# Fortifying Food Markets

Unlocking the potential of food fortification partnerships to improve nutrition



### PARTNERSHIP PROFILE

## Strategic Alliance for Fortified Oil and Other Staple Foods (SAFO)



Fortifying commonly consumed staple foods and condiments with essential micronutrients, such as minerals and vitamins, offers untapped potential to help scale up access to nourishing diets for millions of people affected by malnutrition.

There is growing recognition among governments, donors and large corporations that the local millers and food processors who are responsible for fortifying staple foods in most countries play a crucial role in reducing malnutrition, and that more needs to be done to support and unlock their vital contribution.

A new report: "Fortifying Food Markets", developed by the Corporate Responsibility Initiative, Harvard Kennedy School and Endeva, identifies six opportunities to remove barriers that prevent millers from achieving the scale, quality and reliability that are needed for successful food fortification.

The report is informed by a series of profiles that identify learnings and good practices from existing food fortification partnerships engaged in building the capacity of millers. We thank the Bill and Melinda Gates Foundation for supporting this research.

### Introduction to the initiative

The Strategic Alliance for Fortified Oil and Other Staple Foods (SAFO) was a public-private partnership that was initiated in 2008 under the German develoPPP.de program. The main partners of the initiative included the chemical company BASF and the German Development Cooperation GIZ. The objective of SAFO has been to reduce vitamin A deficiency and reach 100 million people by adding vitamin A to staple foods, mainly edible oils. Initially scheduled for three years and with operations in eight countries, the implementation of the initiative was extended in 2012 for three more years with a main focus on three countries, namely Bolivia, Indonesia and Tanzania ("SAFO 2").1, 2

SAFO was designed as a catalytic, multistakeholder initiative to strengthen the ecosystem for food fortification. The initiative's approach was structured around four dimensions: policy advice and advocacy, economic and technical implementation, testing arrangements for monitoring systems (QA/QC), and legally mandatory fortification. SAFO was designed to maximize the comparative advantages that each partner brought to the alliance. On the public sector side, GIZ as a credible and trusted development partner, worked closely with government and civil society actors. BASF contributed its deep technical expertise around fortification processes and its experience in capacity development of local food processing companies.

This case study specifically looks at the process, results and insights of SAFO in Indonesia, highlighting the role of private sector partners.<sup>3</sup> SAFO's formal involvement in Indonesia began in 2009 and main additional partners included the Indonesian non-profit Nutrition Foundation for Food Fortification (KFI), the Indonesian Ministry of Health, the National Authority of Drug Control, national food labs, the German product-innovation company for diagnostics and food testing BioAnalyt, and large and small national oil processors.

SAFO was a well-timed initiative in Indonesia and was welcomed by both the government and the national private sector. In 2009, the Indonesian government announced a five-year strategy with the goal of reaching more than 200 million Indonesians with fortified cooking oil. Food fortification was not new in Indonesia. The government had successfully instituted mandatory fortification of salt with iodine and flour with iron and B vitamins over the past years. As the largest producer of palm oil

<sup>1</sup> For the sake of simplicity and because of the similar nature of SAFO and SAFO 2, we subsidize all activities under the term "SAFO".

<sup>2</sup> GIZ (2014)

<sup>3</sup> For a detailed description on the role of GIZ in SAFO, see GIZ (2014).

### Strategic Alliance for Fortified Oil and Other Staple Foods



globally, Indonesian oil processors were under national and international pressure to demonstrate health benefits of palm oil. With Corporate Social Responsibility (CSR) on the rise, some producers started to realize the social and reputational benefits of making their oil healthier and more attractive to customers.

# Box 1 Vitamin A deficiency in Indonesia and the role of fortified cooking oil

At the start of SAFO in 2009, approximately 2.3 million children under the age of 5 suffered from vitamin A deficiency (VAD) in Indonesia.<sup>4</sup> This is indicated by low retinol serum counts and first manifests as night blindness which can later lead to complete blindness, a weak immune system and ultimately to death.

Fortified cooking oil with vitamin A is a cost-effective way to significantly reduce the risk of VAD. Adding vitamin A to cooking oil increases production costs by 0.1 to 0.15%, with only 1kg of vitamin A needed for 16 tons of oil.<sup>5</sup> According to data from the Ministry of Health in Indonesia, this could prevent the death of about 15,000 – 20,000 children every year in Indonesia.<sup>6</sup>

#### Key facts

Partners: BASF, GIZ

Timeline: 2008 – 2012

**Countries:** Initial phase (2008-2010): Bangladesh, Bolivia, Brazil, Cambodia, Indonesia, Madagascar, Tanzania, and Uzbekistan; Second phase (2010 – 2012): Indonesia, Bolivia, and Tanzania (focus countries) and Bangladesh and Brazil (limited involvement)

Budget: € 2.8 million (2008-2012)<sup>7</sup>

#### Vehicle: Edible oil

- 4 Jakarta Globe, April 22, 2009
- 5 Jakarta Globe, April 22, 2009
- 6 Jakarta Globe, April 22, 2009
- 7 GIZ (2014)

# Building local capacity with the private sector

SAFO partners agreed on a clear division of roles and responsibilities. The public-sector partner GIZ focused on capacity support of local government. The KFI financed research on food fortification and provided advice on regulatory processes, local industry standards, and labelling schemes for vitamin A fortification. BASF provided technical assistance to oil mills and, with BioAnalyt, supported the National Authority of Drug Control (BPOM) to set-up an effective monitoring and evaluation system for vitamin A fortification. BASF also provided targeted scientific advice (e.g. on food fortification levels) and raw materials for academic research.

#### Supporting oil mills with technical know-how and business plan development

As part of their technical assistance to oil mills, BASF trained technical production laboratory staff and assisted companies to set up quality assurance regimes to ensure consistency and maintain high standards in the fortification process. In addition, BASF offered business plan development support to mills to create a compelling business case for vitamin A fortification. BASF provided information on vitamin A fortification for marketing and branding activities and advised companies how to position fortified products in the market. Fortified products should be explained to customers, help brands to differentiate in the market, and increase sales for local companies. The example of the cooking oil brand SunCo illustrates how this approach can work (see box below).

#### Building national lab capacity with training and provision of testing equipment

As part of their support to the National Authority of Drug Control, BASF provided in-person training to over 100 national QA/QC officers across the country districts and developed a training of trainers (ToT) manual to scale the training.<sup>8</sup> In addition, BASF provided over 100 semi-quantitative mobile test kits that are based

8 BASF Interview, 2022

## Strategic Alliance for Fortified Oil and Other Staple Foods

on photometric (i.e. light-based) analysis to monitor the presence or absence of vitamin A in fortified foods.<sup>9</sup> BioAnalyt provided quantitative mobile test kits, called iChecks, that can determine the amount/level of vitamin A in fortified foods. These two different tools for testing micronutrient levels are complementary and are ideally combined.<sup>10</sup>

# • Supporting research and standard setting with scientific advice

The setting of fortification levels and standards was informed by a large group of different stakeholders including UNICEF, GIZ, and KFI. BASF supported the research and standard setting with technical advice on how to perform tests and provided vitamins for the testings.

#### SunCo: A national champion of food fortification

One of the first companies to adopt vitamin A fortification practices in Indonesia was the Musim Mas Group, a major producer of cooking oil. With support from BASF, they relaunched their SunCo brand with active customer-centric marketing and dedicated food fortification ambassadors. SunCo printed the vitamin A label prominently on the product and launched TV commercials where oil was tested for Vitamin A before and after frying. The blue color from the test kit that indicates Vitamin A in the oil was used for the logo. The impact of this decision was all the greater when SunCo received the national 'Superbrand' award in 2010 in recognition of its acceptance by Indonesian consumers - in the process becoming a national champion of food fortification. Food fortification ambassadors at SunCo educated employees on the benefits of fortifying foods, including for national health, leading to a new identification of employees with their brand.

The pro-active marketing helped SunCo to relaunch their traditional product, resulting in an increase of brand recognition.<sup>11</sup> Other mayor brands such as Wilmar International and PT SMART followed their lead and started fortifying edible oil after seeing SunCo's success.<sup>12</sup>

"In my experience, your champions are often not the biggest market players that have little interest to change practices. It's those that have a lot to win." Claus Soendergaard, BASF

#### Results

In 2012, four major edible oil companies in Indonesia fortified their oil with vitamin A, ensuring significant coverage with fortified oil.<sup>13</sup> An industry survey conducted at the time, showed a rapid increase in the number of fortified brands (from 19 to 35 brands) and companies fortifying their oils (from 13 to 22 companies) during 2016-2017. 14 brands consistently fortified during 2015-2017 and 10 brands during 2016-2017.

As shown in the example of SunCo, participating oil companies in the initiative benefited from their engagement in food fortification through increased brand recognition and improved national reputation. The success of these pioneering companies led leading market players to adopt food fortification practices.

In addition, SAFO also helped to address misconceptions about vitamin A fortified oils through concerted research, awareness raising, education and communications efforts.

At the same time, SAFO expanded the capacity of the government to monitor and enforce standards. BASF trained over 100 national officers of the National Authority of Drug Control and supplied the authorities with over 100 test kits.<sup>14</sup> One of SAFO's most important contributions to food fortification efforts has been to strengthen countries' ability to monitor the presence or absence of vitamin A in fortified foods.

Despite the official end of SAFO in Indonesia in 2012, BASF has been providing technical trainings and capacity building to large and small oil mills that want to adapt food fortification practices or retrain new staff in mills that already fortify. In addition, BASF is supporting local authorities to continue monitoring activities through "train the trainer" sessions to ensure that high-quality QA/QC tools are in place. For BASF, the SAFO initiative was and is a successful showcase on how a public-private partnership can create shared value for society, the economy and partners.

For BASF, food fortification is connected to corporate strategy, contributing to sustainability targets while being an embedded and integrated part of our nutrition business."

Christine Haupt, Global Food Fortification Lead, BASF

13 GIZ (2014)

<sup>9</sup> The semi-quantitative mobile test kits can be reused many times and the reagent can be purchased locally. (BASF Interview, 2022)

<sup>10</sup> Food fortification monitoring depends on knowing a staple food's initial nutrient content and comparing it with the fortified product to confirm that the set levels of micronutrient content are met. BASF's quantitative mobile test kit provides a yes/no result after a few minutes for a cost per test of US\$ 0.02-0.05. This tool is useful for production checks and spot tests. BioAnalyt's quantitative mobile test kits allow for measurement of micronutrient levels after 2 to 60 minutes for a cost per test of US\$ 3-10 depending on the micronutrient and food matrix. This tool is best used to test a representative number of samples for actual levels of micronutrients. (GIZ 2014 and BASF Interview, 2022)

<sup>11</sup> BASF Interview, 2022

<sup>12</sup> BASF Interview, 2022

<sup>14</sup> BASF interview, 2022

#### Insights

From 2009 to 2015, SAFO in Indonesia achieved significant results. Even after the official end, activities from private sector partners and national stakeholders continue to promote and strengthen vitamin A fortification in the country. The most relevant learnings, insights, and success factors of SAFO in Indonesia are outlined below.

The systemic design of SAFO increased the

effectiveness of individual activities: SAFO was designed as a systemic initiative, with mutually reinforcing activities of key partners. While BASF's responsibility was to provide guidance and support on technical aspects of food fortification, GIZ financed independent research around food fortification and advocated at a policy level for conducive regulations. A key driver for industry partners to learn about and adopt fortification practices was that oil processors became aware that mandatory fortification regulations were soon to come.

 Involvement of neutral players and media supported knowledge and transparency around fortification:

During the time of SAFO, a public controversy arose in Indonesia over the benefits of fortified cooking oil with skepticism around mandatory fortification. In response, GIZ funded a set of academic studies that demonstrated the benefits of vitamin A fortification, and the press was invited to meetings to create awareness and increase transparency of the initiative. This approach and the role of neutral players fostered the trust in the initiative and positively affected the national perception of fortification.

• Continuous engagement and personal relationships created trust amongst partners: Continuous personal engagement – from the identification of local partners to implementation of technical trainings – was a critical success factor of SAFO. BASF involved global senior representatives in meetings to demonstrate buy-in and support. Though this close and continuous engagement, BASF built its reputation as a reliable and trustworthy partner for food fortification.

Building trust and getting buy-in from local stakeholders is something you do through many meetings, correspondence and engagements. It is important for partners to see the same faces again." Claus Soendergaard, Global Application Specialist Food

Fortification & Technical Marketing, BASF

• There are many ways to motivate oil millers to fortify: Miller motivation mechanisms can range from financial subsidies to CSR arguments. For SAFO, the most effective way to convince millers to fortify included advocacy for mandatory vitamin A fortification. At the same time, it presented the business opportunity for food fortification, highlighting first mover advantages and the opportunity to contribute to the national health of millions of Indonesian people. BASF supported oil mills in educating their own employees around the benefits of fortification and created a compelling case for customer awareness. This led to a new identification of employees with their brand. It also created a feeling of national pride to support their country in fighting malnutrition. Consequently, some mills started publicly advertising their fortification efforts and created customer-centric activities to increase awareness around fortified foods.

**G** Showing employees how their work is helping others, means a lot to most of them."

Claus Soendergaard, Global Application Specialist Food Fortification & Technical Marketing, BASF

#### Sources

GIZ (2014). Building alliances for better nutrition: The SAFO (Strategic Alliance for the Fortification of Oil and other Staple Foods) approach to fortifying edible oils with vitamin A in Bolivia, Indonesia and Tanzania.

#### Interviews

Interviews were done in 2021 Interviewees shared their personal experiences and did not speak on behalf of other third parties. Christine Haupt, BASF, Global Food Fortification Lead Claus Soendergaard, BASF, Global Application Specialist Food Fortification & Technical Marketing Xinyan Zhang, BASF, Project Manager Food Fortification

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