

Fortifying India

Improving India's Nutritional Outcomes through Double Fortified Salt and Fortified Rice

Background

Over half of preschool-aged children (372 million) and about two-thirds of women of reproductive age (1.2 billion) globally suffer from micronutrient deficiencies¹ with consequences that include anaemia, cognitive delays, weakened immunity and increased risk of birth defects. Food fortification is a proven, cost-effective, and scalable intervention to address micronutrient malnutrition without changing people's dietary habits.

Nutrition International's Journey in Food Fortification

For 30 years, Nutrition International has been committed to reducing

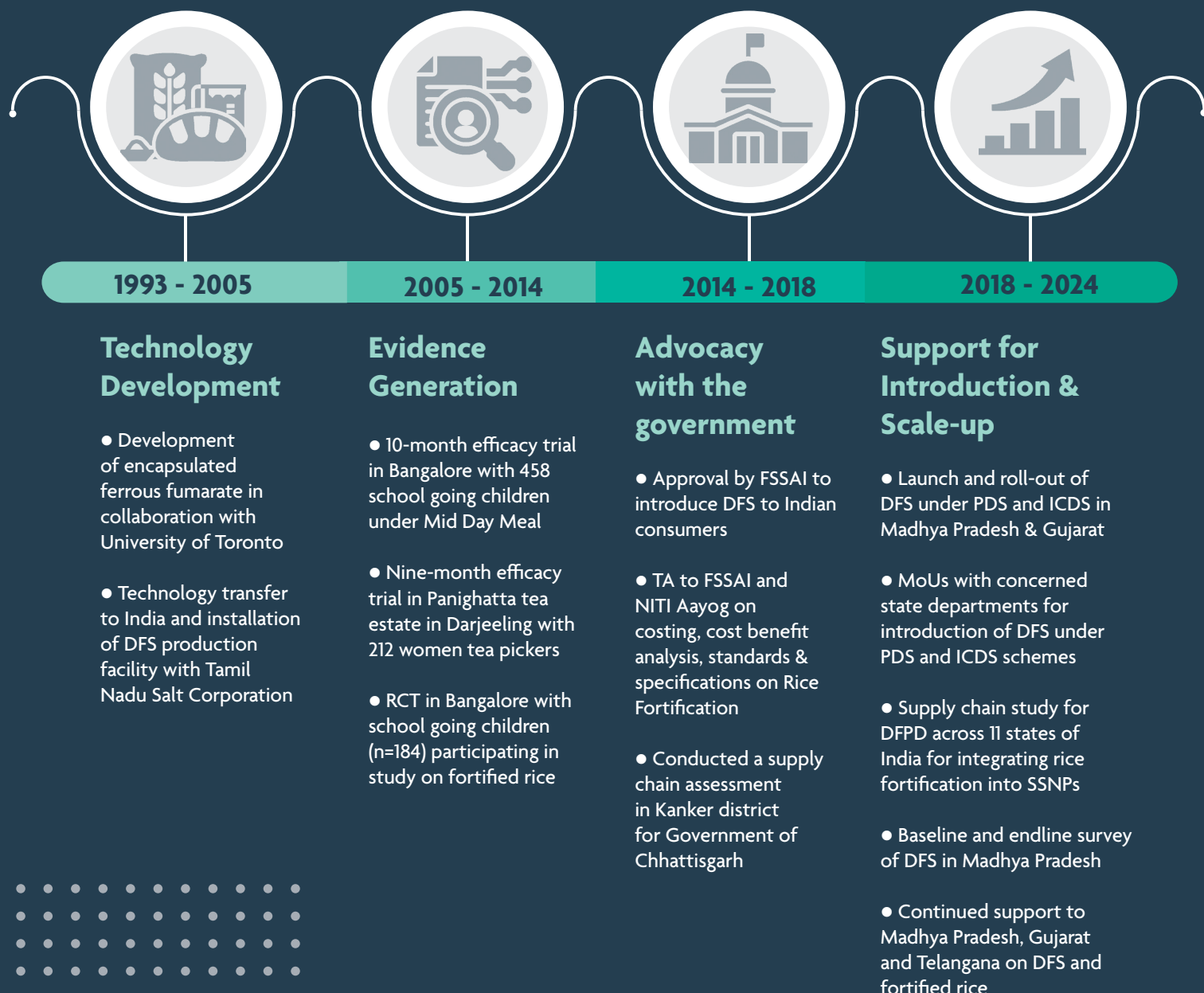
malnutrition for all population groups, leading the way in food fortification initiatives that effectively combat widespread nutrient deficiencies.

With significant momentum around food fortification in India in recent times, Nutrition International has been working closely with national and state governments to drive availability and access to adequately fortified food in the country through its interventions in double fortified salt and fortified rice.

Nutrition International works with the Government of India, providing technical assistance and supporting them to scale up their nutrition programs by collaborating with various stakeholders through an ecosystem approach.

¹Stevens et. al. Micronutrient deficiencies among preschool-aged children and women of reproductive age worldwide: a pooled analysis of individual-level data from population-representative surveys. *Lancet Global Health* 2022; 10: e1590–99

Food Fortification: The Journey



Evaluation of Consumption of Double Fortified Salt in Madhya Pradesh, India

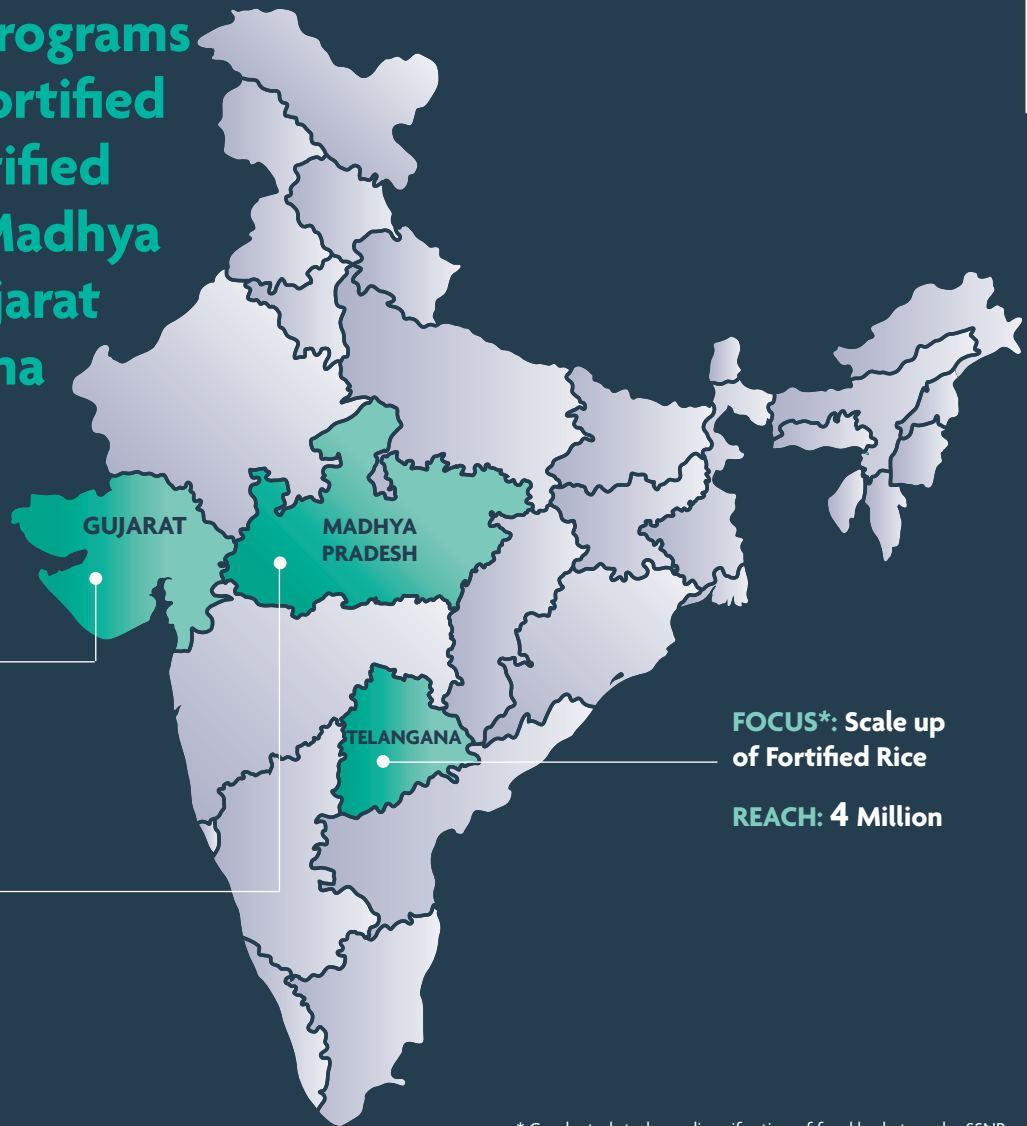
In 2018 the Government of Madhya Pradesh initiated the distribution of double fortified salt (fortified with iodine and Encapsulated Ferrous Fumarate) through the Public Distribution System (PDS) on a pilot basis. The intervention targeted 89 tribal blocks spread across 20 districts of the state. Nutrition International has been supporting the implementation of this pilot across 38 blocks of five contiguous districts including Alirajpur, Barwani, Dhar, Jhabua & Khargone. To assess the effectiveness of the intervention, Nutrition

International commissioned an evaluation study. A baseline evaluation of the existing program was conducted in 2018 and an endline evaluation was carried out in 2021 with the main goal of assessing the impact of proposed interventions on the target population.

Key Objectives of Endline Survey:

- Assess the prevalence of anaemia, iron deficiency and iron deficiency anaemia among non-pregnant women of reproductive age
- Assess the type and coverage of salt consumed by respondent households
- Assess knowledge levels among respondent consumers about anaemia, importance

Scaling up programs on double fortified salt and fortified rice across Madhya Pradesh, Gujarat and Telangana



FOCUS: Scale up of Fortified Rice and DFS

REACH: 51 Million

FOCUS: Scale up of Fortified Rice and DFS

REACH: 40 Million

FOCUS*: Scale up of Fortified Rice

REACH: 4 Million

* Conducted study on diversification of food baskets under SSNPs

Stakeholders: • Government of India - Food Safety and Standards Authority of India, Food & Civil Supplies Department, Dept of Food and Public Distribution, National Institution for Transforming India (NITI) Aayog, Bureau of Indian Standards, State Governments

- Food businesses - Rice Millers, Salt Manufacturers, Premix Manufacturers
- Academia and Technical Bodies
- Laboratories
- Communities

of consuming iron-rich food and IFA supplementation along with awareness of availability, accessibility, and regularity of DFS through PDS

Geographical Coverage:

The study coverage spanned ten districts in Madhya Pradesh, including five intervention

districts and five comparison districts sampled for the purpose of impact assessment.

Key Findings:

- Anaemia prevalence dropped significantly (four percentage points) from baseline to endline in the intervention group. A shift was observed in the category of women shifting from more



severe to less severe forms of anaemia. This shift was significant in the moderate anaemia category.

- Both the comparison group and the intervention group experienced a significant decrease in the prevalence of iron deficiency over time (four percentage points and six percentage points respectively).
- In the intervention group, iron deficiency anaemia also reduced significantly by five percentage points from baseline to endline.

The findings remains the same when covariates (age, wealth index, education, type of region, structure of the family, consumption of grains, consumption of vitamin A rich fruits and vegetables, consumption of organ meat, consumption of other meat) are adjusted.

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About Nutrition International

Founded in 1992, Nutrition International is a global organization dedicated to delivering proven nutrition interventions to those who need them most. Working in partnership with countries, donors and implementers, our experts conduct cutting-edge nutrition research, support critical policy formulation, and integrate nutrition into broader development programs. In more than 60 countries, primarily in Asia and Africa, Nutrition International nourishes people to nourish life. To learn more, visit www.NutritionIntl.org