The MDM Programme in Eastern States like Odisha is primarily rice-based. All Primary and Upper Primary school children get 100g and 150g of rice per day, respectively.

School children benefit from the MDM scheme each year in Odisha, thereby boosting iron intake.

4.92 million children benefit from the MDM scheme each year in Odisha.

Why rice? Why mid day meal?

65% Indians consume rice.

The average iron intake of school children in Odisha is much less than the RDA.

*RDA or Recommended Dietary Allowance is the average daily intake of nutrients sufficient to meet the nutrient requirements of nearly all healthy people.

The World Food Programme is the world’s largest humanitarian agency fighting hunger worldwide. WFP is part of the United Nations system and is voluntarily funded. Born in 1961, WFP pursues a vision of the world in which every man, woman and child has access at all times to the food needed for an active and healthy life.

In India, WFP supports government food safety nets like the Targeted Public Distribution System, the Mid-Day Meal Programme in schools and the Integrated Child Development Services. The overall aim is to work towards efficient, accountable and streamlined systems for food access, delivery as well as increasing the nutritional impact of government programmes. WFP works at the central government level, supporting policy reform, strategy and evidence based advocacy. At the state level, WFP works through a pilot to scale-up approach. WFP works through partnerships with the government, private sector and UN agencies.

0.24-0.36 per student is the incremental cost for the production and delivery of fortified rice as calculated in the Gajapati initiative.

0.08-0.12 per student is the incremental cost for scale up of fortified rice in MDM.

The World Food Programme
The World Food Programme in collaboration with the government of Odisha implemented a pilot on fortification of rice under the mid day meal programme in Gajapati, Odisha. The programme aimed to reduce anaemia among school children through fortification.

Along with fortification, WFP also invested in educating and training the stakeholders on the issues of anaemia. Communication materials were developed in the local language.

The model created is easily replicable for integration of fortification in MDM.

The evidence generated demonstrates a need for a policy push to include fortified rice in the MDM.

The supply chain was structured to make it leak proof and efficient, keeping scalability in mind. The initiative was a cost-effective strategy to address anaemia.

An Extra Ordinary Meal

WFP FORTIFIED 5,352 metric tons of rice for 99,231 school children in 1,449 schools in Gajapati over 40 months. The supply chain was structured to make it leak proof and efficient, keeping scalability in mind. The initiative was a cost-effective strategy to address anaemia.

20 percentage points decrease in anaemia in Gajapati.

6 percentage points decrease is directly due to fortified rice.

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INDIANS CONSUME RICE

WHY FORTIFY RICE?

65%

65%

55.3%

24.2%

69.5%

RICE IS CENTRAL TO ALL FOOD SECURITY SCHEMES IN INDIA

2013-14: 26.86 Million Tons of Rice Allotted Through Targeted Public Distribution System

2015: 2.34 Million Tons of Rice Allotted Under the Mid Day Meal Scheme

GLOBALLY RICE IS FORTIFIED THROUGH 3 METHODS

COATING • EXTRUSION • DUSTING

WFP EMPLOYED THE EXTRUSION METHOD FOR ITS GAJAPATI INITIATIVE, PREFERRED FOR THE PRODUCTION OF FORTIFIED RICE KERNELS OWING TO ITS LOW COST AND STABILITY ACROSS PROCESSING, STORAGE, WASHING AND COOKING.

THE PULVERISED RICE IS MIXED WITH FERRIC PYROPHOSPHATE TO MAKE FORTIFIED RICE KERNELS WHICH CONTAIN 10 MG OF IRON IN 1 G

FORTIFIED RICE KERNELS CAN BE PRODUCED BY RICE MILLS, EXTRUDED SNACK MANUFACTURERS AND PASTA MANUFACTURERS

100g OF FORTIFIED RICE PROVIDES 10 MG OF IRON

THE FORTIFIED KERNEL IS ADDDED TO NORMAL RICE IN A RATIO OF 1:100

WHY FORTIFY?

55.3%

OF WOMEN IN AGE GROUP 15-49 YEARS HAVE ANAEMIA

24.2%

OF MEN IN AGE GROUP 15-49 YEARS HAVE ANAEMIA

69.5%

OF CHILDREN IN AGE GROUP 6-59 MONTHS HAVE ANAEMIA

A COMBINED DEFICIENCY OF VITAMIN A, IRON AND ZINC LEADS TO HIGH MORBIDITY AND MORTALITY

WORLD FOOD PROGRAMME

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The world food programme is the world's largest humanitarian agency fighting hunger worldwide.
The Project implemented in collaboration with the government of Odisha proved the use of rice as technically effective for fortification and feasible to incorporate into existing government systems.

The FSSAI has set the standards for fortification of rice.

FORTIFIED RICE CAN BE DELIVERED THROUGH TWO CHANNELS, ONE BEING SOCIAL SAFETY NETS LIKE THE MDM, TPDFS AND ICDS, THE SECOND BEING MARKET-DRIVEN WHERE IT IS MADE AVAILABLE THROUGH PRIVATE PRODUCERS AND DISTRIBUTORS.

The project implemented in collaboration with the government of Odisha proved the use of rice as technically effective for fortification and feasible to incorporate into existing government systems.

The FSSAI has set the standards for fortification of rice.