

Mission report
Dakar, June 16-19, 2014

Bruno de Benoist, MD, IHS, Msc

I. Objective of the mission

To facilitate the workshop on the FACT survey, held in Dakar from 16th to 19th June 2014, jointly organised by CLM (Centre de Lutte contre la Malnutrition) and GAIN with assistance of Orange House Partnership (OHP).

II. Dates

16th -19th June 2014-07-03

III. Participants to the workshop

The workshop was attended by about 30 participants. They represented:

- ✧ Public sector
 - ▲ COSFAM (Comité sénégalais pour la fortification des aliments)
 - ▲ DCI (Direction du Commerce Intérieur)
 - ▲ LCI (Laboratoire du Commerce intérieur)
 - ▲ ASN (Association Sénégalaise des Normes)
 - ▲ ITA (Institut de Technologie Alimentaire),
 - ▲ Department of Nutrition, UCAD (University Cheikh Anta Diop), Dakar
- ✧ Private sector
 - ▲ Millers (Grand Moulin de Dakar, NMA),
 - ▲ Edible oil industry (OLEOSEN, SUNEOR),
- ✧ National and international NGOs
 - ▲ Consumer associations
 - ▲ HKI
 - ▲ MI
- ✧ International UN Agencies
 - ▲ UNICEF/Senegal
 - ▲ UNICEF/Guinea
 - ▲ WFP/Senegal

IV. Description of the workshop

Day 1

The first day started with several speeches during the opening ceremony: the Director of DCI, the Director of ITA, the Director of COSFAM, Dr Touré, Director of CLM and GS Garrett, GAIN.

The first working session focused on the nutrition situation in Senegal and the results of the FACT survey. The Director of COSFAM was the moderator. It started with Dr Touré's presentation on the nutrition situation in Senegal and the policy adopted by the Government to improve it. Various surveys showed that the three main deficiencies in Senegal are related to iodine, iron/anaemia and vitamin A. The main intervention

chosen by the Government of Senegal to eradicate these forms of micronutrient malnutrition is based on fortification. The salt iodization programme was put in place in the mid 90s while the fortification programme of wheat with iron/folic acid and vegetable oil with vitamin A was adopted in 2008 (fortification became mandatory in 2009), and then implemented by CLM under the coordination of COSFAM with the support of external agencies mainly GAIN, but also MI and HKI.

The remainder of the day was devoted to the presentation of the FACT survey and the discussion of the results. G. Aaron (GAIN) presented the methodology of the FACT survey and the results related to the fortification of wheat flour and the fortification of edible oil. The FACT survey is based on a new methodology developed by GAIN to assess the coverage of the fortification product in the population. Senegal is the first country where the new methodology was applied. The survey was national and focused on women of reproductive age and young children coverage. Only the results of women of reproductive age were presented because those on children were not analysed yet. The population was segmented into four categories: poor vs non poor, rural vs urban. The dietary survey was conducted by questionnaire. Samples of fortified foods were analysed for nutrient content (Iron/Folic acid in flour and Retinol in edible oil). The results show that 66% of women of reproductive age (WRA) consume enough fortified flour every day to reach 10% of their daily requirement (RNI) in iron and folic acid, and 70% of WRA consume enough fortified oil every day to reach 10% of their daily requirement (RNI) in vitamin A. The difference in the proportion of WRA consuming adequate RNI is 20% higher in the non poor WRA group when compared to the poor WRA group. In addition, the proportions of samples adequately fortified are 52% and 29% for wheat flour and oil respectively.

Following this presentation, the participants were divided into two groups to make recommendations on how to improve the coverage of the fortified products and the level of nutrient fortification. The Group discussions was moderated by B.de.Benoist (OHP) and introduced by a short presentation of G. Garrett during which the main topics to be addressed in the groups were introduced.

Day 2

The second day was devoted to the regulatory monitoring (RM) process. It was co-moderated by the Director of COSFAM and B.de.Benoist (OHP). However,, because of the presence of new participants (ONGs), Dr Touré (CLM) made a brief review of the nutrition situation in Senegal and the programme of fortification, and G. Aaron (GAIN) summarized the results of the FACT survey. Then Mrs Siné (ASN) talked about the norms applied in Senegal to fortify wheat flour and cereals. The COSFAM, multisectorial body created in 2006 under the Prime Minister, was responsible to develop a strategic plan for the regulation of food fortification. This plan includes the norms regarding (i) the vehicle for fortification, (ii) the level of nutrient fortification, (iii) the methods to analyse the nutrient content of the fortified products, (iv) the labelling and packaging. A manual of procedures was written out by COSFAM to describe how to implement these norms.

B.de.Benoist presented the general principles of a regulatory monitoring system and suggested as a conclusion some recommendations to improve the RM system in Senegal, based on the discussions we had in plenary during the previous day. My presentation

was followed by a presentation by A. Zhenchuk (BioAnalyt) who described the details of the various steps required by good QC practice on samples of fortified products in order to make sure that the nutrient content of the fortified product is in conformity with the law.

Day 3

The last day was devoted to discuss the recommendations. The Director of DCI and B.de.Benoist moderated the session. Several topics were presented and the participants were invited to make suggestions for recommendations. Resulting from the discussions, the main recommendations were on:

- ✧ Reinforcement of the coverage of fortified products especially for the most needed populations
- ✧ Need to fortify all sorts of cereal flours and not only the flours for bakery because in rural areas the consumption of flours but wheat flour is high
- ✧ Better control of quality of imported oil by making sure that importers import oils in conformity with national law
- ✧ Need to inform consumers on the cardiovascular risk associated with the consumption of palm oil
- ✧ Provide incentives to the producers who meet conformity standards
- ✧ Conduct campaigns to reduce the consumption of non-fortified (artisanal) oil which represent 30% of the national consumption of oil
- ✧ Need to set up mechanisms to fortify oil produced by small producers
- ✧ Need to encourage the consumption of fortified foods in the poorest segments of the population and in rural areas and facilitate their access to fortified foods
- ✧ Need to envisage the possibility to target the fortification on WRA and young children
- ✧ Labelling: (i) to ensure that the labelling of fortified products is in conformity with the law, and in particular the logo ; (ii) to improve the quality of information for the consumer on fortified products
- ✧ Need to train experts in RM, laboratory technicians and inspectors to improve RM system

V. OHP Observations

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- Coverage
 - ✧ The population coverage in the non poor group for wheat flour (80%) as well as for vegetable oil (77%) is high showing that: (i) for this group, the fortification programme is successful and (ii) the selection of these vehicles to be fortified made by CLM/COSFAM was a good choice for the strategy of mass fortification adopted by the Government in 2009.
 - ✧ The population coverage in the poor group for wheat flour (43%) as well as for vegetable oil (65%) is lower. The situation is not similar for wheat flour and edible oil.
 - ▲ For wheat flour, the issue is to understand why the consumption is low. It may be due to the fact that the price of the fortified products is too high, their availability limited or the dietary habits do not favour the consumption of wheat flour. GAIN should encourage CLM and COSFAM to address this issue before questioning the choice of wheat flour as a vehicle for fortification (as raised by some participants).

- ▲ For edible oil, the consumption is good given the fact that 30% of oil consumed comes from small producers or artisanal oil that is not fortifiable. Part of the non industrialized oil has side effect on health and the population is asked not to consume it. There are several possibilities for GAIN to explore with CLM/COSFAM:
 - ◇ Consider ways to encourage the population to consume fortified oil provided that this oil is available on the market at reasonable price
 - ◇ Provide positive incentives to producers so that oil prices are accessible to rural areas where is the highest concentration of poor people
 - ◇ Allow small producers to fortify their oil, for instance by developing collaborative links with large producers such as OLEOSEN or SUNEOR
 - ◇ Measures should be taken so that all imported edible oil should be fortified according to the regulation or, at least, fortified locally. This is an important issue as 11% of edible oil is imported.

- Mass or target fortification
 - ◇ The FACT survey clearly shows that the poor groups are not reached by the fortified products as well as the non poor groups although their risk of becoming deficient in iron and vitamin A is higher
 - ▲ GAIN may remind CLM and COSFAM that the adoption of the strategy of mass fortification in 2009 was based on the results of the FRAT survey that showed that wheat flour and edible oil were the most adequate vehicles for fortification at national level. The objective was not to target the population but to reach the whole population.
 - ▲ It is important to make all necessary efforts to improve the fortification programme (coverage, quality of fortified products). If the mass fortification is effective, WRA and young children will be correctly covered.
 - ▲ A target fortification or a programme of micronutrient supplementation can be envisaged, in addition to the mass fortification programme, if a moderate/severe deficiency in iron and/or vitamin A is documented in specific groups of the population.

- Regulatory monitoring
 - ◇ The workshop clearly showed that the participants were concerned about nutrient analysis of fortified food (QC) rather than by quality assurance activities. From this viewpoint several issues may be considered by GAIN
 - ▲ QA activities
 - ◇ GAIN could, in collaboration with DCI Inspectors, assess the QA system in factories and review the manual of procedures accordingly. A miller or an oil factory could be selected as a reference to train the QA team of the other millers and oil factories and help them to set up an effective QA system.
 - ◇ Reporting has hardly been addressed during the workshop although it is an important component of the QA activities and a good indirect indicator of the effectiveness of the fortification programme. The three reports that the DCI Inspectors have produced since 2011 do not refer to the internal reports of the millers and oil factory they visited, and do not seem to follow any standardised procedures
 - ◇ GAIN could address this issue with DCI and encourage DCI to develop a manual of inspection procedures for the Inspectors.

- ▲ QC activities
 - ✧ In collaboration with DCI and CLM, GAIN could ensure that the report of M. Blanc is implemented: the harmonization of the methods to measure retinol content on HPLC is key for the success of the fortification programme. In addition, the importance of training and updating the knowledge of the laboratory technicians should not be underestimated: if the measurements of retinol by HPLC are limited to the blood and food samples coming from the surveys linked to the fortification programme, there could be a real risk that the measurements will be rather infrequent so that technicians' knowledge will have to regularly refreshed.
- FACT survey
 - ✧ Coverage based on 10% of RNI: what should be known is whether the coverage of the part of the population that has access to a product correctly fortified, is in conformity with the regulations. The FACT survey should be designed with this objective in mind.
 - ✧ Frequency of consumption, weekly vs daily: the level of fortification is estimated in a way that assumes that the population consumes every day the fortified product. So, the daily consumption is meaningful in terms of potential health impact of the fortification programme, but not the weekly consumption
 - ✧ Categorization: the four categories, poor, non poor, rural and urban are important as such but the real question is to know whether specific groups at risks have access to fortified foods. These groups are often part of the poor but also part of the rural areas. So the rural category covers both poor and people who have difficult access to fortified foods. Unless there is a specific question regarding the poor, the survey could only sample urban vs rural.
 - ✧ It may be useful to collect information about the cost of the fortified foods, their availability in various local markets.