



PHILIPPINES

A Recipe for Success:

Implementing Iron-Fortified Rice in the Philippines

Food and nutrition security in the Philippines, which has generally been improving in recent decades, worsened during the COVID-19 pandemic. The [Global Food Security Index 2022](#) ranked the Philippines sixty-seventh out of 112 countries, citing the Philippines' limited availability of nutritious food and unsustainable production methods, among other concerns.

Nearly 27 per cent of children under five are stunted – a figure that rises to 45 per cent in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). Iron deficiency anaemia, which has lowered significantly over the past 25 years, nevertheless remains prevalent: 43 per cent of children aged 6–12 months are severely affected by the condition.

Food fortification is the addition of nutrients normally deficient in the diet to food products. The fortification of rice with iron plays an important role in addressing iron deficiency anaemia and malnutrition in many regions around the world. In the Philippines, a long-time advocate of food fortification, iron-fortified rice (IFR) was mandated



World Food Programme

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by the [Philippine Food Fortification Program](#) in 2000. Mandatory rice fortification has since been reinforced by the [2017–2022 Philippine Plan of Action for Nutrition](#), which supports line agencies and local government units to promote and distribute IFR and mandates its integration into dietary supplementation programmes and family food packs.

Despite these efforts, the implementation of mandatory rice fortification in the Philippines remains challenging. The World Food Programme (WFP), as part of its broader effort to address malnutrition in the Philippines, began working with the Government to promote IFR in 2018. This case study presents insights and lessons learned from an evaluation of these efforts. By documenting these findings, this case study aims to inform fortification efforts in other countries and contribute to the global evidence base on iron fortification as a strategy to combat malnutrition.



1 The challenge of promoting IFR

IFR implementation has been hindered by weak supply chains, poor communication and marketing campaigns, a lack of coordination, competing priorities and low commitment among agencies and other implementors. The promotion of IFR has been further hampered by the 2019 [Rice Tariffication Law](#), which ended limits on rice importation, leading to a surge in imports and a drop in the price of unfortified rice. The law also removed a requirement for the National Food Authority (NFA) to monitor compliance with the IFR mandate.

These issues were compounded by negative public perceptions of IFR. Such views were partly due to its limited availability and higher cost, with a standard bag of IFR typically costing 4 pesos more than unfortified rice. There are also lingering memories of earlier forms of IFR from the 1990s, which relied on a coating technology that resulted in a grain that looked, smelled and tasted different from traditional rice.

Figure 1: The rice fortification journey in the Philippines.

1	2	3	4	5	6
Mandate iron-fortified rice (IFR) in national law.	Develop the Philippine Plan of Action for Nutrition. Support local government to promote IFR.	Pilot the use of IFR in a school feeding programme. Create a strong case for investment in locally sourced IFR.	Use social and behaviour change communication to counter negative views of IFR.	Advocate for adoption and prioritization of IFR by local government and NGOs.	Explore how the private sector can fill funding gaps for in-country IFR production.
Ongoing advocacy →					



2 Pilots build an appetite for IFR uptake

WFP first began promoting IFR in the Philippines in 2018, when it worked with the Government to successfully pilot a school feeding programme in BARMM that used IFR. This pilot created a strong case for investment in locally sourced IFR in the country and directly resulted in the adoption and promotion of IFR by the NFA, the Ministry of Agriculture, Fisheries and Agrarian Reform, and the Department of Science and Technology – Food and Nutrition Research Institute.

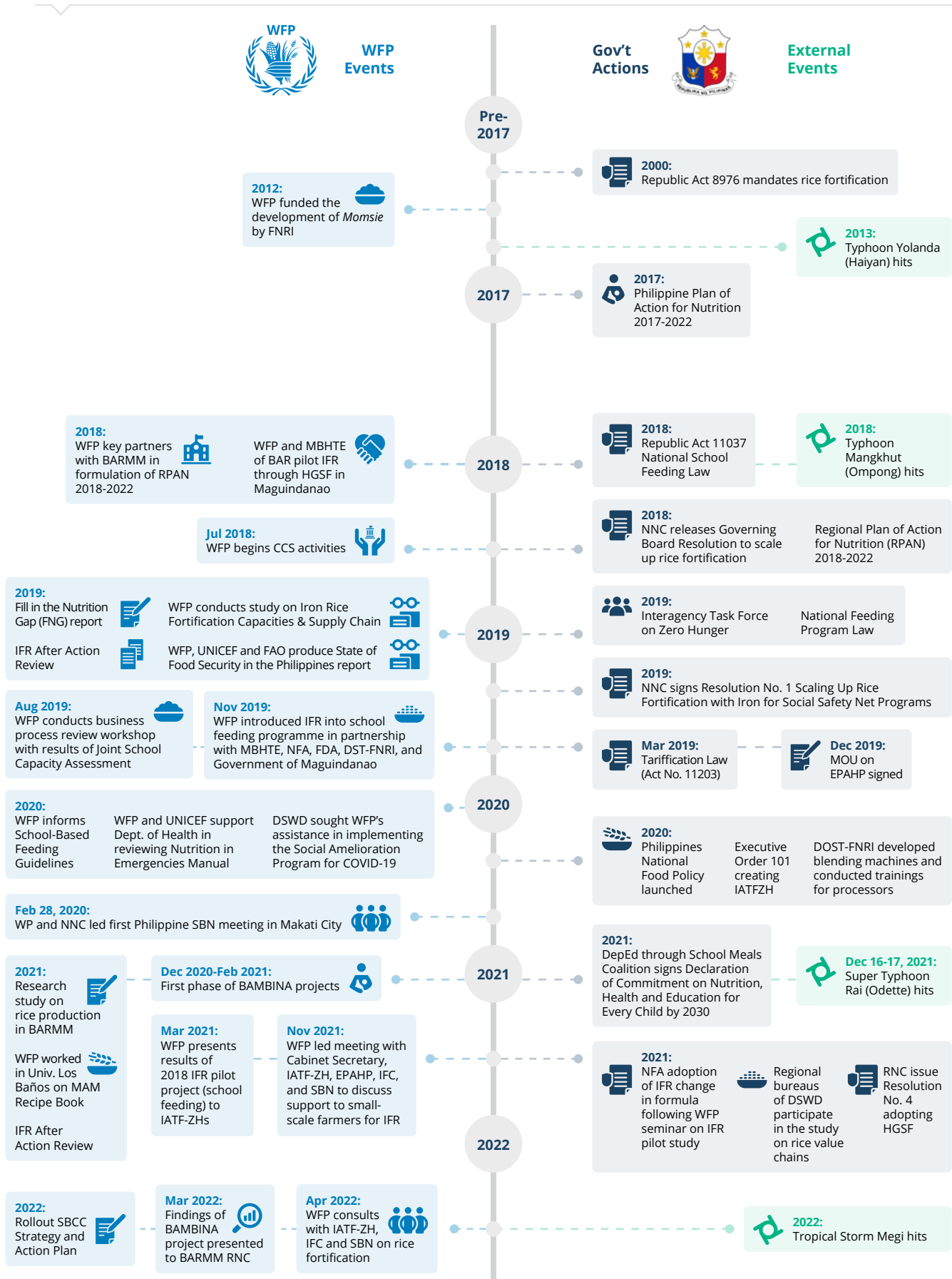
In 2021, after WFP presented the results of the BARMM school feeding pilot to key stakeholders, the NFA adopted IFR as one of its priority programmes. Further policy advocacy and technical support by WFP led the Department of Education to include the use of IFR in school feeding programmes as one of its commitment to the School Meals Coalition, an international initiative of governments and partners.

3 Promoting IFR with evidence gathering and behaviour change communications

The importance of IFR was also emphasized in the 2019 [Fill the Nutrition Gap](#) report. Co-produced by the Government and WFP, with support from UNICEF, it prompted the Government's Interagency Task Force on Zero Hunger to provide directives for the integration of IFR into national dietary supplementation programmes. The report also led the NFA to alter the fortification formulation, improving the rice's colour and taste and changing public perceptions of IFR.

Following on from this, WFP has been exploring the potential of social and behaviour change communication to counter negative views of IFR. For example, WFP has served IFR at major seminars and meetings to demonstrate first-hand that modern fortification technologies no longer detract from the look, taste or smell of rice. For this, WFP drew on insights from its 2019 project, [Better Access of Mothers and Babies on Integrated Nutrition Agenda \(BAMBINA\)](#), which used social and behaviour change communications to conduct surveys, interviews and focus group discussions to uncover perceptions of, and barriers to, nutritious diets.

Figure 2: Timeline of iron-fortified rice promotion in the Philippines (2017–2022).





4 The missing ingredient: maximizing private sector capacity

Adoption of IFR by the private sector remains limited in the Philippines but has the potential to expand greatly. In 2021, at the instigation of WFP, the International Finance Corporation agreed to explore how the private sector can fill gaps in supply chain issues, including the funding of production and blending machinery. Additionally, WFP provided technical guidance for the adoption of IFR as a business initiative by the [Scaling Up Nutrition Business Network Philippines](#). The Scaling Up Nutrition Movement has consistently advocated for IFR, including its production and use by companies in their own facilities.

In 2022, WFP followed up this work by conducting studies which led to the publication of two reports, [Understanding the Rice Value Chain in the Philippines: Defining the Way Forward for Rice Fortification](#) and the [WFP Study on Iron Rice Fortification Capacities, Supply Chain and Campaign Initiatives in the Philippines](#).

Other private sector capacity-strengthening supported by WFP includes a supply chain mapping activity to guide small and medium-sized enterprises and other producers in the supply of IFR, and a technology transfer

programme to increase the number of IFR suppliers. This latter project has seen 10 suppliers establish themselves in the Philippines, particularly in the Luzon. In 2022, WFP also sponsored a food technologist from its Country Office in Bangladesh, which has adopted a progressive national fortification programme, to visit the Philippines. The mission produced practical findings on standards and quality assurance for WFP and rice millers – including millers from whom WFP may purchase IFR for its programmes in BARMM in 2023.





5 Serving up success for the future

As a result of these initiatives, government capacity to enforce mandatory rice fortification in the Philippines is improving. In 2020, for example, the Department of Science and Technology – Food and Nutrition Research Institute developed blending machines, conducted training on rice fortification and registered IFR processors. The following year saw the Department of Social Welfare and Development participate in a study on rice value chains. IFR is now also recognized as a priority by the NFA and several other government bodies.

The 2022 report, [WFP Study on Iron Rice Fortification Capacities](#), found that further measures need to be taken to improve the provision of IFR and reduce anaemia and malnutrition in the country. For example, the price and supply of IFR is not currently sustainable, and there remains no incentivizing packages or policies to produce or buy fortified rice. There is also a need for the agricultural sector to identify which rice varieties are most popular with households and therefore best suited for fortification. WFP can help by supporting further supply mapping exercises and providing more technical assistance on IFR policy.

Rice fortification success factors in brief:

- Creating a platform to align sectors (the Fortification Committee).
- Showing how rice fortification supported national priorities.
- Working with a broad network to ensure continuity through political turnover.
- Implementing pilots to test programmes before scaling up.
- Working directly with communities to deliver tailored social and behaviour change communication approaches.
- Securing champions to advocate for fortification within government.
- Knowing how the law-making process works.
- Investing for the long-term.

This case study was developed under the 2022 Decentralised Evaluation on Country Capacity Strengthening (CCS) Activities in the Philippines. To access the full report [click here](#) or contact wfp.philippines@wfp.org