

GOVERNMENT OF INDIA  
MINISTRY OF CONSUMER AFFAIRS, FOOD & PUBLIC DISTRIBUTION  
DEPARTMENT OF FOOD AND PUBLIC DISTRIBUTION

**LOK SABHA**  
UNSTARRED QUESTION NO.1555  
TO BE ANSWERED ON 4<sup>TH</sup> DECEMBER, 2024

**FORTIFIED RICE**

1555. SHRI G KUMAR NAIK:

Will the Minister of CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION उपभोक्ता मामले, खाद्य और सार्वजनिक वितरण मंत्री be pleased to state:

- (a) whether any studies have been conducted to assess the nutritional impact of fortified rice distribution after implementing Phase I and Phase II of the initiative and if so, the key findings thereof;
- (b) the rationale behind prioritizing rice fortification to address nutritional deficiencies and whether alternative nutritious food options were considered before the scheme's introduction;
- (c) whether States were consulted before implementing the rice fortification scheme and if so, the details of consultations held and inputs received from the States;
- (d) whether any pilot studies or evaluations were conducted comparing fortified rice with other nutritional interventions and if so, the outcomes of these assessments; and
- (e) the criteria used to select fortified rice over other potential dietary interventions within the Targeted Public Distribution System (TPDS) and welfare schemes?

**A N S W E R**  
MINISTER OF STATE FOR MINISTRY OF CONSUMER AFFAIRS,  
FOOD & PUBLIC DISTRIBUTION  
(SHRIMATI NIMUBEN JAYANTIBHAI BAMBHANIYA)

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(a): NITI Aayog has constituted a Core Committee to monitor the impact evaluation of the Rice Fortification Initiative. NITI Aayog and the Indian Council of Medical Research-National Institute of Nutrition (ICMR-NIN) have taken up study in six districts in six different states of the country to evaluate the impacts of iron fortified rice supplied through the Public Distribution Systems in India. The study includes all age groups, employs a time-series, repeat cross-sectional design and covers approximately 10,000 individuals.

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Additionally, the State Government of Uttar Pradesh, with the support from the United Nations World Food Programme, conducted an efficacy and effectiveness study on rice fortification in Chandauli district (UP). The study showed a significant 7.5 % point reduction in anemia prevalence among children (6-59 months) after the introduction of rice fortification, with rates decreasing from 65.7% (baseline: National Family Health Survey-5, Jan. 2021) to 58.2% (endline: July-August 2023).

(b): The Government of India allocates three foodgrains namely; rice, wheat and coarse-grains under Targeted Public Distribution System and Other Welfare Schemes ; with rice being the highest in quantity allocated to States/UTs.

Rice is an ideal vehicle for supplying micronutrients in India, as 65% of the population consumes it as a staple food. The rice supply chain is already well-established, with procured paddy being milled at rice mills as part of the natural supply chain process where the fortificants are blended to make fortified rice.

(c): A meeting was held with NITI Aayog, Ministry of Women & Child Development, Food Safety and Standards Authority of India and Ministry of Health and Family Welfare wherein it was decided that food fortification in rice be rolled out covering one district per state from March, 2019. Accordingly, the Government of India approved the Centrally Sponsored Pilot Scheme on "Fortification of Rice & its Distribution under the Public Distribution System" for a period of 3 years, beginning in 2019-20. Eleven states implemented the pilot and distributed the fortified rice in their identified districts.

Consultations were held with all States/UTs and concerned stakeholders before scaling up the Rice Fortification Initiative (2021-24) and for its further continuation till December, 2028. Ministries/ Departments concerned with health outcomes and States/UTs have supported the initiative.

(d): Food fortification is a globally recognized intervention to reduce the burden of micronutrient deficiencies. It is one of the interventions under the strategy of Anemia mukt Bharat and the Rice Fortification Initiative is a complementary strategy aimed at reducing the prevalence of anemia.

Based on available evidence from a Cochrane review, which analyzed data from seven randomized controlled trials involving 1,634 participants, the risk of anemia was reduced by 28% among individuals consuming fortified rice. The white paper titled "Efficacy and Safety of Iron-Fortified Rice in India," published by ICMR-NIN in 2023, indicates that rice fortification can serve as a midterm strategy for controlling iron deficiency.

(e): As answered in reply to part (b).

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