

SAVING
LIVES
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LIVES



National School Meals Programme in Indonesia

Cost-Benefit Analysis



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Investing in Human Capital for Indonesia

Supporting Child Nutrition and Education

Governments are increasingly interested in expanding their national social protection systems in response to the growing global inequity and the frequency of social shocks. **Globally, school meals programmes are one of the most effective social safety nets**, especially for food-insecure and impoverished households. **School meals have also proven highly efficient in increasing school participation as well as learning outcomes.** They represent a sustainable **investment in human capital** with multiple benefits on education, health, nutrition, social protection, gender equality, and local economies.

SCHOOL MEALS IN INDONESIA

The first countrywide, national school feeding programme was launched in Indonesia in 1997, targeting primary schoolchildren with the objective of improving their health, school attendance, and learning outcomes. As part of the decentralization process, this programme was handed over to local governments in 2011.

From 2012 and 2015, WFP Indonesia in cooperation with local government launched a Local Food-Based School Meals programme (LFBSM) providing a breakfast to more than 30,000 schoolchildren. It led to statistically significant **improvements in students' attendance, concentration when in class, and dietary diversity.**

In 2016, the Ministry of Education and Culture launched the **Nutrition Programme for School Children** (PROGAS), a flagship initiative to increase balanced nutritional intake, improve healthy life behaviours and children's learning abilities. This programme was initially piloted in two provinces and four districts and is progressively being scaled-up. **Currently (in 2018), the programme reaches 100,136 schoolchildren of 632 primary schools in 64**

districts located in 20 different provinces. The programme targets locations with high stunting rates, which also benefit from the stunting prevention programme, in order to create positive synergies in reducing hunger and improving nutrition.

The programme provides a nutritious breakfast three times a week, covering 25% of the recommended daily intake for school-age children, and uses **locally-sourced fresh ingredients** to create positive spill-over effects in the local economy. In addition to delivering **healthy, nutritious meals**, the programme provides **nutrition education** to both school staff and children (including WASH and cooks training), and behaviour change or character building related to clean and healthy life style.

CONTEXT OF THE STUDY

In 2016, the Ministry of Education and Culture with Technical Assistance from WFP agreed to develop an investment case for the National School Meals Programme. This exercise is part of the Systems Approach for Better Education Results (SABER) action plan and will support the government's plans to further scale-up the school feeding programme in the coming years. As the education sector shifts towards a more decentralized approach, this advocacy tool will help local government bodies make informed decisions and support the school feeding programme.

As part of its country capacity strengthening strategy, WFP supported the Ministry of Education **to generate knowledge on school meals and to inform evidence-based policymaking**, thus contributing to the overall advocacy efforts for improved investments in a sustainable, nationally-owned programme.

Key Results from the Cost-Benefit Analysis

ECONOMIC MODEL

The CBA draws upon results from the academic literature such as the Global Burden of Disease, country-specific datasets including Education Management Information System (EMIS) data, and WFP's expertise in school meals, to build an **economic model of the value generated by school meals in a country's economy**. This model was initially developed by WFP and the Boston Consulting Group, in partnership with the World Bank. Through WFP's global partnership with Mastercard, this exercise was rolled out in Indonesia to estimate the impact of school meals on the national economy.

The CBA assesses short- and long-term impacts of school meals using a net present value (NPV) to calculate a benefit-cost ratio (BCR).

COST REVIEW

The total cost of the National School Meals programme in Indonesia, inclusive of contributions made by the local communities, is on average **107 US\$ per child per year**, or 642 US\$ over 6 years. This cost is mainly driven by the cost of food commodities (78% of the total). It also includes the cost of logistics, management, staff and overheads.

BENEFIT DRIVERS



Value Transfer

Providing school meals represents an indirect income transfer for vulnerable households, as it

freed up resources equivalent to the cumulated value of the meals at their local market price. In Indonesia, school meals will improve households' purchasing power by 103.08 US\$ every year, or a total of **619 US\$ per child** over the six-year duration of the programme.



Return on Investment on Saved Assets

As households benefit from the value transfer, they are known to invest a small share of it in productive assets such as livestock, which will generate an additional revenue stream of **485 US\$ per child** over the duration of the programme.



Increased Productivity

School meals provide an incentive for impoverished and food-insecure households to send their children to schools, thus improving inclusiveness and access to education. They also increase attendance rates and reduce drop-outs. Nutritious meals also improve children's cognitive and learning abilities. In accordance with human capital models, a combination of these outcomes can result in better employment opportunities and an increased productivity when children become working adults.

A comparison of EMIS indicators between programme areas with a control group of similar constituencies which do not receive school

meals showed that school meals will **increase School-Life Expectancy by 0.48 year**. This longer education will enable children to be more productive when they become working adults. Using the Rate of Return for Education in Indonesia, children who receive school feeding can expect to earn a higher income throughout their working life, and **the net present value of this additional income is on average 2,384 US\$** created in the Indonesian economy.



Healthier Life

Nutritious school meals will not only increase the time children spend in schools, but also the quality of this time as they address a number of deficiencies, therefore reducing Disability-Adjusted Life Year (DALYs), a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death, and the number of sick days. Schools are also used as a platform to deliver additional health interventions, such as systematic deworming and Water Sanitation and Hygiene (WASH). Overall, school meals will result in a reduction of private and public healthcare

expenditures and **the value created by school meals through improved school health and nutrition is between 456 US\$** per child.



Gender Equality

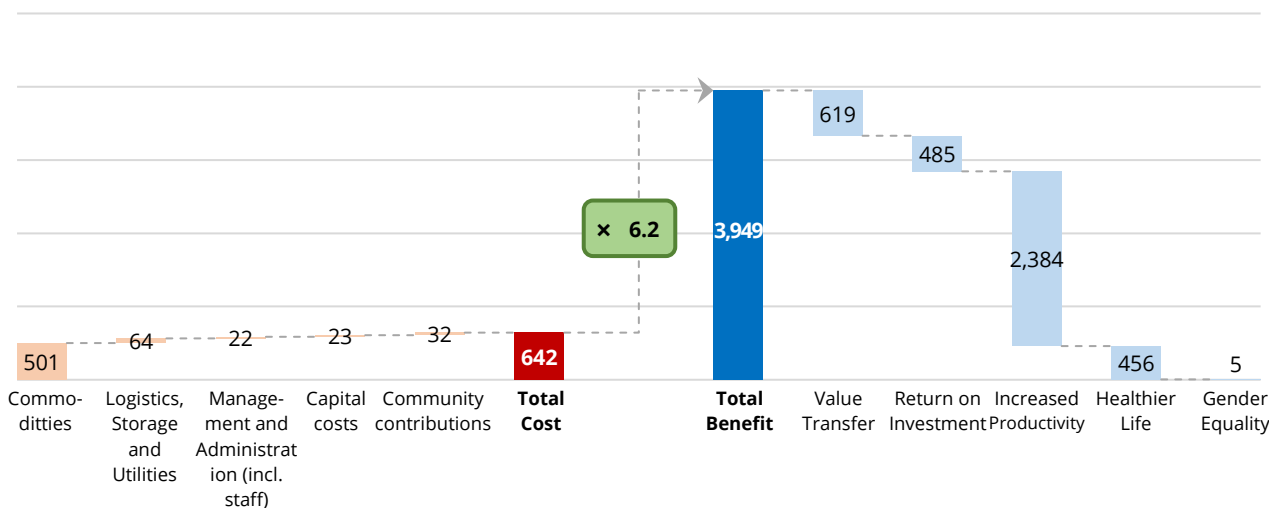
School meals also contribute to narrowing the gender gap, thus increasing access and equity to education and health. Positive externalities associated with gender equality represent a minimum of **5 US\$** per child, while many non-quantifiable improvements in gender equality have been reported in conjunction with the school feeding programme.

OVERVIEW

The total value created by school meals in Indonesia is estimated to represent a net present value of 3,949 US\$ per child, over their lifetime, from the cumulative impact of school meals on SDGs related to human capital. **Every 1 US\$ invested in school meals in Indonesia can result in the creation of up to 6.2 US\$ in the country's economy.**

School Feeding Cost-Benefit Analysis in Indonesia

net present value per beneficiary, US\$



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