Policy Brief 5: Food security to Nutrition Security: How should Bangladesh embrace the future?

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In association with



Department of Economics





This policy brief summarizes the discussion and recommendations from the webinar titled 'Policy Brief 5: Food security to Nutrition Security: How should Bangladesh embrace the future?' The webinar is part of the integrated development dialogue campaign 'Bangladesh Miracle' organized by Innovision Consulting in association with The Department of Economics North South University and The Financial Express along with mPower as ICT partner and Windmill Advertising, Printagraphy, Sarabangla, Colors Fm 101.6 and Young Economists' Forum (YEF) as event partners. GAIN is the exclusive thematic partner for nutrition for Bangladesh Miracle.

CONTEXT

Innovision Consulting Private Limited and the Global Alliance for Improved Nutrition (GAIN) jointly organized the fourth webinar of the "Bangladesh Miracle" campaign on 29th July, 2021 on Nutrition Security of Bangladesh in collaboration with The Financial Express, and the Department of Economics, North South University. This campaign mainly focuses on the factors contributing to Bangladesh's success in different issues over the last 50 years. This webinar was also a part of United Nations Food Systems Summit 2021 Independent Dialogues.

The other partners of the Bangladesh Miracle campaign are Windmill Advertising, NextgenEdu, CARE Bangladesh, ICCO Bangladesh, Wateraid Bangladesh, BIID, Simprints Technology, Colors 101.6 FM, YEF (Young Economist Forum) from North South University, Pathao, and Printagraphy. mPower is the ICT partner of the campaign.

The central theme of the webinar was "Achieving Nutritional Security for Bangladesh," and it was an appropriate one. Bangladesh has made strides in the nutrition sector since the liberation war of 1971. With continued development, there is undoubtedly more to come in the future. The relevant discussion and recommendations will be incorporated in the country's UN FSS report as part of independent dialogue.

The discussion focused on achieving nutrition security for Bangladesh in the near future from a national perspective and how to contribute to the United Nations Food Systems Summit 2021, highlighting the importance and opportunities to increase support for staple food fortification to ensure nutrition security.

Mandira Guha Neogi, Senior Policy Associate, Global Alliance for Improved Nutrition (GAIN)

Mandira Guha Neogi, Senior Policy Associate, Global Alliance for Improved Nutrition (GAIN) Bangladesh moderated the webinar. Dr. Rudaba Khondker, Country Director, Global Alliance for Improved Nutrition (GAIN), Bangladesh, and Rubaiyath Sarwar, Managing Director & Lead Consultant, Innovision Consulting Private Ltd., presented the welcome address in the webinar. Penjani Mkambula, Global Cluster Lead, Large-Scale Food Fortification and Biofortification, Global Alliance for Improved Nutrition (GAIN), UK, delivered the keynote speech.

The commended panelists included: Dr. Md. Abdul Alim, Member, Bangladesh Food Safety Authority (BFSA), Ministry of Food and Professor, Department Food Technology and Rural Industries, of Bangladesh Agricultural University, Mymensingh; Akhil Tarafder, General Ranjan Manager, Bangladesh Small and Cottage Industries Corporation (BSCIC); Dr. S M Mustafizur Rahman, Line Director, National Nutrition Services (NNS), Institute of Public Health Nutrition (IPHN), Ministry of Health and Family Welfare; Rezaul Karim, Head of Programme, World Food Programme (WFP), Bangladesh; Dr. Anika Tahsin Khan, Team Lead, Adolescent Project, Innovision Consulting Private Ltd; Zaki Haider, Director of Innovation, mPower Social Enterprises Ltd; Dr. Sheikh Shahed Rahman, Chief of Party, Suchana, Child Poverty Sector, Save the Children, Bangladesh, Secretary, Civil Alliance for Scaling Up Nutrition (CSA for SUN); Dr. Ahmed Hossain, Professor, Public Health, Director, Global Health Institute, North South University; Eddie Bearnot, Managing Director, Care Nutrition Ltd.

CRITICAL SUCCESSES

Successful implementation of food fortification programs: Around the world, at present, there are laws imposed by at least 87 countries where you must fortify wheat, maize, or rice. Bangladesh is ensuring proper distribution of nutrients through fortified salt and edible oil fortification across the country. Wheat flour is the medium of delivering vitamin A, iron, zinc, B1, B2, niacin and folic acid to the malnourished children, edible oil is widely used for delivering vitamin A to the general population, and rice fortification was introduced in 2013 for delivering vitamin A, B1, and B12, and Folic Acid, Iron and Zinc to the general population.

Self-sufficiency in food production: Bangladesh produced 35.85 million metric tons of its staple, rice in the year 2019-2020, making the country the fourth largest producer of rice in the world, after China, India, and Indonesia. The country has achieved self-sufficiency in fish, rice, vegetable, and meat production in the last decade, with the help of favourable government policies and mass commercial production. In the fiscal year 2018-2019, the country had a surplus supply of fish, meat, rice, and vegetables.

Formulation of Proactive Policies: The proactive policies of the Bangladesh government have a long term effect on the population's nutrient intake. Policy formulated for prevention and control of micronutrient deficiencies from 2015-2024 is expected to increase the quality of health of the country's people. Other initiatives from the government include the investment plan for nutrition-sensitive food systems, and the second plan of action for nutrition.

The initiatives from the government of Bangladesh are undertaken adhering to the recommended global interventions for dietary deficiencies, food fortification (edible oil, rice fortification, salt iodization), biofortification (zinc rice), and supplementation (Iron folic acid, , and Vitamin-A). Decrease in underweight population and child mortality rates: As the country moves towards ensuring food security for its people, the rate of underweight population has decreased rapidly, from 43% in 2004 to 22% in 2018. Deaths of children under the age of five have decreased by 63% over the last two decades. Experts think that change in breast feeding patterns on children has contributed to this achievement, with an increase of 10.99% in exclusive breastfeeding between 2013-2019.

Macronutrient Powder (MNP) and Rice Fortification programs ensuring Zinc supplementation: The areabased program for MNP supplementation by the government is eradicating zinc deficiency among children aged 6 to 59 months. The children are given 5 mg zinc as a part of this program.

Rice fortification also contains zinc, and this program is catering to the poorest of the poor groups of the population; rice is distributed through Vulnerable Group Feed (VGF) and Vulnerable Group Development (VGD) programs.

Micronutrient Powder (MNP) supplementation for young children: To prevent anemia and other micronutrient deficiencies in children aged between 6-23 month and 24-59 months, The National Strategy for Prevention and Control of Anemia has recommended the use of MNP1 in their diet. Where anaemia of children under the age of 2-5 years is 20% of more, one pack of MNP which contains 300 µg of retinol (vitamin A. 12.5 mg of elemental iron (preferably as encapsulated ferrous fumarate),) and 5 mg of elemental zinc (preferably as zinc gluconate) is to be taken daily.

The program has been distributing MNP to 18 Upazilas in seven districts since 2011; the government has expanded the program to several more upalizas.

^{[1]&}quot;<u>Wheat Flour Fortification Program in Bangladesh</u>" (The USAID Micronutrient Program, October 2003).

^[2]Reaz Ahmad, "Bangladesh Introduces Micronutrient-Enriched Fortified Rice First Time in OMS," Dhakatribune, August 10, 2020.

^[3] M. Shahbandeh, "Top Countries Based on Production of Milled Rice," Statista, April 23, 2021,

^[4] Tribune Desk, "Report: Bangladesh Cuts Child Death Rate by 63% over 20 Years," Dhakatribune, June 7, 2019.[

^{5]&}quot;<u>A Nutritious Bangladesh to Ensure a Sustainable Future</u>," LightCastle Partners, August 20, 2020,

^{[6]&}quot;National Strategy on Prevention and Control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and control of Micronutrient Deficiencies, Bangladesh (2015-2024)," National strategy on prevention and contro

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Iron supplementation programme for adolescent girls and pregnant women: The government has distributed Iron and Folic Acid (IFA) tablets to adolescent girl students of government and nongovernment schools of selected areas outside Dhaka city weekly as a part of a program run between the years 2005-2010. At present, the National Nutrition Services (NNS) program is recommending weekly IFA supplementation, which includes two tablets each having 60 mg elemental iron and 400 µg folic acid, for adolescent girls.

Pregnant women under the IFA supplementation programme are provided with IFA supplement, which includes daily dose of 60mg elemental iron and 400 μ g folic acid during the period of pregnancy and until 90 days after delivery.

CHALLENGES

Lack of coordination and fragmented biofortification: Several ministries are involved in the food fortification programs, but not all are in tune. There's a lack of coordination among the ministries, which eventually results in unsuccessful programs.

On the other hand, although there is existence of biofortification in Bangladesh, it is highly fragmented. Only a fraction of smallholder farmers are producing biofortified crops. A lack of traceability between fortified and biofortified varieties is also concerning.

Healthy diet is too expensive for the majority of people: We live in a world where around 3 billion people cannot afford a healthy diet, i.e., a diet that's rich in micronutrients. Therefore, people tend to go for diets rich in staple foods. These foods might be high in energy, but they are inferior sources of Vitamins and micronutrients.

In Bangladesh, one in eight people cannot afford a nutritious diet for themselves and their family.

The issue of climate change: Based on the current projections, the future of nutrition is not looking good. When we take the climate change issue into account, there will be a reduction in productivity in some of the world's major countries, particularly the countries in and around the equator. Some of the productivity in those countries may reduce by as much as 50%, which will be a significant blow.

On the other hand, other countries might even see a rise in productivity. So the situation of food and nutrition is expected to worsen collectively.

Mitigation of the triple burden of nutrition: Overweight, undernutrition (underweight, stunting and wasting), and micronutrient deficiencies are challenging Bangladesh on a large scale. While the country has rolled out plans to combat undernutrition and micronutrient deficiencies, the new problem of obesity is bound to cripple the nutrition sector. Obesity has increased by 10% from 1980 to 2013, giving rise to diseases like diabetes and hypertension. Overcoming nutrient deficiencies: Although Bangladesh is using food fortification as a means of delivering micronutrients, the programs are not ensuring proper intake of nutrients for all. According to experts, the amount of zinc in wheat might reduce by 20% by 2050, and the amount of iron in rice might reduce by 5% by the same year, naturally. Around 2 billion people in the world are suffering from micronutrient deficiencies, and are at risk of incurable diseases; Vitamin-A deficiency can lead to blindness, and lack of iodine may result in poor brain development.

As the natural source of nutrients are decreasing, the overall population requires special support in their food intake system for eradicating nutritional deficiencies.

High level of Anemia and Zinc Deficiency in South Asia: In 2015-2016, over half of the children in South Asia were anemic. Along with that, approximately 50% of the women in their reproductive age are anemic in South Asia. In Bangladesh, at least half of the children under five have zinc deficiencies. Around 20% of adolescents have vitamin-A deficiencies, and many women have zinc deficiency.

Challenge in implementation of policies: Although there are robust policies in place, many of them are not implemented correctly. For example, with edible oil fortification, 95% of all the packaged edible oil in factories are fortified. But, in the market, 70% of the edible oil sold are loose, and they are kept under open air, so the Vitamin A in the oil evaporates. In many cases, the drums where loose oil is kept are not cleaned properly, damaging the nutrient content of the oil.

Due to similar market challenges, policies concerning nutrition are not being implemented properly in Bangladesh.

Policy Recommendations:

Our esteemed panelists provided a few insightful and fascinating policy recommendations for future food security and nutrition steps.

Their thoughts are gathered and compiled below:

Biofortification and large-scale fortification: While dietary diversification, supplementation, micronutrient powders, and disease control are essential for micronutrient health, it is also important to focus on biofortification and large scale fortification if Bangladesh genuinely wants to negate micronutrient deficiencies.

Biofortification includes focusing on a selection of crops that are high in micronutrients and breeding those.

Promoting salt iodization: The most advanced vehicle for fortification is salt iodization. At least 145 countries in the world practice salt iodization, of which 124 countries made it mandatory. Globally, 88% of the world's population has access to iodized salt.

Scaling up smallholder farmers: There's a huge need to scale up rice production and commercialization of biofortified rice with zinc. Although the practice is existent in Bangladesh, it requires expansion.

Amendment of Nutrient Specific laws: It is recommended to make it mandatory to include Vitamin-D in edible oil fortification; this might eventually help in reducing Vitamin D deficiency in Bangladesh.

The speakers also recommended the formulation of policies making Investments in nutrition mandatory.

Long-term public food distribution plan: The pandemic will play a massive role in setting the improvements back a few years. So, the government has to reach out to the most vulnerable population. A new group of "poor people" has arrived in the pandemic, further depriving people from nutrient filled diets.

There is also a need to improve the distribution of resources. There have been improvements in the short-and long-term stimulus package programs for impoverished people, but in many cases, the stimulus packages took a long time to reach these people. Thus a better and quicker distribution channel is necessary Empowering adolescents: The calorie needs for adolescents is higher when compared to children and adults. Adolescents need to be approached and empowered socially. It should be ensured that the impacts are achieved through public, private, NGO, and community-based agencies with direct mandates to work with adolescents. In recent times, an innovative approach is also crucial.

It's essential to focus on making adolescents the change-makers. We have to reach the adolescents through multiple entry points and include activities and tools that promote leadership. Creative activities that will engage them should be included. Other topics like washing, menstrual hygiene, personal hygiene, mental health should also be focused on along with nutrition programs.

Actions to address anaemia, folate, and zinc deficiencies: The concerned deficiencies will not be eradicated without proper actions. In the case of Bangladesh, the speakers recommended introducing wheat flour fortification. There are rice fortification standards in place in social safety net programs and the open market, but scaling them up is an important requirement for fighting anaemia, folate, and zinc deficiencies.

Strengthening governance for fortified foods: When it comes to governance, given the fragmentation and growth of various fortified varieties, there should be a national fortification unit (NFU); this may overcome the lack of coordination among the ministries, which is very apparent in terms of fortification programs.

Although there is a new law for salt iodization, it's essential to make the law operational. Given the challenges around the government's capacity and resources to monitor, the government should look towards technologies that can help them monitor the situations remotely. Integration of digital tools is indispensable at this point.



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