

# **Wheat Flour Fortification – Experiences and Challenges**



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# Wheat Production and Consumption

- Wheat flour ideal carrier of fortificants – globally accepted as the effective strategy to combat micronutrient malnutrition.
- Today more than 86 countries support fortification of milled grains including wheat.
- 9 Countries voluntarily fortify 50% of the milled grains – Afganistan, Congo, Katar, Nambia and United Arab Emirates etc.
- It is estimated that 28.1% of global wheat milled industrially is fortified atleast with Iron and Folic Acid
- India produces 90 plus million tonnes of wheat on an average.
- National Consumption pegged at 80-82 million tonnes per annum.
- Wheat dominates the consumption pattern.
- Consumed in Various forms.
- Available thru different channels - Open Market, Govt. run Welfare Schemes and branded commercial market.



# Flour Milling Industry – A Profile

- Flour Milling Industry –Processing almost 25-28% of the national wheat production.
- Production pattern changed gradually - focusing on direct consumption also.
- Initially major milling production included Maida, Sooji & Atta apart from Bran.
- Flour Mills produce 75% of fortifiable products including high extraction Atta to the tune of 20-25% of the milled products.



# Flour Mills – Better Fortification

- Wheat Flour – the ideal carrier of fortificants – regular/frequent consumption irrespective of food inflation.
- Well Established technology and equipment.
- Better Quality Control and Monitoring.
- Easy to Regulate.
- Hygienic and healthy production.
- Bulk production – Cost Effective



# Wheat Flour Fortification – an Experience

- **WFF project in Technical/Financial Collaboration with MI and GAIN.**
- **Provided Technical Know-how.**
- **Equipment and cost of Premix on Sliding basis. Supported SMC Activities to create awareness and promote consumption of fortified foods.**
- **M.P. though had an humble beginning producing 2000 M.T. per month reached 22000 tonnes towards the end of the Project.**
- **Major fortificants used – Iron (EDTA 55 ppm), Folic Acid (1.3 ppm), Vitamin B12 (0.01 ppm) & Vitamin A (1.5 ppm)**



# Winning Experiences

- Pilot project, Darjeeling in West Bengal – commendable results, running successfully in 29 districts today (in PDS).
- Gujarat – launched in January 2006 (open market) April 2006 AAY, Ahmedabad.  
2011 – commendable results, malnutrition reduced in children to 38.77% from 70.69% in 2007

# Bhagidari – A Successful Joint Effort



- Fortified Wheat Flour launched in 2009 – a joint effort of Delhi Civil Supplies and Delhi Roller Flour Mills Association.
- 8000 M.T. fortified wheat flour sold through 400 outlets of Kendriya Bhandar, NCCF, NAFED & MLA Points.
- Well accepted – enjoyed a specific market.

# Challenges

- **Industry – Additional cost.**
- **Quality Implication – Nutrient Premixes.**
- **Absence of leading brands.**
- **Apprehensions on product performance.**
- **Lack of information and knowledge in consumers.**
- **Advocacy leading to deliberate demand.**





# Way Forward

- **Extensive advocacy campaign.**
- **Expanding the scope of fortification.**
- **Demand generation for wheat based food products.**
- **Fortification for Govt run Welfare Schemes – Mandatory.**
- **Motivating Voluntary Fortification both for Wheat Flour & Maida**

