



THE EFFECTIVENESS OF THE FREE NUTRITIOUS MEALS (MBG) PROGRAM IN SUPPORTING THE ACHIEVEMENT OF SDG 2 AND SDG 4 IN INDONESIA

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ABSTRACT

Sustainable development identifies adequate nutrition and improved educational quality as two key prerequisites for strengthening human resources. In Indonesia, issues such as stunting, malnutrition, and unequal access to educational services remain challenges that require targeted policy interventions. This study aims to analyze the effectiveness of the Free Nutritious Meals Program (MBG) in supporting the achievement of SDG 2 (Zero Hunger) and SDG 4 (Quality Education). The study employs a descriptive qualitative approach through a literature review using secondary data from government reports, scientific articles, and publications by international organizations. The findings indicate that the MBG has strong potential to expand students' access to nutritious food, improve daily dietary adequacy, and support long-term stunting prevention. The program also contributes to enhancing students' learning readiness, concentration, participation, and school attendance. However, the effectiveness of the MBG is highly dependent on the accuracy of targeting, the quality of distribution, food quality standards, consistency of implementation, and equity across regions. Thus, the MBG is relevant as a cross-sectoral policy instrument in supporting SDG 2 and SDG 4, but its impact will only be optimal if its governance and oversight are strengthened.

Keywords: *Free Nutritious Meals; Public Policy Effectiveness; SDG 2; SDG 4; Stunting*

ABSTRAK

Pembangunan berkelanjutan menempatkan pemenuhan gizi dan peningkatan kualitas pendidikan sebagai dua prasyarat penting dalam penguatan sumber daya manusia. Di Indonesia, persoalan stunting, kekurangan gizi, dan ketimpangan akses layanan pendidikan masih menjadi tantangan yang memerlukan intervensi kebijakan terukur. Penelitian ini bertujuan menganalisis efektivitas Program Makan Bergizi Gratis (MBG) dalam mendukung pencapaian SDGs 2 (*Zero Hunger*) dan SDGs 4 (*Quality Education*). Penelitian menggunakan pendekatan kualitatif deskriptif melalui studi kepustakaan dengan data sekunder dari laporan pemerintah, artikel ilmiah, dan publikasi lembaga internasional. Hasil kajian menunjukkan bahwa MBG memiliki potensi kuat untuk memperluas akses peserta didik terhadap makanan bergizi, memperbaiki kecukupan asupan harian, serta mendukung pencegahan stunting dalam jangka panjang. Program ini juga berkontribusi terhadap peningkatan kesiapan belajar, konsentrasi, partisipasi, dan kehadiran siswa di sekolah. Namun efektivitas MBG sangat

ditentukan oleh ketepatan sasaran, mutu distribusi, standar kualitas makanan, konsistensi implementasi, serta pemerataan antarwilayah. Dengan demikian, MBG relevan sebagai instrumen kebijakan lintas sektor dalam mendukung SDGs 2 dan SDGs 4, tetapi dampaknya baru optimal apabila tata kelola dan pengawasannya diperkuat sehingga dapat berkelanjutan.

Kata Kunci: Makan Bergizi Gratis; Efektivitas Kebijakan Publik; SDGs 2; SDGs 4; Stunting

INTRODUCTION

Sustainable development places the improvement of human resource quality as a fundamental basis for long-term social and economic growth. Within the Sustainable Development Goals (SDGs) framework, nutritional fulfilment and quality education occupy strategic positions because they mutually reinforce one another. SDG 2 emphasises the elimination of hunger and the improvement of nutritional status, while SDG 4 focuses on inclusive, equitable, and high-quality education. The relationship between these goals is important because adequate nutrition influences cognitive capacity, learning readiness, and individual productivity in the future (Boeren, 2019).

In Indonesia, stunting and malnutrition remain serious challenges. According to the 2024 Indonesian Nutritional Status Survey (Survei Status Gizi Indonesia, SSGI) released by the Ministry of Health, the national prevalence of stunting was recorded at 19.8%. This figure decreased from 21.5% in 2023 but was reported to remain above the World Health Organization standard of 20%. The six provinces with the largest numbers of stunted children under five were West Java (638,000), Central Java (485,893), East Java (430,780), North Sumatra (316,456), East Nusa Tenggara (214,143), and Banten (209,600) (Ministry of Health of the Republic of Indonesia, 2024). Nutritional problems should not be viewed solely as public health issues but also as human development concerns because inadequate nutrition affects cognitive functioning, school attendance, and learning achievement. In this context, public policies aimed at meeting students' nutritional needs serve as important instruments for preventing long-term risks (Lawson, 2012).

The Free Nutritious Meals Programme (Makan Bergizi Gratis, MBG) was introduced as one of the government's strategic policies to strengthen nutritional fulfilment, particularly among students. The programme is intended not only to ensure access to nutritious food but also to strengthen the foundations of learning by promoting healthier physical conditions, improved concentration, and more consistent school attendance (Suprpto et al., 2025). However, as a national-scale public policy, the effectiveness of MBG cannot be assumed solely from its policy intentions. Its effectiveness must be assessed in terms of goal

attainment, targeting accuracy, implementation quality, and the benefits generated for recipient groups (Palumbo & Calista, 1990; Vedung, 2017).

Local-level findings indicate that MBG implementation continues to face complex challenges. Agnia et al. (2025), in their study at the Nutrition Fulfilment Service Unit (Satuan Pelayanan Pemenuhan Gizi, SPPG) managed by the Muhammadiyah Association Foundation in Pamulihan Subdistrict, Sumedang Regency, found that service coverage had reached only 17% of the target. The study also reported a mass food-poisoning incident, the discovery of rotten and maggot-infested food, and limited competence among programme personnel in nutrition and food sanitation. Another study by Suprpto et al. (2025) reported that, by the first semester of 2025, MBG had reached only 5.6 million beneficiaries, equivalent to 4.23% of its annual target. Only 1,873 SPPGs were operational out of the targeted 30,000 units, while more than 1,300 food-poisoning cases had been recorded across 10 provinces. In Bondowoso, Sari, (2025) found that although the planning and implementation of MBG at SDIT KIC Bondowoso were relatively effective, technical constraints remained, including limited transportation capacity and distribution schedules that were not aligned with school hours. These findings demonstrate that, despite its considerable potential, MBG implementation remains fragile and requires stronger governance.

Previous studies have examined school feeding programmes in various countries. In a systematic review, Lawson, (2012) found that such programmes positively affected micronutrient intake and school attendance, although their effects on anthropometric and cognitive outcomes were mixed. Kristjansson et al (2025), in a Cochrane review, reported that school feeding programmes produced slight improvements in mathematics scores and enrolment rates, as well as small increases in children's height and weight. However, their effects on reading performance and attendance were weaker. Barnabas et al. (2024), in north-eastern Nigeria, found that school feeding programmes significantly increased student enrolment and attendance but had no significant effect on mathematics and English examination scores. Raveenthiranathan et al. (2024), in a systematic review of 31 studies examining India's Mid-Day Meal programme, concluded that the programme effectively increased enrolment, attendance, and student retention while reducing school dropout rates. Nevertheless, its effects on nutritional indicators, including body weight, wasting, and mid-upper arm circumference, remained inconsistent. These studies consistently indicate that school feeding programmes are more effective in improving educational access and participation than in producing immediate academic outcomes.

In Indonesia, policy evaluations of MBG remain largely limited to public health perspectives and preliminary descriptions of programme implementation. Few studies have examined the programme from a public administration perspective or assessed its policy effectiveness in simultaneously contributing to SDG 2 and SDG 4. This gap establishes the urgency of the present study.

The novelty of this study lies in three main aspects. First, theoretically, the study integrates Vedung's (1997) public policy effectiveness framework with empirical evidence on school feeding in developing countries (Barnabas et al., 2024) and findings concerning local-level MBG implementation Agnia et al. (2025) to analyse the programme's simultaneous contribution to SDG 2 and SDG 4. Second, empirically, the study uses recent data collected after the launch of MBG in 2025, which have not yet been widely examined by other researchers. Third, from a policy perspective, the study offers evidence-based recommendations for strengthening programme governance at the central and regional levels.

RESEARCH METHOD

This study employed a descriptive qualitative approach using library research. Creswell (2014) defines a qualitative approach as a research procedure that produces descriptive data in the form of written words. According to Zed (2025), library research comprises a series of activities involving the collection of library-based data, reading, note-taking, and the processing of research materials. This method was selected because the study aims to understand the meanings, perspectives, and contextual factors influencing the effectiveness of the Free Nutritious Meals Programme (Makan Bergizi Gratis, MBG), which cannot be assessed solely through quantitative measurement.

The study used secondary data obtained from four main sources: (1) official government reports, including the 2024 Indonesian Nutritional Status Survey, the 2025-2029 National Medium-Term Development Plan, and reports issued by the National Nutrition Agency; (2) scientific articles published in nationally accredited SINTA journals and reputable international journals indexed by Scopus; (3) publications issued by international organisations, including the World Health Organization, UNICEF, the Food and Agriculture Organization, and the World Food Programme; and (4) policy documents related to MBG.

The literature search was conducted through Google Scholar, Scopus, and the SINTA Portal using the following keywords: "Makan Bergizi Gratis", "school feeding", "SDG 2", "SDG 4", "public policy effectiveness", "stunting", and "quality education". The inclusion

criteria comprised publications issued between 2015 and 2025, written in either Indonesian or English, and thematically relevant to the focus of the study. The initial search identified 45 documents. These documents were subsequently screened based on abstract relevance and full-text availability, resulting in 20 primary documents being selected for analysis.

The data were analysed using the interactive model developed by Miles et al. (2013), which consists of three stages. The first stage was data condensation, in which information concerning the relationship between MBG, SDG 2, and SDG 4 was selected and organised. The second stage was data display, in which the information was arranged into thematic matrices covering food access, nutritional status, learning concentration, participation, and school attendance. The third stage was conclusion drawing and verification, in which patterns and causal relationships among the themes were interpreted. To maintain the validity of the findings, source triangulation was conducted by comparing evidence from government reports, scientific journal articles, and publications issued by international organisations.

This study is limited by the absence of primary data collection through interviews or direct observation. Therefore, its conclusions are exploratory and should be understood as an assessment of the programme's potential effectiveness based on the available literature rather than as a final evaluation of MBG implementation.

RESULT AND DISCUSION

1. Effectiveness of the MBG Programme in Supporting SDG 2 (Zero Hunger)

From the perspective of SDG 2, the Free Nutritious Meals Programme (Makan Bergizi Gratis, MBG) can be understood as a policy intervention aimed at improving access to nutritious food. This programme is important because hunger and malnutrition are not merely issues of food availability, but also concerns related to food quality, affordability, and continuity of access. For students, the regular provision of nutritious meals can help maintain energy levels, improve nutrient adequacy, and reduce the risk of health problems associated with insufficient dietary intake (Kristjansson et al., 2025; Lawson, 2012).

Suprpto et al. (2025) reported that, as of June 2025, MBG had utilised a budget of IDR 5 trillion and reached 5.6 million beneficiaries through 1,873 Nutrition Fulfilment Service Units (Satuan Pelayanan Pemenuhan Gizi, SPPG). In terms of economic access, the programme involved more than 700 micro, small, and medium-sized enterprises and cooperatives, which experienced monthly income increases of up to 33.68%. Nevertheless, this achievement represented only approximately 6.2% of the annual target of 82.9 million

beneficiaries and 30,000 SPPGs. Therefore, substantial acceleration was required during the second half of 2025. These findings indicate that MBG has positive potential for local economic development, although its distribution effectiveness remains far from optimal.

Barnabas et al. (2024), in a study conducted in Nigeria, found that the school feeding programme increased student enrolment by 27% and improved attendance from 70.58 days to 90.86 days out of 120 school days. The duration of programme participation, which averaged 15 months, was positively correlated with an increase in English scores of 0.86 points per month, although no significant effect was found for mathematics. Raveenthiranathan et al. (2024), in a systematic review conducted in India, found that the Mid-Day Meal programme contributed to improvements in stunting and underweight prevalence. However, it did not produce significant effects on wasting, body weight, or mid-upper arm circumference.

In Indonesia, Agnia et al. (2025), in their study at the Pamulihan SPPG, found that the dimension of *Rationing Service: Limitation of Access and Demand* was moderately positive, as beneficiary criteria and distribution procedures were implemented in an orderly manner. However, the dimensions of *Inequality in Administration, Controlling Clients and the Work Situation*, and *Client Processing Mentality* were moderately negative because of unequal institutional capacity, excessive administrative workloads, and the tendency to treat students merely as administrative objects. This finding indicates that access restrictions and demand management were relatively effective, whereas administrative inequality and a client-processing mentality remained significant barriers.

Using Vedung's (1997) public policy effectiveness framework, MBG can be assessed in terms of targeting accuracy. The programme targets students, particularly those living in areas with a high prevalence of stunting. However, data from the 2024 Indonesian Nutritional Status Survey indicate that the six provinces with the largest stunting burdens continued to face constraints in the distribution of nutritious food. This condition suggests a gap between formally established targets and actual implementation in the field. Regarding implementation quality, the nutritional standards established by the central government had not been applied consistently across all regions, particularly in disadvantaged, frontier, and outermost areas. This condition is consistent with Palumbo and Calista's (1990) argument that policy implementation often constitutes a critical weakness that limits policy effectiveness.

Suprpto et al. (2025) also noted that the decline in the prevalence of stunting from 21.5% in 2023 to 19.8% in 2024 was more likely attributable to the national stunting reduction acceleration programme implemented since 2018 than to MBG. This is because MBG had not fully prioritised the first 1,000 days of life. Sari (2025), in a study conducted in

Bondowoso, further identified budget limitations and insufficient institutional capacity as factors constraining programme effectiveness at the local level.

2. Effectiveness of the MBG Programme in Supporting SDG 4 (Quality Education)

Within the context of SDG 4, MBG is significant because the quality of education is determined not only by the curriculum and teacher competence but also by students' biological readiness to learn. Children who receive adequate nutritional intake tend to demonstrate better concentration, more active classroom participation, and more consistent school attendance. Therefore, MBG can be positioned as a supporting policy that strengthens the learning environment (Wang et al., 2021).

Suprpto et al. (2025) reported that schools in Bogor Regency and South Lampung recorded a 2% to 3% increase in student attendance following the implementation of MBG. Teachers also observed improvements in students' concentration during classroom activities. However, long-term academic effects, such as improvements in Programme for International Student Assessment scores, could not yet be measured. Barnabas et al. (2024) found that 88.3% of teachers in Nigeria perceived an increase in student enrolment, 88.3% observed a reduction in absenteeism, and 70.6% perceived improvements in academic performance. However, school records showed that increases in mathematics scores from 46.98 to 48.78 and English scores from 46.53 to 48.21 were not statistically significant. Raveenthiranathan et al. (2024) similarly reported that India's Mid-Day Meal programme effectively improved attendance, enrolment, and retention while reducing school dropout rates. Nevertheless, its effect on academic performance remained debatable. These findings emphasise that the effects of school feeding programmes on learning outcomes are not automatic and depend heavily on other institutional factors, including teacher quality, student-teacher ratios, and the broader learning environment. Using Lipsky's (2010) theory of street-level bureaucracy, Agnia et al. (2025) found that local-level MBG implementation remained dominated by administrative routines that reduced officers' attention to children's individual needs. The *Client Processing Mentality* dimension reflected a tendency to treat beneficiaries as administrative objects rather than as individuals with distinct needs. This tendency may reduce the programme's effectiveness in supporting SDG 4 because a humanistic and child-centred approach is essential to the achievement of quality education. Sari (2025), in Bondowoso, found that although programme supervision was conducted through field inspections and online evaluations, its effectiveness remained limited because of budgetary constraints and inadequate institutional capacity.

In relation to SDG 4, the principal value of MBG lies in its capacity to strengthen healthy, stable, and sustainable preconditions for learning (Lawson, 2012; Boeren, 2019). However, without integration with nutrition education in the curriculum and improvements in the competence of field personnel, the programme's impact on education quality will remain limited. Suprpto et al. (2025) recommended integrating MBG with nutrition education and involving students in menu planning, as practised in Finland. Such measures could improve health literacy and reduce food waste.

3. Policy Effectiveness and Implementation Challenges

When analysed from the perspective of public policy effectiveness, MBG demonstrates strong potential but still requires significant improvement in its implementation. A sound programme cannot be assessed solely on the basis of the size of its budget or its formal coverage. More important considerations include whether programme objectives are achieved, whether target groups receive actual benefits, whether service quality is consistent, and whether programme impacts are distributed equitably. The policy evaluation literature emphasises that implementation is not merely a technical stage but a central component of policy success (Palumbo & Calista, 1990; Vedung, 2017). Based on Agnia et al. (2025), the Pamulihan SPPG faced at least four major challenges: 1). unequal administrative capacity across schools; 2). the dominance of administrative tasks, which reduced interaction with beneficiaries; 3). unstable working conditions, which affected service quality; and 4). limited human resources and supporting facilities.

Sari (2025) identified additional technical challenges, including limited transportation capacity. Distribution vehicles could transport only 300 meal portions per trip, whereas daily demand ranged from 800 to 1,200 portions. This limitation required meals to be distributed in stages and potentially disrupted teaching and learning activities. Suprpto et al. (2025) also identified governance challenges, including the absence of a strong legal framework, as a specific presidential regulation governing MBG was still being drafted. Other problems included a lack of transparency in the appointment of SPPG partners and the absence of a monitoring system capable of measuring the programme's long-term effects on nutritional status and learning outcomes.

Overall, MBG is a public policy situated at the intersection of nutrition, education, and human development agendas. With effective governance, the programme has the potential to contribute simultaneously to the achievement of SDG 2 and SDG 4. However, without a robust governance system, its benefits are likely to remain limited to short-term outputs. Suprpto et al. (2025) recommended realigning MBG to give greater priority to the first 1,000

days of life, integrating nutrition education into the curriculum, and establishing a transparent and accountable data-based monitoring and evaluation system.

CONCLUSION

The Free Nutritious Meals Programme (Makan Bergizi Gratis, MBG) is a relevant public policy for supporting the achievement of SDG 2 and SDG 4 in Indonesia. In relation to SDG 2, MBG contributes to expanding students' access to nutritious food and strengthening long-term efforts to prevent malnutrition, although its direct effect on reducing stunting cannot yet be conclusively attributed to the programme. In relation to SDG 4, the programme supports students' learning readiness, concentration, participation, and school attendance, as indicated by a 2% to 3% increase in attendance in several schools and positive perceptions among teachers.

The effectiveness of MBG is strongly determined by implementation quality, targeting accuracy, equitable coverage, distribution consistency, and transparent and accountable governance. Local-level findings and policy evaluations indicate that gaps remain between policy design and field-level realities, particularly in relation to staff capacity, administrative workloads, food safety supervision, and limited distribution infrastructure. Therefore, MBG should be understood as a cross-sectoral policy with considerable potential to strengthen human development. However, it requires stronger implementation capacity, regulatory harmonisation, and an integrated monitoring and evaluation system to ensure that its benefits are achieved optimally and sustainably.

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