

DO INDIA'S FOOD SAFETY REGULATOR (FSSAI), AND INDIAN CITIZENS NEED SAVING FROM (FOREIGN & INDIAN) PRIVATE PLAYERS BEHIND FOOD FORTIFICATION INITIATIVES?

**A REPORT ON THE OBJECTIONABLE CONFLICT OF INTEREST IN
INDIA'S FOOD FORTIFICATION POLICIES & PROGRAMMES IN THE
FORM OF "FOOD FORTIFICATION RESOURCE CENTRE"**



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Executive Summary

This paper points to a potential conflict of interest in decision making around food fortification, which is currently receiving unprecedented policy support in India as the silver bullet solution to malnutrition and anaemia. An industry funded, founded, and led body called the Food Fortification Resource Centre (FFRC) has been given a seat within Food Safety and Standards Authority of India (FSSAI), which is India's statutory food safety regulator. FFRC members are promoters of fortification and are linked to nutraceutical and food corporations, who stand to gain from a push towards food fortification in India. Given its location inside the FSSAI, FFRC holds influence on state program implementation, funding, and evaluation.

Fortified foods are now being included in state safety net food programs like the PDS, ICDS, PMGKAY and MDMS/POSHAN, making these inescapable or near-mandatory for the majority of the country's population who rely on such food programs. In fact, these food programs are the legal entitlements for a majority of Indians. No independent in-country risk analysis has been conducted, while evaluation studies are still not available in 2022 for 3-year pilots on fortified rice in PDS that had been initiated in 2019 by the government in partnership with certain NGOs, including those linked to the nutraceutical industry. Such NGOs have been doing their own evaluation studies of their own fortification interventions in different states. These evaluations where they exist, are highly biased, giving glowing reviews to their own programs.

Advocates of right to food have been highlighting several layers of risks emanating from large scale, near-mandatory food fortification programs. These range from livelihood risks to small scale producers and processors, public health risks like over-reliance on a few food groups of cereals for vitamins and minerals, and irreversible market shifts that will make people dependent on ultra-processed foods manufactured by corporations, as compared to natural and local diverse foods produced by communities themselves.

One of the health risks, as per FSSAI's own regulations, is that iron-fortified foods cannot be given to patients who are contraindicated to eat iron.¹ Iron can be toxic to those suffering from infections like Malaria and Tuberculosis, or haemoglobinopathies like Thalassemia and Sickle Cell Anemia. But on ground, fact finding visits by ASHA and others in two states revealed that such patients were not being screened or supplied with non-fortified rice, as the central authorities had not come up with any clear protocols to protect such patients. Despite such glaring lacunae in policy, the program is being rapidly scaled up across the country.

ASHA was surprised to find that an RTI response by the Government of India pointed to the FFRC as the main authority looking at food fortification in India. Upon further investigation, it turned out that the FFRC is an industry body whose members act as lobby groups to open up policy space for fortification in India. Although the FFRC claims to be merely a resource centre, its importance and role in policy making is evident. This paper goes into detail about each of the corporate actors and NGOs inside the FFRC as well as their financial interest in fortification, based on public information that could be gathered about the entities. The members of FFRC have publicly praised themselves for the fact that India might make fortification mandatory thanks to their lobbying efforts. The formula being applied in India, of industry-linked NGOs doing lobbying, funding, and implementation to pry open policy space for fortified foods is not new. The same formula has been applied elsewhere too, as this paper reveals.

¹ https://www.fssai.gov.in/upload/uploadfiles/files/Compendium_Food_Fortification_Regulations_30_09_2021.pdf

Examples of the members of the FFRC include the Tata Trusts, which is the founding partner of the FFRC and is linked to the Tata Group, Wella Nutrologicals, and Tata Global Beverages- all of which stand to benefit financially from fortification as they produce nutraceuticals that are used in fortification, and manufacture fortified food products. Another key partner, GAIN has previously been called a lobby group for nutraceutical and big food corporations like BASF, DSM, and Cargill. GAIN also runs its own premix facility through which it manufactures and supplies fortified foods to international markets. PATH, a vaccine, drugs, and devices manufacturer, owns a proprietary fortified rice technology called Ultra Rice®, which is being supplied in government mid-day meals in some states. Several other examples provided in the report reveal that these corporate actors stand to financially benefit from a push for fortification in India. It is interesting to note the oversized role of the Gates Foundation in the FFRC. The FFRC was launched in the presence of Bill Gates himself, and various corporate-linked NGOs inside the FFRC are being funded by the Gates foundation.

Of greatest concern to this report is why such actors have a seat inside India's regulatory body, the FSSAI. Moreover, such actors are co-implementing fortification programs, providing funding, advisory services, supplying proprietary technologies in state programs, and conducting the government's so-called 'independent' evaluation studies. We make the case that the presence of the FFRC inside the FSSAI deserves further scrutiny and intervention to avoid conflict of interest.

Given FSSAI's lack of clear framework on conflict of interest, we rely on a conflict of interest (COI) framework proposed by the World Health Organization (WHO),² which is the most recent and exhaustive framework that specifically covers nutrition and conflict of interest internationally. Scholars note that such frameworks are new and are emerging because of the shifting landscape of corporate lobbying, which has gone from being a reactive enterprise into a systemic and proactive one,³ as in the case of food fortification in India.

Using WHO's frameworks on Conflict of Interest (COI), the report reveals that there are multiple levels of COI that manifest in the FFRC. Actual conflict of interest implies that a vested interest has the potential to influence official or agency judgement/action through the monetary or material benefits it confers on the official or agency. In the case of the FFRC, some examples we see include how corporate philanthropies like the Tata Trusts, and Gates Foundation, are funders and founders of FFRC and its partners. Other corporate entities like General Mills and PATH are funding and implementing mid-day meals programs in some states. Similarly, the report highlights how there are also instances of what are known as 'perceived conflict of interest' and 'outcome-based conflict of interest' prevalent in the FFRC.

The report concludes by highlighting key concerns with the FFRC's location within the FSSAI. Aside from the important issue of potential conflict of interest, there is also a one-sided portrayal of fortification as a silver bullet solution without any other critical perspectives and evidence on fortification. And finally, the mandates of the FSSAI and the FFRC are divergent- FSSAI is supposed to be guided by the principles of food safety which include risk assessment in an independent and transparent manner, public consultations and protection of consumer choice/interest among others. The FFRC on the other hand has a sponsored promotional role. Given such concerns, this report highlights the structural problem in housing private interests within a regulatory body like the FSSAI and urges that their sphere of influence is checked in matters of public health and food safety in accordance with India's laws.

² https://apps.who.int/gb/ebwha/pdf_files/EB142/B142_23-en.pdf

³ https://www.ijhpm.com/article_3898_25baf8e8c348eee616066d7e41497feb.pdf

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1. INTRODUCTION

This paper focuses on the presence of an industry-founded and industry-funded body called the Food Fortification Resource Center (FFRC) within India's statutory food safety regulator called Food Safety and Standards Authority of India (FSSAI). This apparent conflict of interest with FFRC in the FSSAI has its own implications on matters of policy, safety standards, framing and implementation of statutory regulations, and evaluation of governmental programs.

For context, India has now begun to include synthetically-fortified foods in all its public food programs like the PDS (Public Distribution System), ICDS (Integrated Child Development Scheme), PMGKAY (Pradhan Mantri Garib Kalyan Anna Yojana, a covid-pandemic related food scheme) and MDMS (Mid Day Meal Scheme meant for school children all over India, renamed as POSHAN), making these inescapable or near-mandatory for the majority of the country's population who rely on India's food security programs.

Given the large scale of these programs and India's market, media reports point towards a significant profit potential for nutraceutical and food corporations.⁴ No in-country risk analysis or independent evaluations seems to have been conducted.⁵ Yet, the program is already being rapidly scaled up across the country without the evaluation of the pilots being completed/made public.

Safety of Iron-Fortified Rice in Public Food Schemes

Public health experts and Right to Food activists have pointed towards serious concerns, irregularities in implementation, and health risks, especially for those large numbers of patients (for eg., those suffering from infections like Malaria and Tuberculosis, or haemoglobinopathies like Thalassemia and Sick Cell Anemia) for whom iron is strictly contra-indicated. What is ironic is that the food safety regulator's statutory regulations also recognize this risk and the FSSAI's has own notified a warning in its regulations.⁶ Fact-finding visits by Alliance for Sustainable & Holistic Agriculture (ASHA-Kisan Swaraj network) and others to Jharkhand and Chhattisgarh revealed that such patients were not being screened and they were indiscriminately being fed iron-fortified rice as the central authorities had not come up with any clear protocols to protect such patients. Government agencies were in effect violating statutory regulations.

Many RTIs filed by ASHA inquiring about what guidelines had been issued by the central government to screen such patients and prevent them from eating iron-fortified rice, were shunted from ministry/department to ministry/department, and no clear response was received to such inquiries. Suddenly, two months after our RTI was filed, we received a reply that the Ministry of Women and Child Development had issued circulars recently telling state governments to comply with the FSSAI's food fortification regulations of 2018, which ask for a warning to certain patients to not consume such food.⁷ Thus, they conveniently washed their hands off of the responsibility and passed the buck to state governments. This self-protective, but mainly ineffective measure was criticized in a civil society press release.⁸

⁴ <https://www.downtoearth.org.in/news/food/fortified-rice-scheme-to-create-rs-3-000-crore-market-for-just-five-big-firms-66761>

⁵ The government had been conducting pilots on fortified rice in PDS, but an RTI has revealed that the results of these pilots were not yet available.

⁶ https://www.fssai.gov.in/upload/uploadfiles/files/Compendium_Food_Fortification_Regulations_30_09_2021.pdf

⁷ <https://drive.google.com/file/d/1Qv300Hm9AGoP44-9Tb6-E7yofFUMxVVK/view>

⁸ https://drive.google.com/file/d/1qsoubyaZO5XyNsxqNHbbU9oCQI0A7h_f/view?usp=sharing

Food Fortification Resource Center

It was an entity called the Food Fortification Resource Center (FFRC) that responded to our communication with the Government and caught our attention. On 5th November 2020, ASHA sent a letter to FSSAI CEO expressing concerns with mandatory food fortification.⁹ The response on 19th November 2020 was however from FFRC.¹⁰ Ironically, even civil society groups sent a reply to FFRC, led by ASHA, in 2021 without realising that FFRC is an industry led lobby group seated within the FSSAI.¹¹ Later on, in May 2022, our RTI to the Ministry of Health and Family Welfare asking for results of the pilots on rice fortification, was passed on to the FFRC.¹² The RTI responses that were received said that that “matters on rice fortification are being looked at by the FFRC”¹³, revealing that the FFRC is not just a resource centre but holds greater sway.

Upon further investigation, we discovered that the FFRC is both industry-funded and industry-led and is composed of several NGOs that are linked to nutraceutical companies and are promoters of fortification technology. The FFRC was funded and founded by the Tata Trusts, the philanthropic arm of a company that is also selling nutraceuticals and fortified foods. Further, Bill Gates himself was present at the inauguration of the FFRC¹⁴, while several of Gates-funded and industry-linked NGOs are the partners of the FFRC. These NGOs and development organizations are also part of an advocacy organization called “POSHTIK Network,”¹⁵ whose membership remains opaque. Some of the members include GAIN¹⁶, Food Fortification Initiative,¹⁷ PATH,¹⁸ Nutrition International, Tata Trusts, BMGF, as well as UN organizations like World Food Organization and government agencies like National Institute of Nutrition.¹⁹

In this paper, we reveal more details about the FFRC, the corporate players indirectly and directly involved, and the role of the FFRC in policy formulation and implementation. Given its corporate ties, the FFRC’s location inside the FSSAI is highly objectionable, and could amount to a conflict of interest. We find the government’s abdication of its responsibility towards citizen interests questionable.

It is notable that the FSSAI’s own history with conflict of interest has been murky. In 2009, the Supreme Court had to intervene as FSSAI’s scientific panels were populated with industry representatives.²⁰ As a result of much criticism, FSSAI released draft guidelines in 2019 for consultation called “Working with the Private Sector”.²¹ The draft was riddled with problems as ASHA and others have pointed out.^{22,23,24} Rather than avoiding conflict of interest (“CoI”), the draft guidelines seemed to focus on ‘management’ of CoI, and seemed to justify the involvement of corporations, not

⁹ <http://www.kisanswaraj.in/2020/11/05/ashas-response-on-fssai-s-planned-mandatory-fortification-of-edible-oil-with-vitamin-a-and-vitamin-d-and-rice-with-vitamin-b12-iron-and-folic-acid/>

¹⁰ <https://docs.google.com/document/d/11PEvIQldGjLCeFLU4blou6qlpS2aMFmJIRUImZauMw/edit>

¹¹ <http://www.kisanswaraj.in/2021/07/31/response-to-ffrc-letter-dated-19th-november-2020-in-response-to-our-letter-dated-5th-november-2020-on-planned-mandatory-fortification-in-india-of-edible-oils-and-rice/>

¹² <https://drive.google.com/file/d/1wLrZ4LcPzM-0fHfckVmy-xDA68Z2utF3/view?usp=sharing>

¹³ *ibid*

¹⁴ <https://nuffoodsspectrum.in/2016/11/18/bill-gates-attends-fssai-meeting-launches-food-fortification-resource-centre.html>

¹⁵ <https://reliefweb.int/report/india/wfp-india-country-brief-march-2019>

¹⁶ <https://docs.wfp.org/api/documents/WFP-0000104500/download/>

¹⁷ <https://www.fortifyhealth.global/blog>

¹⁸ <https://www.path.org/case-studies/advancing-large-scale-food-fortification-to-improve-nutrition/>

¹⁹ https://ffrc.fssai.gov.in/assets/media_gallery/file/partner_meeting_dfs_delhi_12july19.pdf

²⁰ <https://www.outlookindia.com/website/story/opinion-conflict-of-interest-impairs-tie-ups-between-food-industry-and-its-regulator/339118>

²¹ https://www.fssai.gov.in/upload/uploadfiles/files/Notice_Draft_Guidelines_Private_Sector_04_10_2019.pdf

²² <http://www.kisanswaraj.in/2019/10/25/we-need-avoidance-of-conflict-of-interest-not-management-asha-response-to-fssai-draft-guidelines-for-working-with-private-sector/>

²³ <http://www.aaci-india.org/doc/Comments-of-the-AACI-on-FSSAI-draft-guidelines-on-Working-with-the-Private-Sector.pdf>

²⁴ <https://www.downtoearth.org.in/news/food/experts-raise-questions-on-fssai-draft-about-conflict-of-interest-67157>

just as consulting parties, but their inclusion in food policy processes.²⁵ Despite its own admission after the Supreme Court warning that industry representatives should not sit in scientific committees, the FSSAI continues to house industry-backed scientists in scientific panels.²⁶ After these draft guidelines on ‘working with private sector’ were issued, it is not clear whether the FSSAI has adopted a conflict of interest policy, and the process around this seems opaque.

In this paper, we rely on conflict of interest (CoI) definitions proposed by the World Health Organization in its approach to conflict of interest and nutrition.²⁷ The WHO has carried out several deliberations and provided tools and guidance to member states like India to safeguard against conflict of interest in policy development and implementation of nutrition policies. WHO, in its guidance related to CoI includes both direct policy influence using funding, and indirect policy influence. This paper will show that the FFRC’s presence in the FSSAI matches the various criteria proposed by the WHO to gauge conflict of interest. It is further argued that even more scrutiny is required, as many decision-making processes are opaque.

The rest of this paper is structured in the following manner: (i) An introductory section that provides some background on how the WHO and FSSAI understand conflict of interest, the concerns around mandatory fortification and the status of fortification programs in India. The paper will not delve deeply into fortification and concerns on public health or livelihoods, which is outside the scope of this paper as this paper is about the FFRC and conflict of interest. (ii) Section 2 will go deeper into the FFRC, its mandate, its NGO partners, and their industry linkages. We also show how the Gates Foundation is closely linked to this policy in India and has provided direct grant support as well as accelerator funding to fast-track fortification in India. (iii) In the final concluding section, we weigh the information presented here against the WHO definitions/framework of conflict of interest and conclude that the presence of the FFRC within the FSSAI fits into these definitions/frameworks and points to a potential conflict of interest. Based on this, a clear set of actionables is presented.

2. CONFLICT OF INTEREST

Conflict of Interest can be broadly defined as a situation where an entity’s integrity, independence and impartiality with regard to its designated duties get compromised due to the interference of other interests. The “other (self- or vested) interest” may or may not be financial, may be actual or perceived/potential, and can be institutional or individual. Conflicts of Interest matter because they can compromise on the performance and execution of assigned duties, and can be equated with misconduct.

There are international commitments that nation states have made, in the UN Convention Against Corruption for instance, of preventing conflict of interest through legal means if necessary (specialised legislation or general legislation and codes of conduct laid down).

A relevant and recent framework of CoI in nutrition policy comes from the WHO’s draft approach and tool for preventing and managing conflict of interest that emerged in 2017.²⁸ A WHO technical consultation in 2015 with legal experts, government officials, CSOs and academia also provides

²⁵ <http://www.kisanswaraj.in/2019/10/25/we-need-avoidance-of-conflict-of-interest-not-management-asha-response-to-fssais-draft-guidelines-for-working-with-private-sector/>

²⁶ <http://www.kisanswaraj.in/2019/10/25/we-need-avoidance-of-conflict-of-interest-not-management-asha-response-to-fssais-draft-guidelines-for-working-with-private-sector/>

²⁷ https://apps.who.int/gb/ebwha/pdf_files/EB142/B142_23-en.pdf

²⁸ *ibid*

important guidance on assessing conflict of interest.²⁹ Scholars note that the very fact that such a tool has emerged points to the rapidly-shifting landscape of corporate lobbying which has gone from being a reactive enterprise into a systemic and proactive one.³⁰ The WHO's draft tool on conflicts of interest is a necessary, but modest response, given that the tool is voluntary and optional in nature. Member states are encouraged to come up with their own legislations around CoI.

Definitions of CoI

Drawing from the WHO's assessment tools and technical consultations specifically on nutrition policies and CoI, we can conclude that

1. CoI can be actual or perceived
 - a. *“An **actual conflict of interest** arises when a vested interest has the potential to unduly influence official or agency judgement/action through the monetary or material benefits it confers on the official or agency.”*
 - b. *“A **perceived conflict of interest** arises when a vested interest has the potential to unduly influence official or agency judgement/action through the non-monetary or non-material influences it exerts on the official or agency.”*
 - c. *“An **outcome-based conflict of interest** arises when a vested interest, involved in policy-making or policy-implementation process, seeks outcomes that are inconsistent with the demonstrable public interest.*
2. COI can be monetary or non-monetary
3. COI can be institutional or individual in nature.

“Institutional conflict of interest describes a situation where a Member State's primary interest, as reflected in its institutional mandate to protect and promote public health, may be unduly influenced by the conflicting interest of a non-State actor in a way that affects, or may reasonably be perceived to affect, the independence and objectivity of the Member State's work in the area of public health nutrition.”

“Individual conflicts of interest can involve public officials or individuals that do not belong to the public administration. Individuals engaged in the development of nutrition policies or implementation of nutrition programmes may experience a conflict of interest if a private interest (financial, personal or other nongovernmental interest or commitment) interferes – or appears to interfere – with their ability to act impartially, discharge their functions or regulate their conduct in the sole interests of public health nutrition.”

Conflicts of interest can arise when interactions involve external actors of two distinct types: non-State actors or individuals, both of which may provide advice, expertise, or be otherwise associated with the development of policies or implementation of nutrition programmes. Non-State actors can be nongovernmental organizations, private sector entities, philanthropic foundations and academic institutions. Individuals may either represent the interests of any of the above-mentioned entities or act in their personal capacity. Further, “Engagement refers to any formalized interaction with the individual or institution, ranging from a donation to a partnership.” Forms of engagement can be

²⁹

https://apps.who.int/iris/bitstream/handle/10665/206554/9789241510530_eng.pdf;jsessionid=BDA05F61D56A9CA81947233AFF0B8B49?equence=1

³⁰ https://www.ijhpm.com/article_3898_25baf8e8c348eee616066d7e41497feb.pdf

charitable such as donations, transactional such as sponsorship and transformational such as multi-stakeholder platforms.

The WHO's 6-step process on assessment of COI, which is being piloted in different regions include:

| | |
|-----------|---|
| STEP 1 | : Rationale for engagement (with private actor) |
| Objective | : clarify the public health nutrition goal |
| STEP 2 | : Profiling and performing due diligence and risk assessment |
| Objective | : have a clear understanding of the risk's profile of the external actor and the engagement |
| STEP 3 | : Balancing risks and benefits |
| Objective | : analyse the risks and benefits of the proposed engagement based on impacts |
| STEP 4 | : Risk management |
| Objective | : manage the risks based on mitigation measures and develop a formal engagement agreement |
| STEP 5 | : Monitoring and evaluation and accountability |
| Objective | : ensure that the engagement has achieved the public health nutrition goals and decide to continue or disengage |
| STEP 6 | : Transparency and communication |
| Objective | : communicate the engagement activities and outcomes to relevant audiences |

We contend that the FSSAI may not have fulfilled any of the above six steps – especially a risk assessment, transparency or accountability in its engagement with private interests.

On the other hand, FSSAI looks at CoI as something to be “managed”. In its draft guidelines on working with the private sector, FSSAI sought to justify why industry representatives are to be included in India’s position-development and not just consulted. In India, FSSAI is not only infiltrated by industry, but is also lured into industry’s lobbying bodies. It appears that in FSSAI’s understanding, a private co-partner is alright as long as it does not promote a particular brand or prevails on a particular agenda item in any meeting, whereas the concern should be about the regulatory regime itself being collectively shaped by vested interests – the standards, the assessment and testing regimes, the implementation and monitoring. Given that FSSAI attempts a culture of self-compliance, it is all the more important to remain independent, and devoid of conflict of interest. What FSSAI lacks is a clear demarcation between constant consultations and reviews, and collaborations laden with conflict of interest. Meanwhile, India has ratified the UN Convention Against Corruption 2003 wherein Article 7, para 4 is about prevention of conflict of interest.³¹

3. FSSAI AND ITS STATUTORY MANDATE

The Food Safety and Standards Authority of India is India’s food safety regulator, created as a statutory body under the Food Safety and Standards Act 2006. The duty of the Food Authority is to regulate and monitor the manufacture, processing, distribution, sale and import of food so as to ensure safe and wholesome food. The Authority, through statutory regulations specifies the standards and guidelines in relation to articles of food, as well as an appropriate system for enforcing the standards, the limits for use of additives or for contaminants, pharmacologically active substances and chemical residues,

³¹ United Nations Convention against Corruption (unodc.org)

procedures and enforcement of quality control for food imports, sampling and analysis, labelling standards, manner of risk analysis/assessment/ management etc.

FSSAI is responsible for laying down regulatory standards for food fortification and labelling standards for the same, amongst other things. While Section 16, Section 22(1)(a) and Section 92 empower the FSSAI to take up regulation of fortified foods, amongst other foods, Section 18 lays down the general principles to be followed in administering the Act as “General Principles of Food Safety”.

4. FOOD FORTIFICATION - CURRENT POLICY

Food fortification is the deliberate increase of the content of one or more micro-nutrients (vitamins and minerals) in a food, and is emerging as a key policy strategy to address malnutrition in India. Under this program, India’s five key staples (rice, wheat, oil, salt and milk) are to be fortified using synthetic vitamins and minerals.

In 2018, FSSAI notified the Food Safety and Standards (Fortification of Foods) Regulations 2018, through which it laid down standards for fortification and also specified labelling related regulations³². According to these regulations, edible oil and milk are to be fortified with Vitamin A and/or Vitamin D³³, while salt is to be fortified with iron and iodine turning it into what is known as Double Fortified Salt (DFS)³⁴. Wheat (both maida and atta) as well as Rice are to be fortified with iron, folic acid, vitamin B12 along with some optional vitamins such as Zinc, Vit A, Thiamine, Riboflavin, Niacine, Pyridoxine. The standards also include regulations for fortification of processed foods like cereals, bakery products, etc.

At the moment, fortification of foods is not mandatory, except in the case of iodized salt, while it is stated that the Government is going to make fortification mandatory for packaged edible oil and milk. The Fortification of Foods Regulations, 2018 do pave the way for mandatory fortification, and state that the FSSAI could announce mandatory fortification of any staple, based on direction from the government³⁵. Guidelines for the mandatory fortification of edible oil and milk have already been issued by the FSSAI³⁶. The government has also declared its desire to make iron fortification of rice in all key food schemes³⁷, making it near-mandatory and inescapable for the poor, who rely largely on the government’s safety net programs (PDS incl. PMGKAY introduced during Covid-19 Pandemic, ICDS and MDMS) for their nourishment, as fortified foods are already being supplied in these schemes.

In 2019-2020, the government started a Pilot Scheme, meant for 15 districts in 15 states of the country³⁸. Although results of these pilots are still not out,³⁹ the number of districts covered under rice fortification is expanding rapidly and 291 districts will be covered by March 2023.⁴⁰

³² https://www.fssai.gov.in/upload/uploadfiles/files/Compendium_Food_Fortification_Regulations_30_09_2021.pdf

³³ https://fssai.gov.in/upload/media/FSSAI_News_Oil_FNB_04_01_2020.pdf

³⁴ https://fssai.gov.in/upload/press_release/2018/08/5b72546af087fPress_Release_Food_Fortification_10_08_2018.pdf

³⁵ See Chapter 2, (3), (2) of the 2018 regulations

³⁶ https://fssai.gov.in/upload/media/FSSAI_News_Oil_FNB_04_01_2020.pdf

³⁷ <https://theprint.in/india/whats-fortified-rice-why-is-modi-govt-pushing-it-why-some-experts-arent-excited/1111091/>

³⁸ https://dfpd.gov.in/Centrally_Sponsored_Pilot_Scheme.htm

³⁹ As per citizen’s RTI

⁴⁰ <https://pib.gov.in/PressReleaseframePage.aspx?PRID=1833574>

4.1. How is mandatory fortification risky to public health?

In this section we briefly touch upon some of the concerns around fortification. Given that this paper is about Conflict of Interest and the FFRC, the following overview will not enter into a detailed discussion about risks or the (lack of) efficacy of fortification. A civil society blog does collate information from various sources for readers who would like to delve deeper.⁴¹

On the face of it, fortification might seem like a positive step -- however, experts have raised serious concerns⁴² on grounds of public health, livelihoods, community-led alternatives being side-lined by risky corporate solutions, and conflict of interest among others. The lack of scientific consensus that fortification works effectively, or doesn't lead to side effects, is apparent. Therefore, this puts a big question mark on the very logic of (mandatory) fortification.

For instance, in the case of iron-fortified staples, reducing anaemia requires improved Haemoglobin levels (the functional form of iron), and not just increasing ferritin (the stored form of iron). The former is attained not just by iron but a host of supportive enzymes and especially protein are required to work in synergy to create Haemoglobin. Unless people have access to other nutrients and enough calories, they will not benefit just by consuming more synthetic iron.

What is especially concerning is the near-mandatory, large scale, iron fortified rice that is being promoted in public food schemes. Resolving anaemia seems to have become the peg upon which this mega program is being unfolded. We focus especially on iron because of the scale of the program and insertion into safety net programs of the country, as well as the greater risks associated with iron as compared to other vitamins and minerals. Iron is a highly oxidative element and is toxic in high doses. It is categorically contraindicated for people with haemoglobinopathies like Thalassaemia and Sickle Cell Anaemia as these populations are at risk for iron overload. It is also contra-indicated for people with acute infections like Malaria or Tuberculosis, all prevalent in India and endemic to some regions.

The FSSAI recognizes this grave risk but does not provide any serious guidelines to protect such patients. While the Food Safety Regulator may hide behind the pretext of saying that they are only into regulation, the Government of India is also not doing anything about the statutory regulations that it is supposed to follow.

The FSSAI's Fortification of Foods Regulations, 2018 direct manufacturers of iron-fortified products to include the warning that people with Thalassaemia can take such foods only under medical supervision, while people with SCD are advised not to consume iron fortified products.⁴³

Further, increased stores of iron (called ferritin) are linked to increasing Non- Communicable Diseases like diabetes, dyslipidaemia, hypertension; since there are no provisions and mechanisms for monitoring of iron levels in the population, there is no way to stop fortification when iron stores cross safe thresholds.⁴⁴

In Sickle Cell Disease, Sickle shaped cells within red blood cells breakdown easily, releasing Iron in circulation; regular destruction of Red Blood Corpuscles (RBCs) results in the build-up of higher body stores of iron and may lead to liver damage. Fortified Rice adds to the already high iron stores which

⁴¹ <https://community-holistic-nutrition.blogspot.com>

⁴² See resources on concerns here: <https://community-holistic-nutrition.blogspot.com/p/mandatory-food-fortification-key.html>

⁴³ https://www.fssai.gov.in/upload/uploadfiles/files/Compendium_Food_Fortification_Regulations_30_09_2021.pdf

⁴⁴ <https://www.researchsquare.com/article/rs-1136688/v1>

cannot be used for Haemoglobin formation, thus potentially leading to iron overload and organ (liver, endocrine system, heart) damage. In Thalassemia, frequent blood transfusion adds to Iron overload that could lead to cardiac damage, liver fibrosis, reproductive problems, and growth retardation.⁴⁵

The risks to patients with Malaria and Tuberculosis are also high. In Malaria endemic zones, increased amounts of iron in the gastro-intestinal tract affects the structural integrity and gut microflora and immune systems.⁴⁶ Iron supplements are also known to increase risk of malaria in resource poor locations⁴⁷ as well as bacterial and viral infections. Red Blood Cells (RBCs) use Ferroportin to remove excess iron, which malaria parasites consume as a food source; the absence of Ferroportin causes iron to accumulate to toxic levels inside RBCs. This stresses the cells and shortens their life span.⁴⁸ Iron overload also has the potential of TB flare-up when given before the anti-TB drugs regime.

How many citizens are at risk?

The numbers are not insignificant. India has one of the highest disease burdens of thalassemia globally with almost 3.9 crore carriers,⁴⁹ as well as the largest number of children with β -thalassemia in the world.⁵⁰ About 15000 babies are born with β -thalassemia each year.

India also has highest prevalence of Sickle Cell Disease in South Asia, with some 2 crore estimated carriers.⁵¹ India has been ranked the country with the second highest numbers of predicted SCD births.⁵² Large tracts of Central India are inhabited by Adivasi populations inflicted with severe manifestations of Sickle Cell Anemia.⁵³ RTI applications to various departments to get the numbers of patients in Central Indian states led to no responses.

India had about 2.4 million cases of TB in 2019, and there are 2 million malaria cases in India per year.

Given the near-mandatory nature of this large-scale program, the message by the government seems to be that poor Indians should receive the bulk of their nutrition through chemicals added to one or two cereals like rice or wheat. Similar policy and programmatic emphasis does not exist for balanced and diverse diets to get adequate calories and essential proteins, fats, or vitamins and minerals. Although the FSSAI has admitted that dietary diversity is the ‘best choice’ to address malnutrition, and that fortification is a ‘complementary strategy’ rather than replacement of balanced diets⁵⁴, it is clear that corporate-led fortification is on its way to becoming the main policy thrust, while holistic balanced natural diets, produced and processed by communities themselves, are not receiving the same attention.

4.2. Experience of fortification in two states

Two fact-finding visits were conducted in Jharkhand and Chhattisgarh by ASHA and Right to Food Campaign teams which included public health experts and practitioners in May and June 2022. Both

⁴⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872757/>

⁴⁶ <https://www.karger.com/Article/Fulltext/337674>

⁴⁷ <https://pubmed.ncbi.nlm.nih.gov/21975754/>

⁴⁸ <https://www.nih.gov/news-events/news-releases/nih-study-may-help-explain-why-iron-can-worsen-malaria-infection>

⁴⁹ <https://timesofindia.indiatimes.com/blogs/voices/impact-of-pandemic-and-way-forward-for-thalassemia-patients-in-india/>

⁵⁰ <https://www.tribuneindia.com/news/health/india-has-largest-number-of-kids-with-thalassemia-major-127968>

⁵¹ https://journals.lww.com/ijmr/Fulltext/2021/07000/Sickle_cell_disease__More_than_a_century_of.2.aspx

⁵² *ibid*

⁵³ <https://pubmed.ncbi.nlm.nih.gov/27053181/>

⁵⁴ https://fssai.gov.in/upload/media/FSSAI_news_Nutrition_Banega_18_09_2020.pdf

states have large Adivasi populations. The visits revealed serious concerns with regard to fortified rice distribution and consumption.⁵⁵

Despite the high prevalence of haemoglobinopathies, TB and Malaria in the two states, recipients of iron fortified rice were not being screened and were indiscriminately being fed with fortified rice in various food schemes. The central government had not created any clear protocols or mechanisms whereby these citizens can be identified, educated and supplied with non-fortified foods as per their entitlements, whereas state governments were expected to implement this policy without any wherewithal to do so. It is now the state governments that inadvertently become responsible for the side effects, even as they expressed helplessness.

Some people met during the fact-finding shared complaints of side effects like diarrhoea, nausea, abdominal discomfort, gastritis in Jharkhand after the consumption of iron-fortified rice. In Chhattisgarh, the state had been supplying higher quantities of rice compared to other states to certain underprivileged groups. Such groups were receiving higher quantities of iron fortified rice as well, which could lead to iron overload risks. Consumers observed organoleptic changes- which means the appearance, taste, flavour and smell of iron fortified rice kernels (FRK) was different and many people had been removing and throwing away FRKs, putting into question the effectiveness of such a program. There was no effort at obtaining consent from the citizens who were being subjected to this rice and many were not even aware that they were being fed iron-fortified rice. However, due to deep poverty and lack of options, the community members were being forced to consume such rice.

Add to this, the ineffectiveness of labelling to protect at-risk groups, putting into question statutory regulations related to labelling of fortified foods. Although some blurry and inadequate labels were seen on sacks of fortified rice in some cases, since the rice is given in loose or cooked form in food schemes, and the fact that several people are illiterate and won't be able to read or understand such labels, the meaninglessness of labelling regimes comes to the fore. This also deepens the question mark over fortification as an apt policy in India.

Case of two children suffering from Thalassemia, forced to consume iron rice

The team conducting the fact-finding visit in Jharkhand met two brothers with their parents in a hospital; 12 and 7 years old who were suffering from Thalassemia. They were from Boramchati village in Chakuliya Block of East Singhbhum. They mentioned that they undergo weekly blood transfusions and their treatment involves high costs for the family, even as the parents forego work/earnings when they run around hospitals. It turned out that this family had been consuming fortified rice for around 3-4 months now. When asked why they did not avoid consuming such rice, as is being advised by the Government of India itself, the mother said simply that they did not have an option but to eat the PDS rice given their economic condition. Clearly, the Government of India is being blind to the reality of thousands of such people when they are pursuing the rice fortification program.

⁵⁵ <https://community-holistic-nutrition.blogspot.com/p/fact-finding-visits-to-local.html>

5. A CLOSER LOOK AT FOOD FORTIFICATION RESOURCE CENTRE (FFRC) HOUSED IN THE FOOD SAFETY REGULATORY AUTHORITY

Given that fortification is receiving unjustified and inexplicable policy attention, promotion and investment, it is important to understand who is making decisions, and how the decisions are being made within the government. A series of RTI applications⁵⁶ to Ministry of Consumer Affairs, Food and Public Distribution, Health & Family Welfare, and Tribal Affairs, point to these Ministries and departments claiming that Food Safety and Standards Authority of India (FSSAI) is the main agency responsible, and taking decisions about rice fortification. But FSSAI, in its own RTI replies, denies being anything other than a regulator. Replies on behalf of FSSAI have been sent by the FFRC, however.

Meanwhile, a look into FSSAI's food fortification related work shows that it is not just a regulatory function that the Authority is performing, but a promotional one. A closer look shows how private lobby groups have a disproportionate influence here

5.1. FOOD FORTIFICATION RESOURCE CENTRE (FFRC)

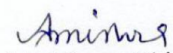
The key body promoting fortification and housed within the FSSAI is called the Food Fortification Resource Centre,⁵⁷ an entity whose purported aim is to promote fortification, which makes no provision to critically evaluate this reductionist technological approach to tackling under-nutrition.

As mentioned, ASHA first caught notice of the FFRC, when government authorities who were requested for information via RTIs, started to point to the FFRC as the entity in charge of fortification in India. Moreover, a letter by ASHA addressed to the FSSAI, was responded to by the FFRC!

10. The Food Fortification Resource Centre was created to address the concerns and provide support to the States/UTs and the industry. There are many experts that provide technical know-how to both however, for smooth operations and grievance redressal, FFRC works with multiple stakeholders and all the concerned ministries, NITI Aayog, industry, scientific experts, nutritionists, doctors, food technologists media, States/UTs, industry, consumer research groups, national and international NGOs like the POSHTIK network to align and map the supply and demand of fortified foods.

11. Under the Eat Right India initiative of FSSAI, promotion of local, seasonal and fresh produce is already being stressed on and a lot of awareness content has already been created for the same. You may like to visit the website <https://eatrightindia.gov.in/EatRightIndia/index.jsp> for more details. ERM is a PAN India focussed campaign which promotes food safety, healthy and sustainability.

Thanks,


Ashok Kumar Mishra 19/11/2020
(Assistant Director, FFRC)

Description of FFRCs mandate in letter response to ASHA

⁵⁶ <https://community-holistic-nutrition.blogspot.com/p/rtis-filed.html>

⁵⁷ The FFRC is funded by the Tata Trusts: <https://www.tatatrusts.org/our-work/nutrition/policy-and-advocacy/supporting-the-food-fortification-resource-centre>

It was only later that ASHA looked into the FFRC and realized that it is a non-regulatory entity responding on behalf of the regulator. Given below are more details about the FFRC, its constituents, and some of their financial interests in food fortification, which should lead to some hard questions directed at the FSSAI and what it stands for. According to the FSSAI⁵⁸, the Food Fortification Resource Centre (FFRC) is a resource center whose sole aim is to promote large-scale fortification of food across India. The FFRC was established in collaboration with, and funded by the TATA Trusts, which is a private philanthropic arm of the Tata group, and it is worth noting that the latter is a corporate conglomerate that is going to benefit from large scale food fortification in India.

5.2. The partners of FFRC⁵⁹



Image: Partners of the FFRC, Source: FSSAI website

5.3. Stated Objectives of FFRC⁶⁰

1. To educate people about the benefits of fortified foods.
2. Sensitize states about fortification of food and promote them in the Safety Net Programmes to curb the incidence of micronutrient deficiencies.
3. Provide technical support, especially to small scale food manufacturers to enable them to produce fortified foods.
4. To train and build capacity for large-scale fortification of foods.
5. To provide communication material, technical, scientific and financial support to promote large-scale fortification of food.

While FFRC stands to educate people and sensitise states about the benefits of fortified foods, it does not have any intention of similarly educating anyone about the risks of fortified foods. This is unscientific, apart from reflecting vested interests.

⁵⁸ <https://ffrc.fssai.gov.in/aboutus>

⁵⁹ <https://ffrc.fssai.gov.in/partners>

⁶⁰ <https://ffrc.fssai.gov.in/aboutus>

5.4. Corporate players in the FFRC and what is their interest in fortification

Table 1: Some FFRC partner NGOs and their associated corporate entities that have a financial interest in fortification

| Name of the FFRC partner NGO | Associated Corporate entities (micronutrient producers and ultra-processed food manufacturers) that could profit from gaining market access via fortification policies as described further in this note |
|---|---|
| Tata Trusts | Tata Group, Wella Nutrologicals ⁶¹ , Tata Global Beverages ⁶² |
| GAIN | <p>Sun Business Network⁶³ is a multi-stakeholder platform facilitated by GAIN with several corporate entities involved including micronutrient producers- such as BASF, Royal DSM, Cargill.⁶⁴</p> <p>Nutrition Connect- is a platform launched by GAIN⁶⁵ to share knowledge on public private engagements in nutrition and is used to promote the work of several corporations, including micronutrient manufacturers.⁶⁶</p> <p>Indian corporations that the Gain Premix Facility is certifying and purchasing in bulk to sell to institutional buyers across the world from include: AQC Chem Labs, DSM Nutritional Products, Hexagon Nutrition Global Calcium Manisha Pharmoplast, Nu Taste Food & Drink, P D Navkar Biochem, Piramal Enterprises, Pristine Organics, Wella Nutrologicals. Jubilant Life Sciences</p> |
| PATH | Mott MacDonald ⁶⁷ , PATH and Abbott created a proprietary technology called Ultra Rice, [®] a rice fortification technology that they have been promoting within India. |
| Nutrition International (formerly the Micronutrient Initiative) | DSM, ⁶⁸ Teck Resources Limited ⁶⁹ |
| The Food Fortification Initiative (FFI) | BASF, DSM, Cargill ⁷⁰ |
| The Global Child Nutrition Foundation (GCNF) | Cargill, DSM ⁷¹ |

⁶¹ A company launched by Tata's that manufactures Ferrous Fumarate used in fortification

⁶² https://www.business-standard.com/article/pti-stories/big-food-companies-keen-on-food-fortification-fssai-116111701456_1.html

⁶³ <https://sunbusinessnetwork.org>

⁶⁴ <https://sunbusinessnetwork.org/network/global-members/>

⁶⁵ <https://nutritionconnect.org/about-nutritionconnect>

⁶⁶ <https://nutritionconnect.org/resource-center/organisations-platforms-and-initiatives-0>

⁶⁷ https://media.path.org/documents/PATH_Annual_Report_2020.pdf

⁶⁸ <https://www.nutritionintl.org/about-us/partners/>

⁶⁹ <https://www.nutritionintl.org/about-us/donors/>

⁷⁰ <https://www.ffinetwork.org/partners>

⁷¹ <https://gcnf.org/regional-network/>

According to an article in Down to Earth magazine, globally, five multinationals — Germany's BASF, Switzerland's Lonza, France's Adisseo and the Netherlands' Royal DSM and ADM manufacture most vitamins, which are patented⁷². Such entities stand to monopolize and profit from a 3000 crore INR market that will be created as a result of fortification policies, according to the article. The profits for national corporations will likely take the number to even greater heights. Although some vitamins are imported, minerals like iron and its forms that are used for fortification in the current Indian government programme of rice fortification (Ferrous Fumarate, Ferric Pyrophosphate, Ferrous Bisglycinate) are manufactured in India by corporations like Wella Nutrologicals⁷³ (launched by Tata Trusts) and Global Calcium⁷⁴, among several others.

The FSSAI's top officials have openly stated that FFRC's key role is to support food businesses, while the statutory mandate of FSSAI does not include this. The following is a quotation by a former CEO of FSSAI (Mr Pawan Agarwal), in the context of corporations like Unilever, General Mills, and Cargill launching fortified products:⁷⁵

"FSSAI has also established a Food Fortification Resource Centre (FFRC) to facilitate and support food businesses in their fortification efforts. I am reasonably optimistic that fortified staple food will soon be available in the open market and most states will soon switch over to using fortified foods in the government programmes."

⁷² <https://www.downtoearth.org.in/news/food/fortified-rice-scheme-to-create-rs-3-000-crore-market-for-just-five-big-firms-66761>

⁷³ <https://www.wellanutrologicals.com>

⁷⁴ <https://www.globalcalcium.com/verticals/mineral-actives>

⁷⁵ <https://www.nutraingredients-asia.com/Article/2017/04/10/Cargill-General-Mills-and-Unilever-agree-to-fortify-flagship-wheat-flour-brands-with-vitamins-and-minerals-in-India>

Table 2: Some Indian corporations involved in fortification

| <u>Corporations in India that are manufacturing premix</u> ⁷⁶ | <u>FRK manufacturers in India</u> ⁸⁶ |
|--|---|
| AQC Chem Labs= <i>selling to GAIN premix facility</i> ⁷⁷ | Aasray Concept Foods, Assam |
| DSM Nutritional Products = <i>linked to GAIN, Nutrition International, Food Fortification Initiative</i> | <u>JVS Foods Pvt. Ltd.</u> , Rajasthan = <i>selling to GAIN premix Facility</i> , ⁸⁷ <i>launched Wella Nutrologicals</i> |
| Hexagon Nutrition = <i>selling to GAIN premix facility</i> ⁷⁸ | AQC Chem Pvt Ltd, Haryana = <i>selling to GAIN premix facility</i> ⁸⁸ |
| Global Calcium = <i>selling to GAIN premix facility</i> ⁷⁹ | Bihariji Agro Foods Pvt. Ltd., UP |
| Manisha Pharmoplast= <i>selling to GAIN premix facility</i> ⁸⁰ | Christy Friedgram Industry, Tamil Nadu |
| Nu Taste Food & Drink= <i>selling to GAIN premix facility</i> ⁸¹ | DSM Nutritional Products India Pvt Ltd, Gujarat = <i>linked to GAIN, Nutrition International, Food Fortification Initiative</i> |
| P D Navkar Biochem= <i>selling to GAIN premix facility</i> ⁸² | Fuerst Day Lawson Pvt. Ltd |
| Piramal Enterprises= <i>selling to GAIN premix facility</i> ⁸³ | Jova Synthochem (I) Pvt. Ltd., UP |
| Pristine Organics= <i>selling to GAIN premix facility</i> ⁸⁴ | Loften India Pvt. Ltd., Haryana |
| Wella Nutrologicals = <i>launched by Tata Trusts</i> | Pattabhi Agro Foods Pvt. Ltd., AP |
| Jubilant Life Sciences ⁸⁵ | Shiva KB Agro LLP, UP |
| | Wella Nutrologicals, Rajasthan = <i>launched by Tata Trusts</i> |

⁷⁶ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁷⁷ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁷⁸ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁷⁹ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁸⁰ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁸¹ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁸² <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁸³ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁸⁴ <https://gpf.gainhealth.org/suppliers/current-suppliers>

⁸⁵ <https://the-ken.com/story/the-weak-supply-chain-links-in-indias-us350m-year-rice-fortification-plan/>

⁸⁶ https://ffrc.fssai.gov.in/assets/news/file/frk_manufacturers.pdf

⁸⁷ <https://www.jvsfoods.com/about-us>

⁸⁸ <https://gpf.gainhealth.org/suppliers/current-suppliers>

5.5. The Gates Foundation's Role

The FFRC was launched in the presence of Bill Gates himself⁸⁹. Earlier, the Indian government's commitment to promote large scale fortification was undertaken at the Special Meeting on Large Scale Fortification in 2016 with senior representatives of several Ministries present along with key stakeholders, which included Bill Gates as trustee of the BMGF.⁹⁰



Photo: FSSAI launches the FFRC in the presence of Bill Gates

Source: <https://nuffoodsspectrum.in/2016/11/18/bill-gates-attends-fssai-meeting-launches-food-fortification-resource-centre.html>

It is worth noting that the formula being applied in India – of opening up and creating markets for fortified foods via government programs, technical assistance, as well as grants – has already been applied internationally. Back in 2002, the Wall Street Journal reported how the private alliance called GAIN was formed and funded with a 50 million USD grant by the Gates Foundation to incentivise corporate entities like Kraft, Procter & Gamble, H.J. Heinz, and vitamin manufacturers like Roche and BASF to bring fortified and processed foods and staples to impoverished nations.⁹¹

In exchange, GAIN would offer such companies assistance in lobbying for favorable tariffs and tax rates and speedier regulatory review of new products in targeted countries. We now see the same story repeated in India,⁹² where the Gates Foundation continues to fund GAIN and other industry-linked NGOs inside FFRC to open up markets for fortified products. The foundation has also funded accelerators as a way of implementing government programs.

⁸⁹ <https://nuffoodsspectrum.in/2016/11/18/bill-gates-attends-fssai-meeting-launches-food-fortification-resource-centre.html>

⁹⁰ https://ffrc.fssai.gov.in/assets/media_gallery/file/Fortification_Report_New_REVISED.pdf

⁹¹ <https://www.wsj.com/articles/SB1020886090206568560>

⁹² <https://www.wsj.com/articles/SB1020886090206568560>

Table 3: A few examples of BMGF funding to key entities in the FFRC via grants from 2018-2021:

| Year | Name of NGO/entity | Grant Amount |
|--------------------|-------------------------|---|
| 2022 | Nutrition International | \$4,544,523 (37.5 crore INR) to institutionalize, scale up and strengthen large scale food fortification value chains for oil and wheat flour for increased access and availability of quality fortified commodities in a sustainable manner ⁹³ |
| | World Food Programme | <p>\$4,920,300 (40.6 crore INR) to drive results through (digital) innovation of the large-scale food fortification / nutrition ecosystem with the WFP Innovation Accelerator (IA) as a platform partner⁹⁴</p> <p>\$2,229,830 (18.4 crore INR) to generate & increase access to modeled data on risk of dietary Vitamin and Mineral Deficiencies (VMD) at the national and sub-national level to inform the design and evaluation of large-scale food fortification programs.⁹⁵</p> |
| 2021 | GAIN | \$15,500,000 (128 crore INR) to design, test and scale up a digital, field-friendly solution that enables mills and regulators to produce and access traceable data on food fortification quality while also focusing on knowledge management, TA and standards for LSFF. ⁹⁶ |
| | Nutrition International | 1,439,850 USD ⁹⁷ (11.9 crore INR) for scaling up fortification in India's safety net programs |
| | PATH | \$4,856,166 (40.1 crore INR) to provide strategic technical assistance to the Government of India and industry for scaling up availability of quality fortified staple foods in social safety nets and open market ⁹⁸ |
| 2020 ⁹⁹ | Nutrition International | \$1,500,280 (12.4 crore INR) to scale up large scale food fortification using rice, oil, double fortified salt through the social safety net programs in India ¹⁰⁰ |

⁹³ <https://www.gatesfoundation.org/about/committed-grants/2022/10/inv-046387>

⁹⁴ <https://www.gatesfoundation.org/about/committed-grants/2022/11/inv-044402>

⁹⁵ <https://www.gatesfoundation.org/about/committed-grants/2022/05/inv037325>

⁹⁶ <https://www.gatesfoundation.org/about/committed-grants/2021/11/inv035974>

⁹⁷ <https://www.gatesfoundation.org/about/committed-grants/2020/11/inv023179>

⁹⁸ <https://www.gatesfoundation.org/about/committed-grants/2021/10/inv036698>

⁹⁹ [https://docs.gatesfoundation.org/documents/a-01_bmgf%20form%20990-pf_tr_20%20\(pd%20copy\).pdf](https://docs.gatesfoundation.org/documents/a-01_bmgf%20form%20990-pf_tr_20%20(pd%20copy).pdf)

¹⁰⁰ <https://www.gatesfoundation.org/about/committed-grants/2020/11/inv006014>

| | | |
|---------------------|--|---|
| | GAIN | 1,004,598 USD (8.3 crore INR) for nutrition |
| | PATH | \$2,500,000 (20.6 crore INR) to advance the R&D and market expansion models of innovative enterprises leading the digitization of fortification quality, while addressing the impact of COVID on access to fortified foods by vulnerable populations ¹⁰¹ |
| | TATA TRUSTS | 1,025,068 USD (8.3 crore INR) (for nutrition) |
| 2019 ¹⁰² | GAIN | 7,112,815 USD (57.6 crore INR) (for nutrition) |
| | PATH | 141,757,541 USD (1170 crore INR) (for various projects related to health, agriculture, vaccines, nutrition) |
| | TATA TRUSTS | Multi-year grants from previous years were still ongoing such as \$1,000,000 in 2015, or \$3,000,000 in 2016, or \$4,712,072 in 2017. (For nutrition and agricultural development) For .e.g : To establish a joint platform to support and catalyze programs around Maternal, Infant, and Young Child Nutrition and large scale food fortification in India. ¹⁰³ |
| 2018 ¹⁰⁴ | Tata Trusts (which includes Sir Dorabji Tata Trust and Sir Ratan Tata Trust) | 1,549,492 USD (12.8 crore INR) for health, nutrition, and agricultural development |
| | GAIN | \$1,309,198 (10.8 crore INR) to assess the effectiveness of double fortified salt, distributed through the public distribution system in Uttar Pradesh, on anemia in women of childbearing age and children 6 to 59 months of age ¹⁰⁵ |
| | PATH | 168,569,471 USD (for various projects related to health, agriculture, vaccines, nutrition) |

According to the website of the Gates Foundation, most of these grants have come from the Foundation's "Global Growth & Opportunity Division," whose key focus is to create and scale market-based innovations.

Other support by BMGF

The BMGF has also offered grants to start up 'accelerators.' An example is the "Power of Nutrition"¹⁰⁶, a London-based foundation working to end child malnutrition in Africa and Asia. The Power of

¹⁰¹ <https://www.gatesfoundation.org/about/committed-grants/2020/11/inv022986>

¹⁰² https://docs.gatesfoundation.org/Documents/A-01_BMGF%20Form%20990-PF_TR_19%20PD.pdf

¹⁰³ <https://www.gatesfoundation.org/about/committed-grants/2016/11/opp1162649>

¹⁰⁴ <https://docs.gatesfoundation.org/Documents/2018%20BMGF%20Form%20990-PF%20For%20Public%20Disclosure.pdf>

¹⁰⁵ <https://www.gatesfoundation.org/about/committed-grants/2018/04/opp1174166>

¹⁰⁶ <https://www.powerofnutrition.org/partnerships-case-study/bill-melinda-gates-foundation/>

Nutrition prioritizes iron fortification of staples as one of its key interventions¹⁰⁷ and has been co-implementing programs with the governments of Maharashtra and Gujarat making grants to the tune of 5 and 13 million USD to these state governments respectively. The advisory panels of the Power of Nutrition are also linked to industry directly/indirectly. For instance, an Indian technical advisor of the Power of Nutrition¹⁰⁸ is also the Rice Fortification Advisor for the World Food Program and has previously worked with PATH; PATH has collaborated with a corporation called Abbott to develop a proprietary fortified rice technology called Ultra Rice®, which is now being used in mid-day meal programs in some states of India.¹⁰⁹

6. MORE ABOUT THE PARTNERS OF FFRC

6.1. TATA Trusts

Tata Trusts, a private philanthropic organization, is one of the key private collaborators in the government's fortification program. It is the founder¹¹⁰ and funder of the FFRC (in the earlier section, details of the funding of Tata Trusts from Gates Foundation have been given).

The Tata Trusts is involved in several fortification schemes on oil, salt, edible oil and rice. It is an implementing partner in the government's programs on fortification. For example, in the case of rice fortification, Tata Trusts is the implementing partner in the states of Maharashtra, Andhra Pradesh, and Uttar Pradesh where it is working with the state governments, Food Civil Supplies, and Consumer Protection Departments to supply fortified rice across the Public Distribution System as part of Centrally Sponsored Government Scheme announced in June 2019 to introduce fortified rice across the 15 states on pilot basis through the Public distribution System¹¹¹. In Uttar Pradesh, Tata Trusts is working with PATH, another private entity, and they are supporting Akshaya Patra's pilot rice fortification programme for the mid-day meal scheme, in Lucknow, reaching around 100,000 children¹¹².

Tata's financial interest in fortification

Tata Chemicals is producing double fortified salt with iodine and iron, and marketing it across the country.¹¹³ Tata Trust set up Wella Nutrologicals,¹¹⁴ in a "joint effort" with JVS Foods Pvt. Ltd (another nutraceuticals producer), and the University of Toronto. Wella Nutrologicals manufactures Ferrous Fumarate used for fortifying Double Fortified Salt. Wella Nutrologicals is also manufacturing Fortified Rice Kernels and micronutrient premixes.¹¹⁵

The Tata Trusts also founded the The India Nutrition Initiative (TINI)¹¹⁶. TINI has worked closely with the FSSAI to define and notify the standards of fortification for wheat, oil, milk, double fortified salt and rice.¹¹⁷ TINI was also part of the setting up of FFRC in 2018.

¹⁰⁷ <https://www.mathematica.org/download-media?MediaItemId={0023797E-06FD-45E7-A8FE-29EFF60E3FE7}>

¹⁰⁸ <https://www.powerofnutrition.org/who-we-are/governance/>

¹⁰⁹ <https://www.thehindubusinessline.com/news/national/a-fortified-midday-meal-gets-underway-at-karnatakas-government-schools/article9415852.ece>

¹¹⁰ <https://www.tatatrusts.org/our-work/nutrition/policy-and-advocacy/supporting-the-food-fortification-resource-centre>

¹¹¹ https://dfpd.gov.in/Centrally_Sponsored_Pilot_Scheme.htm

¹¹² <https://www.tatatrusts.org/our-work/nutrition/food-fortification/rice-fortification>

¹¹³ <https://www.tatachemicals.com/News-room/Articles/A-pinch-of-good-health>

¹¹⁴ <https://www.wellanutrologicals.com/company-profile.php>

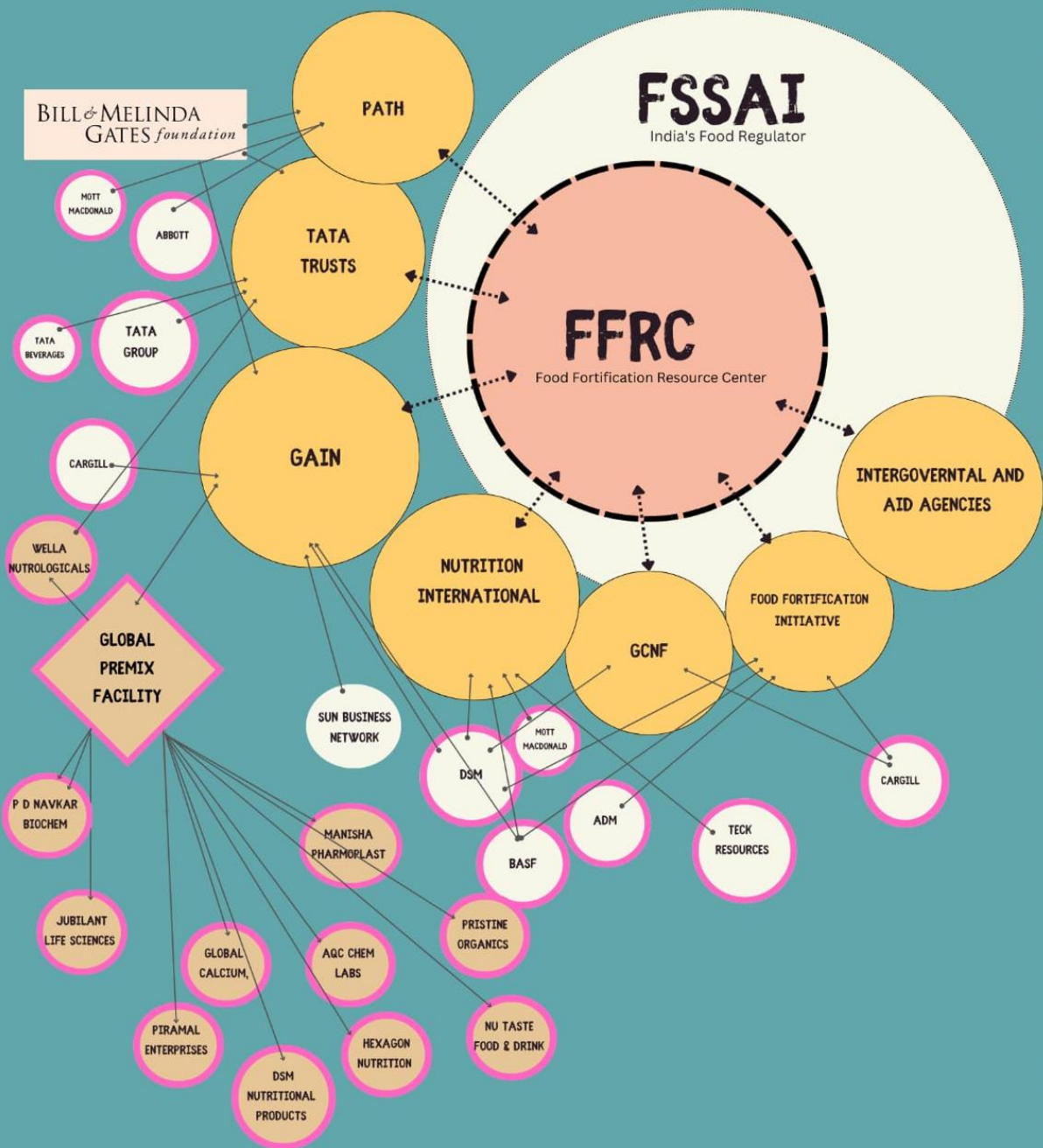
¹¹⁵ https://ffrc.fssai.gov.in/assets/news/file/frk_manufacturers.pdf

¹¹⁶ <https://tini.org.in/about-us/>

¹¹⁷ <https://tini.org.in/food-fortification/>

INDUSTRY PLAYERS AND THEIR LINKAGES TO THE FFRC

Entities highlighted with a pink circle are those that either produce nutraceuticals or market fortified products, thus having a direct profit interest in fortification policies



Link between Tata Trusts and Bill and Melinda Gates Foundation

The Tata Trusts have often collaborated with Bill and Melinda Gates Foundation on nutrition policies in India¹¹⁸. For instance, The Tata Trusts worked with the BMGF and the World Bank on a major program called the Integrated Child Development Services Systems Strengthening and Nutrition Improvement Programme (ISSNIP).¹¹⁹ BMGF funded Tata Trusts with about 50 crore INR to carry out various nutrition programs during 2015-2017.¹²⁰ Other grants are listed in Table 3 of this paper. In 2015, Bill Gates and Ratan Tata penned a joint opinion piece in the Times of India, where they recommended fortification as one of the cost-effective solutions to solve malnutrition.¹²¹

6.2. Global Alliance for Improved Nutrition (GAIN)

GAIN is one of the most important actors in creating a favourable policy environment and market for fortified products. GAIN is a Swiss Foundation, which represents an alliance of actors including corporations that claim to tackle malnutrition. GAIN has been criticized for being a lobby group to open up markets for its hundreds of partner companies (including Danone, Mars, Pepsi, Coca Cola, and pesticide giant BASF).¹²² According to the International Baby Food Action Network (IBFAN),¹²³ GAIN's business links have landed it in controversy in policy spaces before. For instance, the WHO had to abstain from giving GAIN the status of an NGO due to its industry links upon IBFAN's objections calling GAIN not an NGO but a BINGO (Business-friendly International NGO or Big International NGO).¹²⁴

GAIN was founded by the Bill and Melinda Gates Foundation in 2002 with a 50 million USD grant and has received several more grants since then.¹²⁵ GAIN signed up with big food companies like Heinz, Kraft, and vitamin manufacturers like Roche and BASF for them to bring fortified foods into low-income countries via policy advocacy, technical assistance and funding. According to a Wall Street Journal expose,¹²⁶ GAIN helped such corporations to get a *favourable tax policy* and *regulatory review*. The strategy included funding public campaigns for the governments to earn a 'Seal of approval'.

GAIN is vocal about its role as a lobby group and also takes credit for priming the Indian government to adopt mandatory fortification. For instance, this quote from its report states that:

*"It is widely agreed that GAIN played a key role in engaging with FSSAI and convincing various levels of government in certain states to include the mandatory use of fortified edible oil in their national social protection schemes ... importantly, the success of this program has reportedly primed India to adopt mandatory fortification of edible oil."*¹²⁷

One of the conclusions of a self-commissioned evaluation of GAIN's fortification strategies found that demand side strategies were not successful in taking fortifications to scale. Instead, GAIN focuses on other strategies including supporting industry and governance, which apart from advocacy includes the drafting of standards and legislations:

¹¹⁸ <https://horizons.tatatrusts.org/2019/september/Bmgf-nutrition-shawn-baker.html>

¹¹⁹ <https://horizons.tatatrusts.org/2019/september/tata-trusts-nutrition-initiative.html>

¹²⁰ Page 102, <https://nutritionconnect.org/sites/default/files/uploads/resources/2019-04/Large%20Scale%20Food%20Fortification%20in%20India.%20The%20Journey%20So%20Far%20and%20the%20Road%20Ahead..pdf>

¹²¹ <https://www.tatatrusts.org/article/inside/opinion-editorial-ratan-tata-bill-gates-the-times-of-india>

¹²² <https://timesofindia.indiatimes.com/blogs/staying-alive/gain-s-bid-to-enter-who-in-ngo-avatar-stymied/>

¹²³ a global network that works to protect infant health by strengthening independent, transparent and effective controls on the baby food industry

¹²⁴ <https://timesofindia.indiatimes.com/india/global-alliance-for-improved-nutrition-accreditation-as-ngo-deferred-by-who/articleshow/18253823.cms>

¹²⁵ <https://www.gatesfoundation.org/ideas/media-center/press-releases/2002/05/costeffective-food-fortification-initiatives>

¹²⁶ <https://www.babymilkaction.org/archives/31386>

¹²⁷ <https://www.gainhealth.org/sites/default/files/publications/documents/assessment-of-gain-large-scale-food-fortification-portfolio.pdf>

“GAIN’s contributions to the adoption of legislation and standards rely on the drafting and amendments of standards and legislation, the fostering of champions and targeted local advocacy supported by GAIN.”¹²⁸

Moreover, political advocacy with governments remains their core expertise:

“Nationally, GAIN is lauded ... as being a key actor in many contexts in terms of keeping fortification on the table with governments. They are widely seen to place emphasis on relationship building with authorities.”¹²⁹

GAIN’s financial interest in fortification

GAIN creates market access for its corporate members by way of policy advocacy for Large Scale Food Fortification (LSFF). Through its SUN Business Network, GAIN has partnered with vitamin manufacturers like DSM,¹³⁰ BASF,¹³¹ which are major global manufacturers of micronutrients.¹³² While many of the other members of the SUN network include major manufacturers of fortified foods such as Unilever, General Mills, Cargill.¹³³ Such companies are selling their products in the Indian market, thus making them financial beneficiaries of fortification policies in India, thanks to GAIN’s entry into our food safety regulatory body by way of FFRC¹³⁴.

As part of its strategy to support industry, GAIN has set up the **GAIN premix facility** since 2009, through which it certifies corporate suppliers, procures large volumes of premix and fortificants from these suppliers, conducts activities like quality control, and then sells the premix to buyers across the world, thus directly financially benefitting as well.¹³⁵

GAIN has been certifying and procuring premix from several Indian manufacturers of FRK listed in Table 2. To get a picture of its scale globally, in thirteen years of its operation, GPF had procured \$80 million (660 crore INR) worth of premix and sold this across the world.¹³⁶ The facility has also partnered with aid agencies like the World Food Program which are also purchasing directly from the GPF.

6.3. Nutrition International (formerly, the Micronutrient Initiative)

Nutrition International, formerly the Micronutrient Initiative, is an international NGO based in Canada that works to eliminate vitamin and mineral deficiencies in developing countries. It is currently providing technical support to the governments of Gujarat and Madhya Pradesh to scale up the use of double-fortified salt and rice fortification programs within their social safety net programs.¹³⁷ It was a founding donor of GAIN and had made a grant of 5.5 million Canadian Dollars in its initial year¹³⁸ and presumably many others since then.

¹²⁸ <https://www.gainhealth.org/sites/default/files/publications/documents/assessment-of-gain-large-scale-food-fortification-portfolio.pdf>

¹²⁹ *ibid*

¹³⁰ <https://sunbusinessnetwork.org/global-members/?q=DSM>

¹³¹ <https://nutrition.basf.com/global/en/human-nutrition/food-fortification/partnerships.html>

¹³² https://nutrition.basf.com/global/en/human-nutrition/food-fortification/technical_expertise.html

¹³³ <https://sunbusinessnetwork.org/global-members/?q=cargill>

¹³⁴ <https://www.downtoearth.org.in/news/food/fortified-rice-scheme-to-create-rs-3-000-crore-market-for-just-five-big-firms-66761>

¹³⁵ <https://www.blendedfinance.earth/supply-chain-innovations/2020/11/16/gain-premix-facility>

¹³⁶ <https://gpf.gainhealth.org/about/objectives>

¹³⁷ <https://www.nutritionintl.org/project/optimizing-indias-social-safety-net-programs/>

¹³⁸ <https://www.gatesfoundation.org/ideas/media-center/press-releases/2002/05/costeffective-food-fortification-initiatives>

Nutrition International's financial interest in food fortification

Nutrition International has some private partners which have changed over the years. Many of these are manufacturers of micronutrients that are imported into global south countries like India, Bangladesh, and Pakistan - they are Mott MacDonald¹³⁹, DSM¹⁴⁰, BASF¹⁴¹ and Teck Resources Limited¹⁴². These actors have created national level alliances, for lobbying and opening markets in developing countries. For instance, the Food Fortification Program (FFP) in Pakistan.¹⁴³

DSM is based in the Netherlands and makes food ingredients and vitamins. In 2002, Roche sold its nutrients business to DSM making it one of the big players. DSM has already opened its first premix plant of India in Gujarat citing "tremendous opportunity" in India.¹⁴⁴ BASF is a US company that manufactures micronutrients, fortification technology,¹⁴⁵ food performance ingredients', beverage stabilizers, and colorants.

All of these corporate partners that operate in India stand to gain financially through fortification policies.

6.4. The Food Fortification Initiative (FFI)

The Food Fortification Initiative (FFI) defines itself as a "public, private, and civic partnership"¹⁴⁶ that provides technical assistance to governments, regional bodies, food producers, and implementing agencies to plan, implement, and monitor fortification of industrially milled wheat flour, maize flour, and rice. FFI is the only global group that focuses exclusively on these three commonly consumed grains (wheat, maize and rice) as a means of addressing the global burden of vitamin and mineral deficiencies.

India is one of FFI's key focus countries and it is working in four states - Haryana, Madhya Pradesh, Maharashtra and Rajasthan. In these states, FFI does advocacy and project coordination to establish an environment for fortification.¹⁴⁷ It is currently exploring opportunities to expand large scale fortification in 18 Indian states.¹⁴⁸

FFI's financial interest in food fortification

FFI lists among its 'multi sector partners and executive management team members' - BASF, DSM, ADM as well as several other FFRC partners like PATH, GAIN, Nutrition International.¹⁴⁹ As already described earlier, BASF, ADM, and DSM are manufacturers of micronutrients.¹⁵⁰

¹³⁹ <https://www.nutritionintl.org/project/food-fortification-program-ffp-pakistan/>

¹⁴⁰ <https://www.nutritionintl.org/about-us/partners/>

¹⁴¹ <https://www.basf.com/in/en/who-we-are/sustainability/innovating-for-sustainability/fighting-malnutrition-in-pakistan.html>

¹⁴² <https://www.teck.com/news/news-releases/2017/nutrition-international,-teck-and-global-affairs-canada-renew-partnership-to-save-children-s-lives-with-zinc-treatments>

¹⁴³ <https://www.nutritionintl.org/news/events/mi-mott-macdonald-lead-dfid-funded-program-save-lives-food-fortification-pakistan/>

¹⁴⁴ <https://www.foodnavigator-asia.com/Article/2014/04/10/DSM-opens-its-first-premix-plant-in-India>

¹⁴⁵ <https://nutrition.basf.com/global/en/human-nutrition/food-fortification/applications/rice.html>

¹⁴⁶ <https://www.ffinetwork.org/our-work>

¹⁴⁷ <https://www.ffinetwork.org/india-region>

¹⁴⁸ ibid

¹⁴⁹ <https://www.ffinetwork.org/partners>

¹⁵⁰ <https://www.downtoearth.org.in/news/food/fortified-rice-scheme-to-create-rs-3-000-crore-market-for-just-five-big-firms-66761>

6.5. PATH

PATH has been working on fortification in India since 2005,¹⁵¹ including in the governments safety net food programs.¹⁵² PATH has a proprietary rice fortification technology called Ultra Rice® with funding from Abbott Fund, the philanthropic arm of Abbott.¹⁵³ Path and Abbott have been expanding Ultra Rice® technology in India since 2011, including into the government's food programs.^{154,155} Along with Ultra Rice®, PATH has also been developing and marketing equipment in India.¹⁵⁶ PATH also claims to have influenced the FSSAI in formulating food fortification standards.¹⁵⁷

Currently, PATH has operations in Gujarat, Chandigarh, and their biggest presence is in Karnataka, where they are working in six state-level Akshaya Patra Foundation kitchens under the Midday Meal (MDM) scheme.¹⁵⁸ PATH has been providing technical support to other actors in the FFRC, such as the Tata Trusts via their fortification pilot program in Gadchiroli, Maharashtra.¹⁵⁹

PATH's financial interest in food fortification

Ever since 2011, Path has expanded their proprietary Ultra Rice® technology and opened markets for the same in India with funding from the Abbott Fund.¹⁶⁰ PATH has also been selling blending and monitoring equipment to millers.¹⁶¹ PATH's collaboration with other actors like Akshay Patra has ensured supply of Ultra Rice® in mid-day meal programs such as the one in Karnataka in 2018.¹⁶²

6.6. World Food Program

The World Food Programme is the food-assistance branch of the United Nations. Its key focus is on hunger and food security, and it is the largest provider of school meals. The WFP has been criticized for its close corporate ties, as well as its food aid approach of dumping imported corporate produce in the developing world, thus harming local farmers livelihoods and food systems, and destroying the ability of the countries to feed themselves.¹⁶³

WFP's corporate ties

The WFP collaborates on several multistakeholder platforms, start-up accelerators, that include many industry players through which it has been funding and promoting fortification. For instance, in India it has been partnering with General Mills company for mid-day meals in UP.¹⁶⁴ It also partners with DSM, which is a manufacturer of micronutrients, to expand fortified rice across the world.¹⁶⁵

¹⁵¹ <https://www.fortifyhealth.global/path-and-akshaya-patra.html>

¹⁵² <https://www.path.org/where-we-work/india/>

¹⁵³ <https://www.nutritionnews.abbott/malnutrition/global-issue/ultra-rice-in-india/>

¹⁵⁴ <https://www.path.org/media-center/path-abbott-and-the-abbott-fund-form-innovative-partnership-to-prevent-malnutrition/>

¹⁵⁵ <https://www.path.org/articles/harnessing-power-fortified-rice-stronger-healthier-india/>

¹⁵⁶ <https://www.path.org/media-center/path-abbott-and-the-abbott-fund-form-innovative-partnership-to-prevent-malnutrition/>

¹⁵⁷ <https://www.path.org/articles/harnessing-power-fortified-rice-stronger-healthier-india/>

¹⁵⁸ <https://www.fortifyhealth.global/path-and-akshaya-patra.html>

¹⁵⁹ <https://www.path.org/articles/harnessing-power-fortified-rice-stronger-healthier-india/>

¹⁶⁰ <https://www.fiercepharma.com/pharma/path-abbott-and-abbott-fund-form-innovative-partnership-to-prevent-malnutrition>

¹⁶¹ <https://www.path.org/media-center/path-abbott-and-the-abbott-fund-form-innovative-partnership-to-prevent-malnutrition/>

¹⁶² <https://www.thehindubusinessline.com/news/national/a-fortified-midday-meal-gets-underway-at-karnatakas-government-schools/article9415852.ece>

¹⁶³ <https://www.theelephant.info/op-eds/2020/10/16/food-crimes-why-wfp-doesnt-deserve-the-nobel-peace-prize/>

¹⁶⁴ <https://www.wfpusa.org/articles/fortifying-futures-how-school-meals-in-india-inspired-me/>

¹⁶⁵ <https://annualreport.dsm.com/ar2021/report-by-the-managing-board/stakeholders/collaborative-platforms-and-networks/nutrition-health-initiatives.html>

7. CONCLUSIONS & CONCERNS WITH THE FFRC BEING HOUSED IN THE FSSAI

1. **Conflict of interest** –It is clear that there is an actual conflict of interest with the FFRC being housed in the regulatory body, given the potential monetary benefits flowing from fortification policies, for at least some of the partners of FFRC and their funders/members. It is reasonable to perceive that FSSAI's independence and objectivity is influenced given that the FFRC is involved from the conception, to implementation, to conducting pilot studies, and providing technology and machinery. We see no independent action being taken by the FSSAI, but rather all their work seems to be tainted by the FFRC. There is also a perceived conflict of interest given the potential of FFRC to influence the FSSAI, in future too. The outcome-based conflict of interest is becoming apparent too, given that FFRC is running around the country, trying to justify the non-compliance to the statutory regulations of the FSSAI. An institutional conflict of interest is evident given the FFRC, a mainly private alliance whose members have a potential profit interest, is located inside the FSSAI. An objectionable outcome of the presence of FFRC in the FSSAI has been that India's governmental ministries are abdicating their accountability to citizens in their policy formulation and execution, willingly being led by FFRC.
2. **One sided portrayal of fortification:** There is not even one partner in the FFRC that has a critical perspective on fortification as an approach. There is no information on the FFRC website that points towards any health concerns that could arise for several population groups who are contraindicated to consume iron; patients of Thalassemia, Sickle Cell Disease, people with acute infections and acute malnutrition, and those with metabolic disorders. Given that the government is planning to provide iron-fortified rice to almost two-thirds of our population, it is imperative that such risk analysis is conducted and any risks of fortification highlighted. At the same time, holistic, cheaper, and community led alternatives to fortification must be promoted.
3. **Divergent Mandates of FSSAI and FFRC:** According to the Food Safety and Standards Act 2006¹⁶⁶, the FSSAI is a statutory body that is supposed to be guided by the principles of food safety which include risk assessment in an independent manner, transparent public consultations, protection of consumer choice and interest among others. The FFRC on the other hand has a sponsored promotional role based on an uncritical push of chemically fortified foods without assessment of public health risks. There is a clear divergence between their mandates. The mandate of the FSSAI requires that a promoter of a particular technology (FFRC), that too with clear conflict of interest where entities associated with FFRC stand to gain financially, is not housed within the regulatory body.

Given all of the concerns outlined above, this report highlights the structural problem in housing private interests within a regulatory body like the FSSAI. The private players in the FFRC not only provide funding, but also advisory services, sell proprietary technologies, co-implement state programs, conduct the governments 'independent' pilot studies. Their sphere of influence is wide and is bound to bring profits by capturing markets and the state's food programs. Moreover, we have also seen that this same formula has been applied by the same entities in other developing countries before.

We call for an immediate re-evaluation of the stakeholders within the FSSAI and an investigation into conflict of interest in order to ensure that the FSSAI receives unbiased expertise to be able to conduct its affairs in the interest of public health and the right to food.

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¹⁶⁶ <https://fssai.gov.in/upload/uploadfiles/files/FOOD-ACT.pdf>