Daurali Devi lives in one of Delhi’s unauthorised colonies. She has no idea what the +F symbol stands for, but lately the 65-year-old has started looking for it on the milk sachet that she buys. Her grandchild's paediatrician has told Devi that milk embossed with the sign has “zyada takat” (more strength) and it’s good for her three-year-old grandson who suffered from low-weight since birth.

Her grandson is part of the 25 per cent of the Delhi’s population that suffers from malnutrition. Addressing the problem, Delhi late last year joined the effort to fortify common foods with micro-nutrients when milk caterer, Mother Dairy took the lead by adding Vitamin A and D to all its poly packs. Daurali's family, which was earlier buying unpackaged milk from Mother Dairy, was among the hundreds that shifted to the sachet on advice from a medical practitioner.

Not just Delhi, malnutrition continues to ail a significant percentage of India’s population. For instance, the National Family Health Survey of March 2017 shows that over a quarter of children under the age of five are stunted (low height for age) in all of India’s major state capitals, except in Kochi and Hyderabad.

The 2016 Global Hunger Index ranked India 97th out of 118 countries behind Nepal, Sri Lanka, Bangladesh. It was positioned 80 out of 104 countries the previous year.`
Given the seriousness of the issue, a renewed attempt is being made to address malnutrition through food fortification. While till a few months ago, there was talk of a food fortification policy being worked out, the Government is now moving forward through FSSAI (Food Safety and Standards Authority of India).

Nearly 40 companies have come forward to lend their hand and are fortifying their products, following the +F formula. Some are fortifying their product for the pan-India market, while others are targeting specific States.

“Food fortification is nothing new. Everyone agrees it needs to be done and wants to do it. But it doesn’t get done,” says Pawan Kumar Agarwal, Chief Executive Officer at FSSAI. “All it requires is aligning a few things for the industry to start fortifying and the consumer to start accepting. It’s like the chicken and egg story, which comes first,” adds Agarwal, who is pro-actively pushing for a greater embrace by states and food companies.

Testing the waters

Delhi is one of the recent states to join the fight against malnutrition. Some of its peers, including Rajasthan and Madhya Pradesh have taken the lead in adding nutrients to staple foods such as wheat flour and oil through a pilot project initiated by the Global Alliance for Improved Nutrition (GAIN). The international organisation was launched in 2002, at the United Nation's Special Session on Children to tackle human suffering caused by malnutrition.

The two States were chosen due to their high burden of malnutrition. According to the National Family Health Survey-3 (NFHS 3), in Madhya Pradesh 25 per cent population under five years suffers from stunting, 30 per cent in the same group from wasting, 29 per cent from anaemia, 21 per cent newborns have low birth weight and 27 per cent of reproductive age women have chronic energy deficiency.
Rajasthan's indicators are also as poor. GAIN looked at consumption patterns of both the States and found that wheat, milk and oil were consumed in the largest volumes. They then interacted with large industries packaging the commodities and nudged them to fortify their products.

Typically, oil was enhanced with Vitamin A and Vitamin D, while wheat flour was fortified with iron, folic acid, Vitamin A, B12, B 3, B1, B 2, B 6 and zinc. While voluntary fortification through commercial channels were selected in both the States, in Rajasthan distribution of fortified foods was also carried out through key government schemes like the public distribution system (PDS), the school mid-day meals (MDM) and the Integrated Child Development Services (ICDS) that caters to children under six years, and to pregnant and lactating mothers.

Since 2002, several States have chosen to use government programmes for distribution of fortified staple foods and some are still in the process of building their strategy. For instance, fortified oil is being routed through the PDS in Himachal Pradesh, Karnataka and Gujarat, Rajasthan and parts of Haryana; it is being used for MDM in Madhya Pradesh, Punjab, Himachal Pradesh, Rajasthan and one district of Haryana; and for ICDS meals in Rajasthan and parts of Haryana.

Similarly, fortified wheat flour has made inroads through PDS into West Bengal and Andaman & Nicobar Islands. While a pilot project for enhanced wheat flour is underway in Maharashtra's Navi Mumbai, a roll out is under consideration by the Kerala and Haryana government. Fortifying of rice is still at a nascent stage and only some parts of Odisha, Karnataka and Haryana are using the fortified product for school mid-day meals. The crucial question in all efforts to introduce fortified staples is public acceptance of the product and willingness to pay marginally more for it.

**Standards for staples**
From the Government’s end, the food fortification project is being taken forward by the FSSAI. Apart from Tata Trusts and GAIN, it is working with other development partners including the Bill and Melinda Gates Foundation, The Clinton Health Access Initiative, Inc., The Coalition for Food and Nutrition Security, India, Iodine Global Network, UNICEF and World Food Programme.

FSSAI of course also co-ordinates with the concerned Central ministries to make the roll out smoother.

And this year the food safety organisation has taken several leaps to make things actually happen on the ground. To begin with, the FSSAI has formulated the +F symbol that denotes that a product has been fortified correctly — the same symbol that Daurali Devi looked for when she bought her milk sachet.

Along with this, FSSAI has put in place standards for fortification of five staples commodities — wheat flour, milk, oil, rice and salt. To converge all efforts at increasing the nutritive content of the Indian diet it established Food Fortification Resource Centre (FFRC) at its headquarters in Delhi in November last year. This is now functioning as a nodal agency for food fortification in the country.

For now, food fortification remains a voluntary exercise to be undertaken by the relevant industry as well as the States. However, for it to be implemented effectively at any level it needs multi-stakeholder engagement. “We are a rallying point on fortification and are involved in facilitating and providing all the stakeholders technical support,” explains Smita Mankad, head of FFRC who says that the last six months has been an effort in bringing all the players to the table.
Identify the food vehicle

So, how is food fortification done? Dr Rajan Sankar, Programme Director, Nutrition at Tata Trusts, says that the first step is to identify commonly eaten foods in a region. Those foods then “can act as vehicles for one or more micro-nutrients and lend themselves to centralised processing on an economical scale.”

This is because when fortification is done on foods that are in the everyday diet of large populations, it does not require people to change their dietary and food patterns, so are easily accepted. “It can be dovetailed into existing food production and distribution systems,” explains Dr Sankar who has implemented several fortification programmes.

And that is exactly how it is being rolled out. On the one hand, the food industry is being made aware of the need to fortify all its packaged food. On the other hand, State Governments are being sensitised on how crucial it is to distribute fortified food through public channels.

The trend seems to be catching on. For instance, in April this year, Tamil Nadu inaugurated a salt refinery to manufacture double fortified salt (DFS), which will be channelled through the PDS, the mid-day meal scheme, anganwadis and primary health centres.

Tata Trusts is helping the State Government implement the project. DFS has also been a choice of other States like Uttar Pradesh, Tripura, Karnataka, Haryana and Madhya Pradesh.

It may be recalled that ahead of the 2017 Assembly elections, then Uttar Pradesh Chief Minister, Akhilesh Yadav, launched double fortified ‘Swadeshi’ salt for marginalised communities.

Industry on board

Agarwal and Mankad say that the private sector has reacted quite positively to fortifying its products.
In wheat flour, brands such as Aashirwad, Golden Harvest, Risolta, Energetic, Vitamin Plus, Kumar Chakki Atta and Harmony Chakki Fresh have chosen to fortify. Some States such as West Bengal, Andaman & Nicobar Islands are also supplying fortified wheat through their public distribution system. Milk is being fortified by a large number of players now. Mother Dairy started with Delhi but has taken its initiative pan India. So has Kwality Limited, which also sells milk apart from ice creams.

The milk cooperatives in Haryana, Punjab, West Assam, Jharkhand, Rajasthan, and Creamline Diary in Tamil Nadu have followed suit. Oil has had as many as 11 companies joining in including the much advertised, top of the pile brands like Fortune, Saffola, Ruchi Gold, Sweekar, and Nature Fresh.

What makes it easier to convince private players to come on board is the fact that cost has never been the main deterrent to fortification. According to FSSAI, the price to fortify food is minuscule. It costs as much as ₹30 to ₹100 per metric tonne which works out to just about 3 to 10 paisa per kg of food, depending on the type and number of micro-nutrients that are being added and the staple food that has been chosen to be fortified.

It needs just eight paise to fortify a litre of oil, eight paise for a kilogram of wheat flour. Around 30 – 40 paise for a kilogram of rice and ₹2-3 for a kg of DFS.

“The challenge is not the cost, it’s convincing companies and consumers on the merits of fortification. When the demand comes from the consumer, more industry players will fall in line,” explains Agarwal.

This is the chicken and egg story that he has been trying to tackle. “Nudge both demand and supply, bring stakeholders to the table, connect industry to premix suppliers, offer technical training and expand consumer awareness.” The result should soon be out for all to see.