality control laboratory of the Department for Domestic Trade (the national governmental body responsible for quality control of fortified foods), and provided equipment to the laboratory of Cheikh Anta Diop University of Dakar (responsible for research on fortified foods) which enabled these institutions to assure that all fortified foods meet specifications for micronutrient levels stipulated in national quality standards.
- Equipment provided to the cooking oil and flour milling industries are now being properly maintained and regularly calibrated by the industries, ensuring effective operation. All producers/processors are currently supplying fortified food in conformity to national standards.

The project also provided support for the development and roll-out of a social marketing and communication strategy, including:

- Support for a formative study to understand and better promote consumer knowledge, acceptance and demand for fortified foods.
- A fact sheet on food fortification to sensitize partners about health impacts.
- A booklet answering 10 frequently asked questions (FAQ) on food fortification, to sensitize all the multi-sectoral public and private sector stakeholders about health impacts.
- A technical handbook outlining the operational and quality control guidelines for industries engaged in food fortification of wheat flour and vegetable oil
- Televised advertisements on fortified foods that were diffused on prime time television and reproduced on DVD for widespread dissemination by major national and regional television channels
- The launching of social marketing around the fortification logo branding fortified foods to help consumers identify fortified foods and the benefits of consuming them
- Dissemination of counseling brochures on fortified foods for direct interpersonal communications
- Complementary technical and financial support (by GAIN) to support a social marketing media campaign on fortified foods over a five-year period.
- Expanded regional social marketing campaign across West Africa in partnership with the regional television station Africable, using a caravan campaign to sensitize consumers and increase awareness and acceptance throughout the region covered by the regional food fortification initiative “Fortify West Africa” catalyzed with USAID funding.
- Development and piloting of a pre-service nutrition curriculum for health training schools.

The project strengthened institutional capacity of the National Fortification Alliance (COSFAM) by supporting their participation in sub-regional workshops on industrial food fortification and through their active engagement in all aspects of project implementation.

Accomplishments in **Mauritania** include:

- Advocacy at the highest political levels, leading to a decree by the Prime Minister making mandatory the fortification of oil with vitamin A and of wheat flour with iron, zinc, folic acid and vitamin B12.
- The development of fortification standards for flour and oil
- The development of a strategic plan for the fortification of key staple foods with essential vitamins and minerals
- The creation of a formal national alliance for food fortification
- Assuring the fortification of 49% of domestically produced flour with iron, zinc, vitamin B9 and vitamin B12 through
 - Providing necessary equipment to the two biggest milling industries (*Grands Moulins de Mauritanie* and *Moulins du Sahel*)
 - Sourcing of the premix of required formulation to use and support for initial supplies of this premix purchased by these key manufacturers
- Strengthening capacity for quality control through technical evaluation of the capacities of the National Institute for Research in Public Health (INRSP), training of INRSP staff in the quality control procedures for fortifying cooking oil and wheat flour, and support for staff participation in a sub-regional workshop on harmonizing the quality control methods
- Development of social marketing tools and conduct of initial mass and local communication campaign to raise public awareness of the importance of micronutrients and of food fortification as a public health strategy.
- Support to strengthen the institutional capacity of the national fortification alliance (*Alliance pour la Fortification des aliments en Mauritanie-AFAM*) to implement national fortification plan and through staff participation in sub-regional workshops on food fortification.

3. CREATION OF AN ENABLING ENVIRONMENT

The creation of an enabling environment includes defining the fortification policies, legislation, implementation, monitoring and evaluation. For the purposes of this project it also included:

- the establishment of an alliance for food fortification to advance the program
- the development of a strategy for the roll-out of food fortification.
- establishing policy and legislative frameworks
- capacity building of private and public sector institutions

Senegal

In Senegal, a five-year strategic plan was developed in 2006, before the introduction of the OFDA project, and a national fortification alliance, “COSFAM,” (*Comité Sénégalais pour la Fortification des Aliments en Micronutriments*) was formed including representatives of the Prime Minister’s Office through its Malnutrition Control Unit (CLM), the Nutrition Division of the Ministry of Health, the Ministry of Industry, manufacturers, and development partners, HKI, the Micronutrient Initiative (MI) and the Global Alliance for Improved Nutrition (GAIN), and civil society. The OFDA project contributed to the development of a new strategic plan for the second phase of food fortification in Senegal, spanning the period from 2012 to 2017.

Mauritania

In Mauritania, there were no initiatives or organizations advocating for fortification at the advent of the OFDA project, there were only some research studies indicating its potential for addressing vitamin and mineral deficiencies. Normally, the introduction of a formal framework for fortification should precede the implementation of the actual operations, but in light of the short project life and bureaucratic challenges, the project team decided to initiate program activities while working concurrently on the creation of a fortification committee and a strategic plan. By the end of the project in November 2012, the launching of a fortification committee and strategic plan were well underway. A decree issued by the Head of State made fortification mandatory, although not all flour millers are yet capable of meeting this requirement.

4. PRODUCTION AND DISTRIBUTION

Production and distribution gets fortified products into the market and ensures optimal coverage.

SENEGAL

In Senegal, objectives under production were all achieved: an evaluation by an independent consultant of the capacity of the flour mills for fortification; the purchase of premix and micro-feeders; and development of a fortification handbook. Support for distribution proved more challenging, as each manufacturer uses its independent distribution network and these involve numerous other actors (importers – traders, wholesalers and retailers). Under mandatory fortification policy however, the expected target of the population reached with fortified oil and flour remain high. The coverage is estimated to exceed 70% of the overall population.

MAURITANIA

In Mauritania, the original strategy aimed to support the country’s two main millers (Grand Moulin of Mauritania and Moulins du Sahel), but stakeholders subsequently discovered six additional medium scale mills, which as a whole produce about 51% of the soft wheat flour in the country. These medium scale producers were not able

to join the fortification efforts due to their limited resources; therefore a sizeable portion of the local supply is not yet fortified. Premix and micro-feeders were procured and installed for the two main millers, while the other producers are not yet able to meet the requirements. Mauritania agreed to adapt the UEMOA food fortification handbook, and this was completed with support from the project.

5. LEGISLATIVE FRAMEWORK AND QUALITY ASSURANCE

Establishing a legislative and standard regulatory framework to assure the quality of fortified foods is crucial for protecting the health of consumers, assuring they are reached with required levels of micronutrients.

SENEGAL

In Senegal, standards for oil and flour fortification were established before project start-up. The project therefore focused on building capacity for quality control, procuring analytical devices and equipment for the laboratories of the government's Department of Internal Commerce and for the Nutrition Biochemical Department of Cheikh Anta Diop University. Staff from the national alliance for food fortification were also trained through various workshops on quality control systems.

Current levels of vitamin A in fortified oil in Senegal are within the recommended range of between 11 to 24mg/kg (ppm). Wheat flour is fortified at 60ppm of iron and 2.06ppm of folic acid as stipulated under WHO recommendations for per capita consumption of flour ranging between 75 to 149g per person per day. Senegal is working on revised standards which will also include alternative sources of iron, such as sodium iron EDTA. Currently all the countries in the West Africa Economic Monetary Union (WAEMU) including Senegal, are using ferrous fumarate as source of iron.

MAURITANIA

In Mauritania, the project has supported the efforts of the National Department for Promotion and Quality to establish fortification standards. A set of standards was adopted on November 10, 2010. In support of quality control, the project financed a technical evaluation and the training of the staff of the Institute of Research on Health within the Ministry of Health. Capacity building also included supporting their participation in sub-regional workshops on harmonizing quality control monitoring and standards on fortified food.

6. SOCIAL MARKETING AND COMMUNICATION

This project component was intended to raise public awareness of the value of fortified foods and raise consumers' awareness of the meaning of the fortification logo in order to prevent fraud. Ideally, under mandatory fortification legislation

fortified staples ultimately cover 100% of supply, so that consumers do not need to choose or pay more for them (thus behavior change is not required and benefits are automatic for the overall population including women and children), but social marketing can help encourage consumers to identify the fortification logo and recognize the benefits and added value of consuming fortified foods. The producer is also encouraged to comply with standards by ensuring required levels of micronutrients are added to the food and reach consumers.

SENEGAL

Several tools were developed and diffused nationally:

- A fact sheet describing the Senegal food fortification program and its various components, the health benefits of fortified foods, and key contacts and references.
- Frequently Asked Questions about Food Fortification, which provides information in a simple and engaging way through a dialogue between the fortification mascot and a Senegalese family curious to know more about fortification and its benefits. This booklet has been disseminated at exhibitions, forums and health training schools.
- Various publicity campaigns including televised documentaries on fortified foods designed for the official launching of fortification in Senegal, which presents the scope of deficiencies in vitamins and minerals, how fortification is one of the strategies for reducing micronutrient deficiencies, and introduces COSFAM, the fortification alliance, and fortification partners. These were broadcast on prime time TV (before and/or after the news for a week period on the national channel) and reached a broad national audience. Following the launching, the publicity and documentaries were reproduced on DVD format in two languages (French and Wolof) and shared widely at various meetings throughout the country.
- Televised interviews to draw attention to the launching of fortification in Senegal. The appearance of highest level governmental authorities (The President of the Republic and the Minister of Industry), the highlighting of the Presidential Decree making fortification of oil with vitamin A and wheat flour with iron and folic acid mandatory made this a particularly powerful communication vehicle.
- Counseling brochures to promote the consumption of foods fortified with essential vitamins and minerals.
- Formative research indicated that the most effective channels for promoting acceptance and the demand for fortified foods were local community agents. Thus the project supported development of communication tools for local communities using self-explanatory pictures and seven sheets explaining the importance of key micronutrients, foods naturally containing these, and promoting fortified foods as complementary sources. The tool was approved by the Ministry of Health's Health Education and Information Service

(SNEIPS) and was introduced in a preliminary phase in the health district of Thies, through district and regional health teams as well 600 community relays. COSFAM is supporting the expansion of training and dissemination to 13 other medical regions.

- Creation of three movable displays (called Kakemonos in French after vertical Japanese scroll paintings): one describing the national strategic plan; one illustrating the production of fortified foods; and the third promoting the consumption of fortified foods by Senegalese families. These are used at various forums for the discussion of nutrition and fortified food production.
- A series of launching ceremonies to draw attention to the availability of fortified foods and national policies to promote food fortification.

The media campaigns were also organized to inform the population across the country, including remote areas, about the benefits of food fortification.

“Caravan” by Africable television channel

To celebrate the fiftieth anniversary of independence of most West African countries, the Africable television channel launched a caravan that crisscrossed West Africa over a 60-day period. HKI seized this opportunity to integrate cooking and tasting demonstrations to promote food fortification. The caravan assured significant visibility for fortification within Senegal and across West Africa. A key event was held in Dakar on May 8, 2010.

Media Campaign for fortified foods in Senegal

OFDA funds complemented an investment by GAIN to support a 5-year media campaign led by the *Léo Burnett-HMC-Omédia* agency, competitively selected by a team of reviewers from GAIN, HKI and the MOH's CLM. This included radio and television spots in French and Wolof, and additional strategies that are still being developed and rolled out.

Training for Consumer Protection Groups

In Senegal, there are two major consumer protection groups. The *Entente Nationale des Associations de Consommateurs* (ENAC) brings together 13 associations; and *l'Association des consommateurs du Sénégal* (ASCOSEN). Two representatives of each group attended a two-day training covering the rationale for fortification, achievements and challenges, and a visit to a factory for practical demonstrations on how food is fortified with micronutrients. The outcome was the development of an action plan through which the consumer groups could support the fortification efforts through various communications activities to help create demand for fortified foods in Senegal. The association members were also sensitized on the “ENRICHI” logo.

Information Dissemination through pre-service training

This activity piloted a pre-service curriculum on fortification in five health training schools in collaboration with the Ministry of Health training department. The course reviewed key micronutrients, the health impact of fortification; knowledge was assessed by a pre- and post-test. The pre-test indicated low level of understanding on nutrition and food fortification, while the post-test indicated significantly increased knowledge.

MAURITANIA

- **Social marketing tools:** The Frequently Asked Questions (FAQ) about Food Fortification was adapted from Senegal to the Mauritanian context. The Ministry of Health's health education service approved the tool and it was reproduced in in both official languages (Arabic and French) and has been used for an awareness campaign targeting urban communities in and around Nouakchott. In addition, counseling brochures on foods fortified with vitamins and minerals was developed in draft but has not yet been widely disseminated. The tool has potential importance for reaching Mauritania's scattered and mobile rural migrating populations.
- **Communications:** An event was organized to communicate the national strategic plan for food fortification and involved a range of actors (Ministry of Industry, millers, traders, partners (HKI, UNICEF, Action against Hunger, University, Direction for quality Promotion, The Institute for Health Research) supporting the fortification program.

Media Campaign

A competitive bid resulted in an award to the Mauritanian agency "Butterfly" to develop a media campaign. The strategy included development of the communication tools (billboards, radio and television commercials, including jingles and spots and their broadcast) and dissemination of the FAQ. Due to limited time, the communication campaign was limited to one month period.

UNICEF has been a strong supporter of food fortification and has expressed willingness to provide support to continue these communications efforts.

Training for Consumer Protection Groups

Mauritania has a total of 20 consumer advocacy groups. All the consumer groups were provided a two-day orientation covering the benefits of fortified foods, the program, its achievements, and challenges, and a visit to a flour mill. The various consumer groups developed an action plan to support the alliance for food fortification, particularly in its communication activities. Their action plan is included in the national strategic plan developed for 2012 to 2017.

7. MONITORING AND EVALUATION

SENEGAL

The proposal included a baseline study of micronutrient status but this was eventually funded by the Micronutrient Initiative (MI) and was completed in 2011 after food fortification was launched in Senegal. Thus, in consultation with COSFAM, the project team agreed to support a study of relevant knowledge, attitudes and practices that could be used to guide as well as evaluate the social marketing and communication campaign. The formative research showed low levels of knowledge of micronutrients and of food fortification and a preference for interpersonal communication channels. Additional findings shaped recommendations for communication tools (such as the FAQ brochure) to explain to the general public the strategy of fortification, the processes of fortification and the very modest impact on product prices. The survey indicated the public was prepared to pay a small increase in price for fortified foods, up to 100 CFA (\$0.20) more per kilogram or liter. (In fact, the price impact is almost negligible.) A copy of the study report was shared with various partners.

In light of the timing of the baseline study, it was not useful to conduct an endline survey within the life of this project, as time for impact on micronutrient status was too limited. GAIN and HKI plan to undertake a coverage survey on fortified food in Senegal by the end of this year.

MAURITANIA

A baseline study of micronutrient status was also planned for Mauritania, both to fill an important gap in data on micronutrient deficiencies and to help identify optimal food vehicles for fortification. After an extended call for tenders, only one bidder submitted a proposal, likely because of the limited technical capacity in Mauritania for such a complex study. The sole bidder, *l'Association Nutrition et Développement* (ANED), is a network of university researchers. HKI received authorization to proceed with this study in recognition of the need for the data; however, at the last minute during a review committee meeting a government participant insisted another candidate be considered for the work. In the end, to avoid this conflict of interest, HKI was obligated to cancel the activity.

However a study to evaluate the importation and distribution of cooking oil was conducted in the country's three main urban areas (Nouakchott, Nouadhibou and Rosso). Key findings include:

- There are many cooking oil importers, many in the informal sector;
- The oil sold in Mauritania comes mainly from Asia (Malaysia, Singapore, and Indonesia) and North Africa (Morocco, Tunisia) with a smaller quantity from Turkey.

- There are more than 21 different brands of cooking oil on the market.
- Oil is sold as imported, without further processing, and 99% is not fortified;
- There is no domestic oil industry and no players interested in launching one.
- Knowledge of fortification strategies among all actors (large traders, wholesaler and retailers) is very low (only 30% of large-scale traders, 0% of wholesaler and 4% of retailers have any knowledge).

As a next step, a sensitization workshop of all the major importers will be organized to move toward compliance with government mandatory fortification requirements.

8. Conclusions and Recommendations:

In Senegal the support of USAID has helped solidify the commitment of fortification actors (including the government, industry, civil society in general and consumer advocacy groups in particular, and other development partners), a process that has been advancing since 2002 through a broad public-private partnership. All the major flour milling industries and cooking oil industries are now fortifying 100% of their food produced for consumption in Senegal. It is estimated that over 70% of the population has access to fortified foods, since FRAT surveys indicated over 80% coverage of these food vehicles before the launch of fortification. Industries continue to invest in procuring their independent vitamins and mineral premix and ensure compliance to standards for fortifying wheat flour and cooking oil in Senegal. It is estimated that between 30 to 50% of the recommended daily allowance of vitamins and minerals are provided through fortified wheat flour and vegetable oil for iron, folic acid and vitamin A.

The remaining challenges to consolidate the system include further reinforcement of quality control, ongoing monitoring and evaluation of the impact of the fortification program, and the improvement of distribution networks so that fortified oil reaches the estimated 30% of the population that does not yet have access. The current strategic plan outlines the challenges ahead.

In Mauritania, the support from OFDA has built a solid foundation for the establishment of industrial food fortification in Mauritania, starting from a much more fragile platform. Work in Mauritania was more challenging due to the lack of an in-country presence by HKI, a strong private sector without a strong concern for public health issues, and the deregulation of the cooking oil industry which is based on imports with a multiplication of suppliers. Additional challenges were the fragmentation of authorities involved; for instance, the Department of Trade is officially responsible for quality control but does not have a laboratory facility, while INRSP has a strong laboratory but no authority.

The remaining challenges will be to engage and win the commitment of industry to fortification, perhaps through financial support or the effective enforcement of norms. Considerable advocacy will be needed over at least the next five years to move the process forward. HKI is confident that the solid commitment of Department of Industry, consumer advocacy groups and partners such as UNICEF will advance the next steps.

Currently 100% of the flour produced by the two major flour mills and covering 50% of the market for wheat flour is fortified. The six medium scale wheat flour industries must still be technically capacitated to begin fortification. With strong sensitization of all the major importers of vegetable oil, Mauritians could have access to 100% imported fortified vegetable oil complying to standards if the quality control monitoring systems is reinforced and effectively monitored.

In both countries, successful social marketing activities have increased demand by consumers and consumer associations for fortified food. Under the broader regional “Fortify West Africa” initiative, Helen Keller International will continue to engage stake-holders to continue to move towards sustainable universal fortification of all wheat flour and cooking oil with micronutrients to address the challenge of vitamin and mineral deficiencies in the region, including Mauritania.

**COORDINATION, IMPLEMENTATION, MONITORING & EVALUATION
CONTACTS**

SENEGAL

STRUCTURE	FUNCTION	NAME	CONTACTS INFO
Department of Industry	Presidency of the Senegalese Committee for the fortification of foods in micro nutrients	Mr Ibrahima Bass, Director of Industry President of Cosfam	basseibou@yahoo.fr ,
Institut de Technologie Alimentaire (ITA)	Coordination of the national policy on food fortification	Dr Ababacar Ndiaye, Cosfam Coordinator Dr Ndeye Fatou Ndiaye, Head of Nutrition ITA Cosfam Permanent Secretariat	dgita@ita.sn , nfndiaye@ita.sn , 00221 77 549 12 95
Unit to combat Malnutrition	Coordination of Nutrition Policies (Primature)	Mr Abdoulaye Ka, National Coordinator for the unit combating malnutrition	aka@clm.sn , 00 221 33 869 01 99
Senegalese Association for Standardization	Developing Norms	Mme Mame Sine Mbodj, Food Supervisor /CTRN-PA/NORM CERQ/UEMOA TECHNICAL Secretary	mamismb@yahoo.fr 00 221 33 827 64 01/ 00221 77 652 84 31
Department of Domestic Trade	Trade within Senegal	Mr Ousmane Mbaye, Domestic Trade Manager Mme Astou Mbaye	mbayeousou@yahoo.fr 00 221 77 651 84 74/ 00221 33 821 49 76 maquidadou@yahoo.fr 00 221 77 617 88 83

STRUCTURE	FUNCTION	NAME	CONTACTS INFO
Cheikh Anta Diop University of Dakar	Research	Mme Salimata Wade, Nutrition Laboratory Manager	enutsali@refer.sn , 00 221 77 639 86 30
RMS Agency	Social marketing Agency	Mme Ndeye Diagne, Research Manager	ndiagne@rms-africa.com 00221 33 820 88 48
POLYKROME	Printing company	Mme Barago Cissokho, Sale Representative	00 221 77 640 02 20
ROCHETTE DAKAR	Printing company	Mme Awa Seck, Sale Representative	00 221 77 575 49 20
NUMELITE, Rue de Thann	Printing company	Mr Bertauli, Sale Representative	00 33 889 11 99
MOULINS NMA	Mill industry	Mr Claude Demba Diop, Assistant Director	00221 77 639 68 44
MOULINS SENTENAC	Mill industry	Mr Ousmane Mbow Production Manager	00 221 77 648 97 82
MOULINS FKS	Mill industry	Mr Cheikh T. Mbengue, Communication Manager	00 221 77 638 62 75
MOULINS GMD	Mill industry	Mr Lionel Villepontou, Production Manager	Lionel.villepontoux@gmd.sn , 00221 33 839 97 93
SUNEOR	Oil industry	Mr BoulayeDado Camara, Environment Quality Director	00221 33 849 17 20 00 221 77 569 16 26
OLEOSEN	Oil industry	Mr Aliou Diouf, Oléosen Representative	00 221 77 458 62 78
CONSULTANT	Illustration	Lamine Dramé, Illustrator	00 77 658 59 52
CIVIL SOCIETY	Consumers group	Momar Ndao, ASCOSSEN President El Hadj Niang ENAC President	00 221 77 635 07 07 enacconsommateurs@gmail.com , 77 644 17 57

MAURITANIA

STRUCTURE	FUNCTION	NAME	CONTACTS INFO
Alliance for food fortification in Mauritania (AFAM)	Coordination of the strategy for national fortification	Mr Ousmane Wagué, Director of Industry, Ministry of Trade, of Industry, of Crafts and Tourism	wagueousmane@yahoo.fr ,
UNICEF	Development Partner	Mr Mamadou Ndiaye, Nutrition Manager Mohamed Baro, Nutrition Specialist	mandiaye@unicef.org , 00 222 35 71 42 / 45 29 98 38 mbaro@unicef.org 00 222 22 62 85 57/ 45 29 98 48
INRSP BP 695 Nouakchott	Research	Dr Brahim El Kory, Director of INRSP Dr Soumeye Mint Moustapha Chief of Laboratory	Melkory69@yahoo.fr 00 222 45 25 31 34 Fax 00 222 45 29 26 45 00 222 22 11 70 19
EXPERT	QUALITY CONTROL	Mme Astou Mbaye, Laboratory for the Department of Domestic Trade of Dakar	maguidadou@yahoo.fr 77 617 88 83
DEPARTMENT OF STANDARDIZATION AND QUALITY PROMOTION	Quality and Standardization	Mohamed Ould Abdallahi Ould Ethmane, Director	mdethmane@yahoo.fr 00222 45 29 42 29/ 36 60 56 29 BP 387 Nouakchott RIM
EXPERT	Norms	Mame Sine Mbodj, CTRN-PA/NORM CERQ/UEMOA Food Manager/Tecchnical Secretary	mamismb@yahoo.fr 00 221 33 827 64 01/ 00221 77 652 84 31

STRUCTURE	FUNCTION	NAME	CONTACTS INFO
BUTTERFLY Agency BP 1272 Nouakchott	Marketing and communication Agency	Mme Djinda Mamadou Bal, Agency Manager	djindah@yahoo.fr , 00 222 22 00 01 75
BETA.MR	Communication and popularization Agency	Sidi Mohamed Ould Bouh, Chief Executive	ouldbouh@beta.mr 00222 45 25 79 15/ 44 22 30 23
MINISTRY OF HEALTH	Health and Nutrition Education for health	Dr Mouhamadou Moustapha Kane, Nutrition Manager Mr Abdel Kader, Education Service for Health Manager	mmkane@sante.gov.mr , 00 222 22 24 37 96 00 222 22 24 37 93
MOULINS DU SAHEL	Mill industry	Mr Khayna, Trade Manager	khayna1100@yahoo.fr 00 222 46 78 72 77 BP 559 Nouakchott
GRAND MOULINS DE MAURITANIE ZI du Wharf BP 4407	Mill industry	Didier Balzarette, Chief Executive	didier.balzarette@gmoulins.com 00222 45 29 07 88/47 81 00 08
MAURITANIAN FEDERATION OF BAKERIES AND PASTRIES	Bakeries and pastries	Mr Dicko Soudani Moudou, Secretary General	baye_soudani@yahoo.fr , 00 222 46 48 07 83/ 36 31 29 62 BP 283 Nouakchott Mauritanie
CIVIL SOCIETY	Consumers group	Dr Mohamed Lemine Ould Khaless, President of National Coordination of Consumers groups	00222 46 41 45 09 00 222 36 30 59 45
ANED BP 3651	Research, Nutrition and Development	Dr Yacouba Diagana	dyacouba11@hotmail.com 00 222 46 41 27 02