

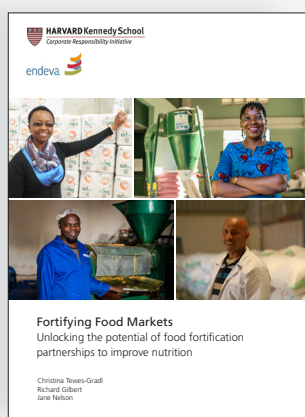
# Fortifying Food Markets

Unlocking the potential of food fortification partnerships to improve nutrition



## PARTNERSHIP PROFILE

### Iodine Global Network (IGN)



**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 Endeava, 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 Iodine Global Network (IGN) was first established in 1986 under the name International Council for Control of Iodine Deficiency Disorders (ICCIDD) with support from UNICEF, WHO and the Australian government.<sup>1</sup> The network since has served as the definitive scientific authority on iodine nutrition, while also supporting national iodine deficiency prevention programs. In collaboration with the partners which make up the network, IGN advocates for the importance of iodine nutrition and catalyzes coalitions and political action for a sustainable elimination of iodine deficiency disorders (IDD).<sup>2</sup> The network strives to ensure that populations across the globe can achieve and maintain iodine sufficiency by establishing enabling structures on national and regional levels. Given that the main intervention to ensure optimal iodine nutrition is universal salt iodization (USI), the intentional engagement and recognition of the role of the salt industry has been imperative to IGN's work.

The IGN works with a range of stakeholders towards harmonizing global and regional iodine programs (see table 1).<sup>3</sup>

Network partners are the salt industry to produce and iodize salt, governments to mandate salt iodization, monitor compliance, assess population coverage and iodine status of the population, civil society to create demand for iodized salt and development partners for support on the ground.<sup>4</sup> Key partners include:

- The Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) are normative agencies responsible for setting standards and guidelines
- UNICEF supports advocacy
- GAIN, Nutrition International (NI) and others provide technical assistance in program implementation
- Kiwanis was responsible for raising up to \$80 million to support USI programs in the 1990s and 2000s
- Academic institutions support the research, for example ETH leads global research on indicators and cut-off points, the George Institute leads research on salt reduction and alignment with salt fortification and EU Thyroid is a consortium of academic institutions
- Multiple salt companies and associations
- Bill and Melinda Gates Foundation, USAID and other donors funding the work.

1 Iodine Global Network (n.d.). Historical Milestones. Website. Available at [ign.org/about/](http://ign.org/about/) (accessed 10.03.2022).

2 Iodine Global Network (n.d.). A Global Partnership's Fight Against Iodine Deficiency. Website. Available at [ign.org/latest/blog/a-global-partnerships-fight-against-iodine-deficiency/](http://ign.org/latest/blog/a-global-partnerships-fight-against-iodine-deficiency/) (accessed 10.03.2022).

3 Iodine Global Network (n.d.). About the IGN. Website. Available at [ign.org/about/](http://ign.org/about/) (accessed 10.03.2022).

4 The Life You Can Save document (n.d.). Iodine Global Network. Website. Available at [www.thelifyoucan-save.org/best-charities/iodine-global-network/](http://www.thelifyoucan-save.org/best-charities/iodine-global-network/) (accessed 11.03.2022).

## Iodine Global Network

Table 1 Key IGN partners by type

Sector	Donors	Civil society organizations	Salt producers and industry associations	Development partners	Academic institutions
Partners	Bill & Melinda Gates Foundation (BMGF) USAID Kiwaniis International (global organization of volunteers)	Global Alliance for Improved Nutrition (GAIN) Nutrition International (NI)	Multiple salt companies and industry associations	UNICEF (advocacy) World Health Organization (WHO) Centers for Disease Control and Prevention (CDC)	EU Thyroid (EU-funded research project) ETH George Institute
Role	Funding	Technical assistance	Salt production and iodization	Advocacy, standards setting and guidelines	Research

IGN's activities cover the following areas:

- Advocacy for national awareness
- Technical assistance
- Research on topics such as country and regional context specific challenges for iodine fortification or consequences of dietary changes, e.g., increased consumption of processed foods<sup>5</sup>
- Provision of regional roadmaps that identify gaps, opportunities and challenges
- Convening of partners to develop regional and national USI program roadmaps, enabling better harmonization and alignment of efforts
- Tracking and monitoring global iodine status through the IGN Scorecard, which compiles data based on the median urinary iodine concentration (mUIC) from all 194 WHO Member States worldwide.<sup>6</sup>

### Key facts

**Partners:** Bill & Melinda Gates Foundation (BMGF), USAID, Kiwanis International (global organization of volunteers), Global Alliance for Improved Nutrition (GAIN), Nutrition International (NI), Multiple salt companies and industry associations, UNICEF (advocacy), World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), EU Thyroid (EU-funded research project), ETH, George Institute

**Timeline:** Founded in 1986<sup>7</sup>

**Countries:** Worldwide

**Budget:** USD1.6 million (2020), USD2.5 million (2019)

**Vehicle:** Salt

### Building local capacity with the private sector

The IGN is one of the few global nutrition organizations which has actively sought the participation of the private sector given its important role in the production and distribution of iodized salt, as well as advocating for the importance of adequate iodine nutrition. Important private sector actors are individual salt companies, associations of salt producers, and increasingly manufacturers of processed foods which include salt as a major ingredient. For example, IGN works with the salt industry to provide technical expertise to bodies like UNICEF and WHO to help shape global and national policies.<sup>8</sup>

IGN also collaborates with large salt producers such as Tata Chemicals in support of advocacy efforts. In India for example, the IGN and Tata rolled out a large #MissingI campaign on Global Iodine Deficiency Disorders Prevention Day 2018, creating consumer awareness for the importance of iodine. The letter "I" was removed from several news headlines. The campaign was highly successful. Sometimes, large salt producers support smaller producers by providing technical support, helping to form cooperatives and to consolidate fortification processes and high-quality production to ensure viable business models. IGN and salt producers have collaborated to bring small-scale producers together into formal and robust structures, enabling more effective programs in several countries including Azerbaijan, Sudan, Tanzania, Indonesia, Senegal and Ethiopia.

5 Iodine Global Network (2021). Leading the global fight to eliminate brain damage due to iodine deficiency. IGN Annual Report 2020. [ign.org/latest/annual-report/annual-report-2020/](https://ign.org/latest/annual-report/annual-report-2020/)

6 Iodine Global Network (2021). Leading the global fight to eliminate brain damage due to iodine deficiency. IGN Annual Report 2020. [ign.org/latest/annual-report/annual-report-2020/](https://ign.org/latest/annual-report/annual-report-2020/)

7 The Life You Can Save document (n.d.). Iodine Global Network. Website. Available at [www.thelifeyoucansave.org/best-charities/iodine-global-network/](http://www.thelifeyoucansave.org/best-charities/iodine-global-network/) (accessed 11.03.2022).

8 Interview Jan Werner Schultink 24.03.2022

# Iodine Global Network



## Kensalt: Iodized salt champion in Kenya



Based in Mombasa, Kenya, Kensalt is one of the largest salt producers in East Africa and was the first company to iodize salt in the country. Kensalt has been part of the country’s journey towards Universal Salt Iodization from early on. Mr. Wilfred Kimiri, now Managing Director of Kensalt, joined the company in 1999 when it was the only business active in refining salt in Kenya.

*“What was my drive? I understood the need and had the solution with our company’s commitment. More importantly, we at KENSALT were driven by the need to eliminate iodine deficiency in Kenya and make our citizens healthy!”*

**Mr. Wilfred Kimiri, Managing Director of Kensalt<sup>9</sup>**

The company faced several challenges when it first ventured into iodizing salt. Management was initially not convinced of the benefits of iodized salt for public health, there was a lack of consumer awareness and demand for iodized foods in the market, the production cost of iodized salt was high, the sector was heavily regulated by the Kenyan government, e.g., salt prices, margins and distribution, and the levels set for iodization, e.g., 150 ppm iodine were too high.

To tackle these challenges, Mr. Wilfred Kimiri, in collaboration with the Kenyan Ministry of Health and UNICEF-Kenya, conducted advocacy meetings with Kensalt’s management and organized a series of consumer awareness activities. Awareness campaigns were targeted at districts that had a high prevalence of iodine

deficiency. For example, pupils in primary schools were taught about the benefits of iodized salt and samples of high-quality products were handed out. Additionally, the partners worked to improve the enabling environment for iodized salt. For example, price controls were removed, and distribution of iodized salt was made more flexible.

These efforts, as well as the introduction of legislation and standards for salt iodization, have enabled Kensalt to be profitable and sustain operations. Other companies have followed their example, increasing the coverage of iodized salt Kenya-wide. Today, Kenya is recognized as a country with adequate iodine nutrition.

**Sources:**

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Iodine Global Network (n.d.). Kenya. Website. Available at [www.ign.org/p142001952.html](https://www.ign.org/p142001952.html) (accessed 21.06.2022).

<sup>9</sup> Taken from IGN (2020). Establishing salt iodization in Kenya: personal reminiscences of Mr. Wilfred Kimiri. IDD Newsletter. [ign.org/latest/stories/establishing-salt-iodization-in-kenya-personal-reminiscences-of-mr-wilfred-kimiri/](https://ign.org/latest/stories/establishing-salt-iodization-in-kenya-personal-reminiscences-of-mr-wilfred-kimiri/)



## Iodine Global Network



## Results

Thanks to the IGN and other efforts, there has been tremendous progress over the past 25 years to control iodine deficiency disorders (IDDs) through universal salt iodization. In 2019, only 19 countries in the world were classified as iodine deficient compared to 113 in 1993.<sup>10</sup> Salt iodization is mandatory in 126 countries worldwide today.<sup>11</sup>

The global prevalence of clinical IDDs fell from 13.1 percent to 3.2 percent, and 720 million cases of clinical IDDs have been prevented by USI (a reduction of 75.9 percent). USI has significantly reduced the number of newborns affected by IDDs, with 20.5 million cases prevented annually. The resulting improvement in cognitive development and future earnings suggest a potential global economic benefit of nearly \$33 billion.<sup>12</sup> Approximately 86 percent of households globally consume iodized salt today.<sup>13</sup> Though USI programs, the elimination of iodine deficiency is close to completion.<sup>14</sup>

The next challenge will be to make programs sustainable by integrating them into wider national policies and larger programs, building capacity for regulatory compliance and addressing challenges including changes to salt consumption patterns.<sup>15</sup>

Iodization of salt is relatively simple and cheap, and so is quality testing of samples for food processors and the public sector. Additionally, salt producers are motivated by the benefits provided by iodized salt on human health and the impact this can have on their customers and communities.<sup>16</sup>

IGN provides technical support for the collection of data on iodine status and USI program implementation. Firstly, the IGN publishes annual Scorecards and maps based on UIC data to show progress in national level iodine intake.<sup>17</sup> Secondly, IGN, in collaboration with the Food Fortification Initiative (FFI), GAIN, and the Micronutrient Forum, launched the Global Fortification Data Exchange (GFDx) in 2017 in an effort to standardize data collected across large scale food fortification programs worldwide, including rice, oil, wheat, maize and salt.<sup>18</sup> The GFDx provides up-to-date data on the status of national fortification programs, as well as analysis and visualization. GFDx serves as a digital tool to track global progress on food fortification and the data collected can be used by decision makers to improve future interventions.<sup>19</sup>

“Salt iodization is different to other vehicles in that incremental costs are comparatively low. While the supply chain is relatively easy, there has to be a compelling proposition for producers and customers, which iodization provides.”

**Rishi Kansagra, Director, IGN Board**

10 Jonathan Gorstein, Jack Bagriansky, Elizabeth N. Pearce, Roland Kupka and Michael B. Zimmermann (2020) Estimating the Health and Economic Benefits of Universal Salt Iodization Programs to Correct Iodine Deficiency Disorders. *Thyroid*. Dec 2020.1802-1809.

11 GFDx (n.d.). Mandatory Fortification. Website. Available at [fortificationdata.org/interactive-map-fortification-legislation/](https://fortificationdata.org/interactive-map-fortification-legislation/) (Accessed 26.05.2022).

12 Gorstein et al.

13 Iodine Global Network (n.d.). 9. What is being done internationally about iodine deficiency?. Website. Available at [ign.org/latest/stories/what-is-being-done-internationally-about-iodine-deficiency/](https://ign.org/latest/stories/what-is-being-done-internationally-about-iodine-deficiency/) (accessed 21.06.2022).

14 The Life You Can Save document (n.d.). Iodine Global Network. Website. Available at [www.thelifeyoucansave.org/best-charities/iodine-global-network/](https://www.thelifeyoucansave.org/best-charities/iodine-global-network/) (accessed 11.03.2022).

15 [ign.org/latest/annual-report/annual-report-2020/](https://ign.org/latest/annual-report/annual-report-2020/)

16 Interview with Jan Werner Schultink, 24.03.2022.

17 [ign.org/latest/annual-report/annual-report-2020/](https://ign.org/latest/annual-report/annual-report-2020/)

18 [ign.org/latest/annual-report/annual-report-2018/](https://ign.org/latest/annual-report/annual-report-2018/)

19 [fortificationdata.org/](https://fortificationdata.org/)

## Iodine Global Network



## Insights

Since its beginnings in 1986, the IGN has come a long way in eliminating iodine deficiency worldwide. Several lessons can be drawn from this experience:

**Large salt producers as champions:** IGN places strong emphasis on coordination and communication and brings together critical stakeholders. The network works with large scale salt producers as champions to bring smaller scale producers to sit at the table, build awareness, and develop common approaches to harmonize efforts and achieve viable business models.<sup>20</sup> Large food processors therefore play an important role in motivating other players to come and to stay on board.<sup>21</sup>

“Countries like India and South Africa have large national companies that have the capability to move the program of fortification and iodization ahead. In countries with small- and medium scale processors, there is often a lack of advanced know-how on processes. Therefore, larger companies can play a role and support local capacities and industries.”

Jan Werner Schultink, Executive Director, IGN

**Understand and respond to dietary changes:** After focusing on the supply of iodized salt to households, the IGN broadened its scope to better understand the use of iodized salt by the food industry and in the manufacture of processed foods. Consequently, it expanded its partnership with salt producers to include food processors. In doing so, the IGN responded to a change in global dietary patterns, recognizing the fact that processed foods account for an increasing proportion of dietary salt intake, compared to household salt.<sup>22</sup> While the use of iodized salt in processed foods such as low-cost instant noodles or baking goods is not mandatory in many countries, it provides great

opportunities to reach more consumers.<sup>23</sup> Related to this is the need for expanded monitoring to better understand the different sources of salt in the diet, whether these are iodized and how these correlate with the iodine and sodium status of populations. Equipped with such evidence, it will be possible for countries to fine tune and adjust USI programs in order to achieve the dual public health goals of optimal iodine nutrition and salt reduction.

“Including producers of processed food in the network allowed IGN to significantly expand coverage. This strategy update brought in a whole new set of stakeholders who support the target of universal coverage.”

Jonathan Gorstein, previous Executive Director at IGN and Senior Program Officer in the Nutrition Program at the Bill and Melinda Gates Foundation

**Digitization of LSFF results:** While progress on standards and quality assurance and quality control (QA/QC) mechanisms has been made, understanding the status quo of salt iodization and related health outcomes in real time is still a challenge. Often, QA/QC efforts are executed separately by food producers and governments and there is no way to effectively consolidate these data points. A lot of data is captured in spreadsheets or even on paper.<sup>24</sup> There is a need for governments to put in place central data collection systems and to drive digitization to enable effective monitoring of results.<sup>25</sup>

“Looking at the future, centralized networks and data bases are needed for quality assurance and control.”

Renuka Jayatissa, Regional Coordinator, South Asia

The success of the global salt iodization campaign, and the role of private sector partners, can serve as an inspiration for other food fortification programs.

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22 Iodine Global Network (n.d.). Program Guidance on the Use of Iodized Salt in Industrially Processed Foods. [ign.org/latest/stories/program-guidance-on-the-use-of-iodized-salt-in-industrially-processed-foods/](http://ign.org/latest/stories/program-guidance-on-the-use-of-iodized-salt-in-industrially-processed-foods/)

23 [ign.org/latest/annual-report/annual-report-2020/](http://ign.org/latest/annual-report/annual-report-2020/)

24 Interview with Jan Werner Schultink, 24.03.2022.

25 Interview with Jan Werner Schultink, 24.03.2022.

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## Interviews

Jonathan Gorstein, BMGF, Senior Program Officer (previous Executive Director of IGN)

Rishi Kansagra, IGN Director

Jan Werner Schultink, IGN, Executive Director

Renuka Jayatissa, IGN, Regional Coordinator

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