

L'Initiative
pour les
micronutriments



The
Micronutrient
Initiative

OVERCOMING HIDDEN HUNGER THROUGH DOUBLE FORTIFIED SALT An Initiative to Improve Health and Productivity in Developing Nations

The objective of launching the global double fortified salt (DFS) initiative is to make a sizable dent in the world's most prevalent form of malnutrition with the expanded use of a new, extremely low-cost technology that finally pulls down the barriers to adding iron to iodized salt. This initiative takes the first steps to protect 1.5 billion people in the thirty countries with the largest deficient populations.

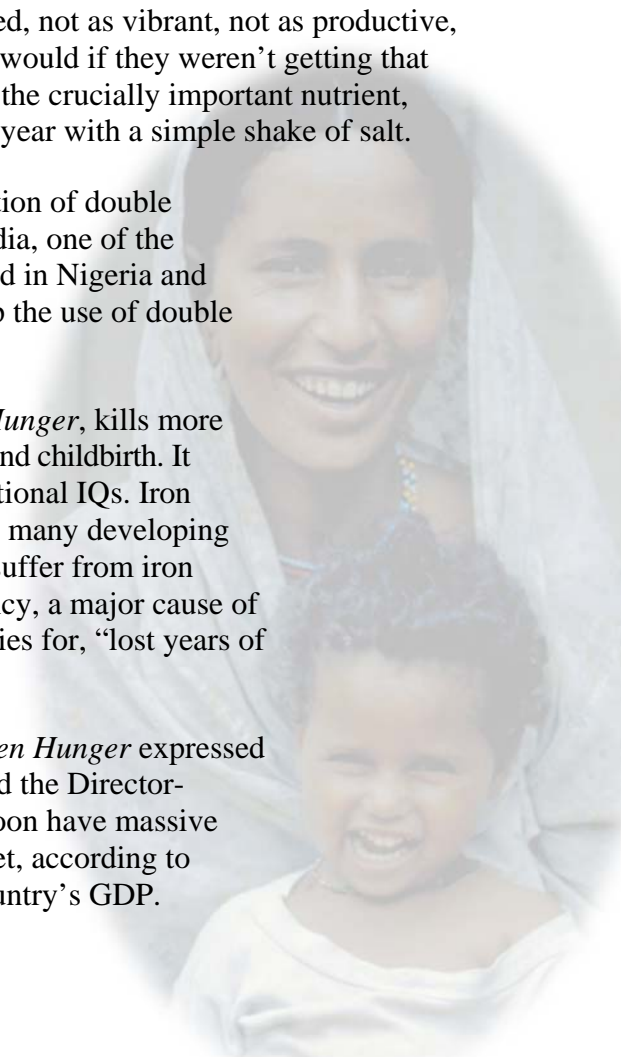
Every day in southern India, three million school children are consuming a new product that could change the world.

These are children who otherwise will grow up not as educated, not as vibrant, not as productive, not as healthy, and not as likely to survive childbirth, as they would if they weren't getting that product. The difference is that they are no longer deficient in the crucially important nutrient, iron. And now they are getting that iron, for under 20 cents a year with a simple shake of salt.

With support from The Micronutrient Initiative (MI), production of double fortified salt (with iodine and iron) is already on stream in India, one of the world's most iron-deficient countries, and has been introduced in Nigeria and Kenya. Over the next five years, this project seeks to scale-up the use of double fortified salt in the most deficient developing countries.

Each year vitamin and mineral deficiency, known as *Hidden Hunger*, kills more than a million children and 50,000 women during pregnancy and childbirth. It impairs hundreds of millions of growing minds and lowers national IQs. Iron deficiency is the most common form of *Hidden Hunger* and in many developing countries, more than half of women and pre-school children suffer from iron deficiency. The World Health Organization lists iron deficiency, a major cause of anemia, as one of the top 10 risk factors in developing countries for, "lost years of healthy life."

Given the recent interest in food fortification to combat *Hidden Hunger* expressed by India's President, Prime Minister, Secretary of Cabinet and the Director-General of India's Council of Medical Research, this could soon have massive expansion in the country. The addition of iron alone to the diet, according to World Bank estimates, could add \$53 billion a year to the country's GDP.



A new strategy is ready

Previously, chemical problems prevented the use of salt to deliver iron along with iodine. Now award-winning research undertaken by MI and The University of Toronto with financial support from The Canadian International Development Agency and The World Bank has resulted in the creation of a stable encapsulated iron premix that can be easily added to iodized salt. An independent review concluded that the resulting double fortified salt (DFS) has acceptable taste, colour and texture and is a highly cost-effective means of addressing iron deficiency anemia.

By using the capacity and delivery systems already established during the push for universal salt iodization, DFS will be produced and distributed through commercial channels and also through public programs to reach economically weaker sections of the population.

Over the next 5 years, this initiative will help 250 million people in 5 countries. Successful production and distribution in these first countries (India, Indonesia, Bangladesh, Kenya and Nigeria) is expected to stimulate interest in DFS in other developing nations with high iron deficiency anemia and to serve as a model for ongoing expansion into new markets.

Achieving the Millennium Development Goals

Because iron deficiency anemia affects women and children disproportionately, widespread fortification of salt with iron and iodine will contribute significantly to the achievement of key development goals related to school performance, reduced maternal and child mortality and promoting gender equality. The development of the encapsulated iron premix for addition to iodized salt finally presents a significant opportunity to establish a consistent iron intake for vulnerable populations, especially women and children.

Justification for a new, complementary intervention and expected impact

The World Bank has called for increased investment in nutrition interventions because they have high benefit-cost ratios and can drive economic growth. Food fortification in particular is one of the most cost-effective and sustainable ways of improving nutrition due to its extended reach and suitability for private-public partnerships. The pervasive use of salt around the world makes it a natural vehicle for fortification. In fact, widespread salt iodization has already eliminated iodine deficiency disorder (IDD) from the list of the top 20 contributors to the global burden of disease. Despite the success of iron supplementation programs targeting pregnant women, iron deficiency remains in the top 10. There is only now hope that this discouraging picture can be changed with a low-cost, large-scale solution to population-wide iron deficiency.

Conservative estimates indicate this investment will prevent more than 43,000 perinatal deaths and improve productivity by \$293 million per year by the end of the project period with

Investments in nutrition programming have high benefit-cost ratios and they help drive economic growth.

“The control of vitamin and mineral deficiencies is one of the most extraordinary development-related scientific advances of recent years. Probably no other technology available today offers as large an opportunity to improve lives and accelerate development at such a low cost and in such a short time.”

Repositioning Nutrition as Central to Development: A Strategy for Large-Scale Action. 2005. *The World Bank*

The returns of investing in micronutrient programs, among a list of 17 possible development investments, are second only to those of fighting HIV/AIDS. It is ranked above trade liberalization, malaria, and water and sanitation.

The May 2004 Copenhagen Consensus of eminent economists

“Fortifying foods with basic vitamins and minerals is both essential and affordable.”

Bill Gates, co-founder, Bill and Melinda Gates Foundation

additional benefits to be realized in subsequent years. The medium term benefit of this investment is its power to catalyze a market-driven expansion of DFS to meet the needs of 1.5 billion vulnerable people in 30 of the countries suffering the highest burden of deficiency. In addition to establishing production capacity and demand and enabling public distribution for poorer populations at a fraction of the cost of other public health interventions, this project will provide the economies of scale required to stimulate sustained demand, cost-reduction and further innovation into new markets.

Complementarities and Partnerships

MI will build on its existing relationships with premix manufacturers, salt producers, governments, international agencies and civil society organizations to successfully facilitate this project. MI, in many of its national salt iodization support programs, is actively encouraging the modernization of salt manufacturing facilities to increase the quality and commercial value of the salt produced, which will also make it suitable for double fortification.

National companies that produce and distribute table and cooking salt will be the main vehicle for DFS production and marketing. Their commercial networks will be used to introduce and promote DFS. MI has also engaged in discussions with various multinational corporations, namely Unilever, Akzo Nobel (Salt), Morton Salt and others and DFS is gaining recognition as a commercial opportunity to market a high value salt. Since iron deficiency is prevalent across all income levels, iron supplied through high value salt will also reach deficient populations. MI's own priority, however, is to make the product accessible and affordable to low income groups in appropriately selected countries.

Since April 2005, the Tamil Nadu Salt Corporation has purchased the MI premix formulation for the production of 300 tons of DFS per month for midday meal programs reaching 3 million children in schools daily across the state. Other companies have also approached MI to supply public programs and low-income markets in other states and neighboring countries. This initiative will focus on reaching as many deficient people as possible with similarly diversified partnerships in the private and public sectors.

For programs where a DFS intervention is implemented through a public distribution channel, school feeding program or emergency intervention, MI will partner with the local/national governments and agencies such as UNICEF, WFP and UNHCR who are actively involved in supporting these interventions. The MI will also coordinate with other agencies on demand generation and the establishment of a supportive policy environment.

Project Management and Budget

MI will act as the project implementing agency and will coordinate technical and managerial support as well as commodities procurement services. Project activities will be complementary to, and benefit from, MI's broader initiative to improve salt iodization among producers in Asia and Africa.

With an investment of approximately 10 cents per beneficiary over the first 5 years, the estimated budget for this initiative is \$25 million.

Please join the DFS sponsor group.

For more information about MI and this initiative, contact

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