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Combating Anemia

What is the issue?

In an effort to combat the serious problem of anaemia due to malnutrition, Indian PM made an announcement to mandate rice fortification in all social safety net schemes by 2024.

RICE FORTIFICATION

Fortifying rice involves grinding broken rice into powder, mixing it with nutrients like iron, folic acid and vitamin B12, and then shaping it into rice-like kernels using an extrusion process. These fortified kernels are then mixed with normal rice in a 1:100 ratio and distributed for consumption.



DALY	WHO's meta-analysis - An outlay of around ₹2,800 crore per annum for rice fortification can avert 35% of the total or 16.6 million Disability Adjusted Life Years (DALYs) per year with no known risk of toxicity.
ANAEMIA	Amounting to only around 1% of the food subsidy bill in 2018-19, rice fortification has the potential to avert a total of 94.1 million anaemia cases that can lead to savings of ₹8,098 crore over a period of 5 years.
2024 TARGET	Universalisation of rice fortification by 2024, will cover about 100 crore target population, including about 20 crore women of reproductive age.

Why should anaemia be addressed immediately?

- Despite reducing anaemia among children over the last decade, anaemia still impacts more than half of children and women.
- WHO has declared anaemia among women and children as a "severe" public health problem, demanding immediate attention.
- Further, recent statistics indicate rise in anaemia levels among women and children in most States/UTs (NFHS-5).

What are the known causes?

- **Iron deficiency**-anaemia is the biggest cause of disability for the past 10 years.
- It contributed 20% direct and 50% associated maternal deaths in India.

- Its economic burden is equivalent to about 4% of GDP.
- Apart from iron, deficiency in micronutrient like vitamin B12, vitamin A, folate and zinc also contribute to rising anaemia levels.
- **Vitamin B12 deficiency** impacts one in six pre-school children and one in three adolescents.
- **Folate deficiency** affects one in three school-aged children and one in four adolescents.
- The nutritional status and associated nutrient deficiencies is primarily a reflection of **unbalanced and poor diet**.
- Low consumption of nutritious food like fruits, vegetables, milk, pulses, meat, poultry, etc is also a reason.

Only 6% and 9% of children between 6-23 months consume the minimum acceptable diet and iron rich food, respectively.

There is a gap of nutritious dietary intakes when compared to Recommended Dietary Allowance (RDA).

E.g. 75% and 50% lower iron amongst rural population and adolescents; 50% lower vitamin A; and 50-75% lower folate and riboflavin.

- FAO recently attributed **affordability** of cost intensive healthy diets as a constraint in achieving the nutrition related SDGs globally.
- At \$1/person per day, India's spending on diet is significantly lower than the EAT Lancet dietary recommendations of \$3-5.
- Nearly two-thirds of the rural poor cannot afford a nutritious diet that meets India's national food-based dietary guidelines.

How is rice fortification the right option?

- If eggs and milk are included, the cost of nutrition would increase substantially.
- On the other hand, rice, a staple cereal, is consumed by 65% of the population (6.8 kg per capita per month).
- Thus, fortifying rice with micronutrients is an ideal option to address malnutrition within a short period, particularly among vulnerable populations.

What are the other measures?

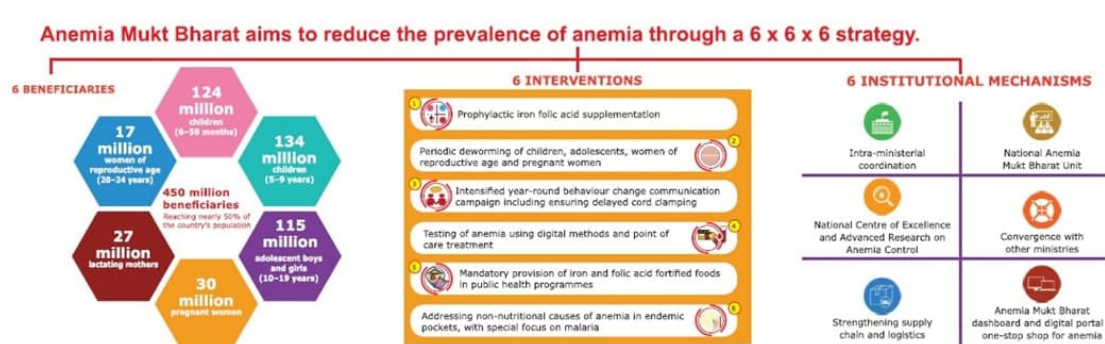
Standardisation

- FSSAI is working on Fortified Rice Kernels standardisation.
- It is also enabling setting up more National Accreditation Board for Testing and Calibration Laboratories accredited labs and BIS Standardisation of Extruders/Blenders, to ensure quality.

Multi-pronged strategy

- FCI is working to ensure distribution of 13.70 lakh tonnes of fortified rice in ICDS and MDM.
- Government has included millets under NFSA as Dietary diversification is the sustainable long-term solution to combat anemia and micronutrient deficiencies.
- PM recently launched 35 crop varieties with higher nutrient-content to combat malnutrition.
- Under POSHAN 2.0, MoWCD has urged all Aspirational Districts to establish poshan vatika or nutri-garden to promote locally grown nutritious food.

- Ministry of Health in 2013 launched “**National Iron Plus Initiative**”.
- Iron and Folic Acid Supplementation and Deworming for improving the haemoglobin levels were undertaken.
- **National Nutritional Anemia Control Program** aims at decreasing the incidence of anemia by promoting regular consumption of iron rich foods, providing iron and folate tablets and treatment.
- To tackle the problem of anemia due to malaria, Long Lasting Insecticide Nets and Insecticide Treated Bed Nets are being distributed.
- **Anemia Mukh Bharat (AMB)** focuses on reducing anemia amongst pregnant women (from 50% in 2016 to 32% by 2022).
- The **6x6x6 strategy** under AMB implies six age groups, six interventions and six institutional mechanisms in reducing the incidence of anemia.



- In **ICDS**, iron and folic acid tablets and megadose of vitamin A are distributed to prevent iron deficiency anaemia and xerophthalmia respectively.
- 184 High Priority Districts have been prioritized for Reproductive Maternal Newborn Child Health+ Adolescent (**RMNCH+A**) interventions for achieving improved maternal and child health outcomes.

A new study says regular consumption of millets can improve hemoglobin and serum ferritin levels and reduce iron deficiency anemia.

References

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