



FREE LUNCH PROGRAM FOR STUDENTS IN SEVERAL COUNTRIES AND VALUABLE LESSONS FOR INDONESIA PREPARING THE GOLDEN GENERATION OF 2045

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Abstract

Improving the quality of human resources is Indonesia's main goal to achieve Golden Generation status by 2045. This research analyzes different lunch program models that have been successfully implemented in countries such as Finland, Japan, Brazil, and India. The analysis shows that the success of these programs does not only depend on nutritional aspects; integrated nutrition education, parental participation, and support from the government and community are also important. In schools, nutritious food is very important for the health and cognitive development of students as well as for improving their academic performance. This research found challenges and opportunities for Indonesia in implementing similar programs. This research uses a qualitative approach. The recommendations made include enhancing educator training, implementing policies that support the provision of healthy food in schools, and raising public awareness about the importance of good nutrition for children. By taking valuable lessons from other countries, it is hoped that Indonesia can develop an efficient and sustainable lunch program. This will improve students' health and help build a competitive generation to achieve the Golden Generation 2045.

Keywords: Golden Generation 2045, Lunch Program, Valuable Learning

INTRODUCTION

Quality education is one of the main pillars in preparing a superior and competitive generation. In Indonesia, with the vision of achieving the "Golden Generation 2045", strategic steps are needed to support improving the quality of human resources. One aspect that is often overlooked in the context of education is the provision of adequate nutrition for students, especially during school hours. The free school meal program has become an important policy in efforts to improve the quality of human resources in various countries. This policy not only focuses on meeting students' nutritional needs, but also has a broader impact on academic achievement, attendance rates, and social welfare (Septiani, Rosiana, & Azzahra, 2024).

In many countries, student lunch programs have been implemented as an effort to improve health and concentration in learning. Countries such as Finland, Japan, Brazil and India have shown that planned and quality lunch programs not only improve students' physical well-being but also contribute to improved academic achievement. The experiences of various countries show that investing in school meal programs is a strategic step to build a healthier and better generation (Ramadhani, 2024).

Finland as one of the countries with the best education system in the world, has implemented a free school meal program. According to research by Tikkanen and Urho (Dwijayanti, 2024) this country understands that good nutritional intake has a direct correlation with students' learning abilities. The free lunch program in Finland not only provides nutritious food, but also teaches students about healthy eating patterns, dining etiquette, and the importance of environmental sustainability. As a result, Finland consistently produces high-quality graduates who are able to compete globally.

Japan has a unique approach to its school meal program called "kyushoku." Research conducted by Tanaka and Miyoshi (Amazihono, n.d.) shows that school lunches are not just about providing food, but also part of a curriculum that teaches the values of nutrition, hygiene, and cooperation. Students participate in the preparation and distribution of food, clean up after meals, and learn about values such as cooperation, responsibility, and gratitude. This kyushoku model has been proven effective in shaping students' character while ensuring they get enough nutrition to support their learning activities.

Brazil has implemented a national school meal program that serves over 40 million students. Sidaner et al. (Zaman, Fadhilah, Ulinuha, & Umam, 2024) report that the program focuses not only on providing food but also supports local agriculture by requiring that at least 30% of food be purchased from local farmers. This holistic approach has been successful in reducing dropout rates, improving academic achievement, and supporting the local economy. Brazil's success shows that school meal programs can be a catalyst for broader socio-economic development.

India, through its Mid-Day Meal Scheme, has significantly increased school enrollment rates, especially among girls from poor families. A longitudinal study by Chakraborty and Jayaraman (Abdurrahman & Wibowo, 2024) shows that the programme serves over 120 million children every day, making it one of the largest social safety net programmes in the world. Despite challenges in implementation, the programme has proven effective in combating malnutrition and improving literacy rates among disadvantaged populations.

South Korea is also one of the countries that has a free meal program. Alinda and Irawan (Karomah, Wahyuni, & Trisnasari, n.d.) wrote in the Kompas news that the program has been running for more than 70 years. This program began with disaster relief in 1953. For 20 years, UNICEF, CARE, and USAID from Canada have provided free food assistance to several elementary schools in South Korea. The reason is that the war caused malnutrition in 620,000 elementary school students. The free nutritious food offered at that time included corn porridge, corn bread, wheat bread, hand-pulled dough, and biscuits. In 1973, South Korea tried to resume free nutritious food assistance in schools after it was discontinued.

Due to the difficult economic conditions at that time and the lack of understanding of school food services, the South Korean government could not allocate much budget to provide healthy meals (Fauzi, 2024). Therefore, schools provide free meals independently. Each school provides labor and side dishes from the produce. Some schools even work with chicken, pig, fish, fruit, and vegetable farms to provide healthy meals for their students.

Even parents donate goods to maintain the program. In this way, schools can provide students with healthy food options such as bread or noodles, side dishes, milk, or soy milk. These lessons from various countries show that free school meal programs are not just social assistance, but strategic investments in human resource development. Singh and Anderson (Merlinda & Yusmar Yusuf, 2025) that the success of this program depends on several key factors, namely strong political commitment, sustainable funding, community involvement, and integration with broader educational goals. The 8 missions of Asta Cita (Ministry of PPN/Bappenas) are strengthening human rights, strengthening the defense system, developing infrastructure, strengthening human resources, continuing downstreaming and developing natural resource-based industries, building villages for economic equality, strengthening political reform and strengthening harmonious life alignment to achieve a just and prosperous society. One of them in the program states that providing free lunch and milk at school will help improve the nutritional intake of toddlers and pregnant women. This global experience can be a valuable reference for countries that want to develop or strengthen their school meal programs as part of a strategy to improve the quality of human resources.

In Indonesia, while some steps have been taken to provide healthy school meals, significant challenges remain regarding access, quality, and sustainability of these programs. Many students, especially in remote and underprivileged areas, do not receive adequate nutrition. This has the potential to hinder their learning and development, which in turn can affect the quality of future generations (Purwanti & Sugiyono, 2024).

Through this thesis proposal, the author attempts to analyze the implementation of lunch programs for students in several countries and explore valuable lessons that can be adapted for Indonesia. By understanding the successes and challenges of these programs, it is hoped that an effective model can be found to be implemented in Indonesia, as part of efforts to prepare a healthy, intelligent, and competitive golden generation of 2045. With this background, the author hopes that this research can provide significant contributions not only to the world of education, but also to public nutrition and health policies in Indonesia (Aji, 2025).

METHODS

Types of research

This study was conducted using a qualitative method, meaning that data was obtained from various research results and previous studies that were relevant to the content of the study (Widiasanti, Adelia, Rosidin, Viola, & Daniarista, 2023). The study used a literature review approach or literature review which was analyzed as a relevant reference regarding the implementation of free meals for students in various countries as well as observations and interviews (Raysa Azzahra, Mislaini, & Aidil Zulfikar, 2024).

Data source

Primary data is data collected directly from the original source or first source. Primary data in this study contains:

- 1) Indexed international journal articles are original scientific publications that produce research findings that have gone through a rigorous peer-review process. In addition, these

international journal articles are written by researchers or academics who are competent in their fields and contain new and unique findings in a particular field.

- 2) Research report, which contains an explanation of the research process and results. This includes observations and interviews. This report is made by researchers who have conducted raw data analysis.
- 3) Official policy documents, issued by the government or official agencies, which have official policies, regulations, or plans and have high authority and credibility, and whose information sources are reliable.

Data collection technique

It is a structured method for collecting data from various academic and official sources. This method includes (Cohen, Hecht, McLoughlin, Turner, & Schwartz, 2021b):

- 1) Academic databases (Scopus, Web of Science, etc.), are the main platforms for searching for scientific articles of good quality. They allow access to accredited academic publications, journals, and conference proceedings and allow in-depth searches with special filters.
- 2) Institutional repositories, containing official publications from universities or research institutions that provide access to trusted theses, dissertations, and academic articles originating from educational institutions.
- 3) The official government website, providing official data and documents covering national statistics, ministerial reports, and government policies, as well as official sources of information.
- 4) Publications of international organizations (UN, WHO, World Bank), which provide research reports, global data, comprehensive analysis and reliable international information sources.

Data Analysis Techniques

It is the process of simplifying and transforming raw data into meaningful information. Data reduction includes (Cohen, Hecht, McLoughlin, Turner, & Schwartz, 2021a):

- 1) Selection of relevant sources is done by selecting data sources that are appropriate to the research subject, eliminating information that is not relevant to the research objectives, and ensuring their quality and relevance.
- 2) Theme coding, identifying important patterns and concepts in the data by labeling or coding important components to facilitate data organization and analysis.
- 3) Categorization of information, namely grouping data according to comparable things, carrying out systematic classification, and creating a conceptual framework from the available data.

Drawing Conclusions

It is the process of interpreting and drawing conclusions from the analyzed data. Drawing conclusions includes:

- 1) Source triangulation, which is comparing data from various sources, ensuring that the information is correct, and increasing the credibility of the results.

- 2) Comparative analysis, which is comparing data between groups or categories to find similarities and differences. The goal is to gain a better understanding.
- 3) Synthesis of findings, namely integrating results from various sources to produce comprehensive conclusions and combine various types of information.

The main goal of data analysis techniques is to transform raw data into meaningful, systematic, and scientifically accountable information by researchers (Ruffini, 2022).

Research Procedures

Preparation Stage

It is a critical initial phase in designing comprehensive research. Some stages of preparation include:

- 1) Preparation of the proposal, includes formulating the background of the research problem, determining the objectives and significance of the research, developing a conceptual framework, designing the research methodology and preparing a data collection and analysis plan (Watts et al., 2021).
- 2) Research planning, includes identifying potential data sources, determining source selection criteria, mapping out information search strategies, creating a research timeline, and preparing the resources needed.

Implementation Stage

The implementation phase of the research plan that has been prepared. The stages are as follows:

- 1) Data collection, conducting systematic searches, collecting data from various sources, recording and organizing data, documenting, ensuring data quality and accuracy.
- 2) Data analysis, performing data reduction, categorizing information, coding themes, building patterns and relationships, performing initial interpretations.
- 3) Validate findings, triangulate sources, conduct peer reviews, consult with experts, verify data accuracy, ensure the credibility of findings.

Reporting Stage

The final phase to document the research results. The following are the reporting stages that must be carried out, namely (Lundborg, Rooth, & Alex-Petersen, 2022):

1. Drafting is done by writing a research report, compiling chapters one by one, systematically describing the findings, integrating data and analysis, and making initial conclusions.
2. Revision and improvement, conducting internal reviews, asking for input from supervisors, making improvements to substance, improving format and systematics, ensuring the quality of the report.
3. Finalize the report, perform final editing, format according to standards, create an abstract, complete appendices, and prepare for publication.

The main objective of this research procedure is to produce scientific work that is systematic, credible and contributes to the development of knowledge.

RESULTS AND DISCUSSION

Research Implementation

The research was conducted from November 2024 to February 2025.

Lunch Programs in Some Countries

This section presents research findings on student lunch programs in various countries and key lessons that Indonesia can learn. It is hoped that this research will help policymakers create meaningful programs to support student education and health in Indonesia.

Finland

In Finland, the Lunch program began in 1943 as a response to post-war poverty. It was the first in the world to provide free lunches to all students. The program aims to ensure that students receive adequate nutrition to maintain their health and concentrate on their studies. The Finnish Ministry of Education and Culture states that every child has the right to receive healthy and nutritious food throughout the school day (Cohen, Hecht, Hager, et al., 2021).

Free lunch is available to all students, regardless of their economic background. The lunch menu is designed to meet the nutritional needs of children, with most main courses, salad, bread, and milk. In addition, there are vegetarian options for all students.

In the study of Heim et al. (Ricotti et al., 2021) showed that the free lunch program in Finland improves students' academic achievement. Students who receive healthy food tend to have better concentration, higher attendance rates, and better academic achievement. In addition, the program contributes to reducing social inequality because it gives all students equal access to healthy food. Heim et al. (Psaki, Haberland, Mensch, Woyczynski, & Chuang, 2022) stated that although the program was successful, there were still some issues that had not been resolved. For example, the menu must be adjusted to the development of nutritional science and children's tastes. In addition, parental and community involvement is needed in developing the menu so that students prefer to eat food.

Finland's Lunch Program not only feeds people, it also helps with education and reduces inequality. The program is a success, and other countries looking to implement good food policies to improve their children's health can follow its example.

Japan

Since 1954, the lunch program, called "Kyushoku" , has been an important part of the Japanese education system. In addition to educating students about the importance of a healthy diet, the main goal of the program is to provide students with nutritious food. This program helps children's physical and cognitive growth.

kyushoku program uses strict nutritional guidelines to create its meals. Japan has a meal consisting of rice, side dishes, vegetables, and milk. In addition, in the process of serving food, students

participate in preparing and serving food. The purpose of this process is to teach students responsibility and life skills.

Studies have shown that kyushoku programs contribute significantly to the health of children in Japan, reducing the risk of obesity and malnutrition. In addition, the program also plays a role in increasing a sense of togetherness and cooperation among students, as they often eat together in a fun atmosphere (Powell, Lawler, Durham, & Cullerton, 2021).

Challenges such as budget constraints and changes in Japanese diets are of concern to the public despite the program's success. In addition, the menu must be continually updated to reflect advances in nutrition science and the latest food trends. Initiatives that involve parents and the community in menu creation are increasingly important to increase the program's acceptance and success.

Brazil

The Brazilian Lunch Program, known as the "*Programa Nacional de Alimentação Escolar*" (PNAE) was initiated in 1955 to ensure that school children, especially those from low-income families, received nutritious meals. The program was part of a broader effort to address malnutrition and improve the quality of schooling for students (Neufeld et al., 2022).

PNAE provides free meals to students from elementary to high school. Meals typically consist of rice, beans, vegetables, and fruits, with an emphasis on using local and organic produce to support local farmers. The menus are designed by nutritionists and must meet certain nutritional standards. Studies show that PNAE contributes significantly to improving children's nutrition in Brazil. Because of the food provided, the program increases students' school attendance and reduces their hunger. By providing equal access to healthy food, the program also helps reduce social inequality. Kitaoka (Sahoo et al., 2023) explained that PNAE still faces problems such as inconsistent funding and different implementations in different regions, even though it has achieved many results. The menu must also be adjusted to the development of nutritional science and children's tastes. To increase the success and sustainability of PNAE, initiatives to involve parents and the community in the program are increasingly important.

In Brazil, the Lunch Program not only feeds people, but also helps improve education and reduce social inequality. The success of the PNAE can serve as an example for other countries looking to improve the well-being of their children through effective food policies.

India

Mid-Day Meal Scheme (MDMS) in India was first launched in 1995. The aim of the program was to provide primary school students with healthy meals, with a special emphasis on children growing up in underprivileged families (Isnanto & Yustika, 2020)

MDMS not only addresses malnutrition but also improves student attendance and academic achievement. Students in government and subsidized schools from grades I to VIII receive free meals from MDMS. The meals provided are usually rice, bread, lentils, vegetables, and eggs or

dairy products. In addition, the program involves communities and non-governmental organizations to monitor the quality of the meals.

Studies show that MDMS has reduced school dropout rates and improved the nutritional status of children. Students who receive nutritious food are more likely to attend school and have better learning outcomes. By providing equal access to food for all students, the program contributes to reducing social inequalities.

MDMS still faces issues such as distribution logistics, funding, and food quality. In addition, the menu must be adjusted to the advancement of nutritional science and local preferences. To increase the success and sustainability of MDMS, it is increasingly important to involve parents and communities in the program.

The Mid-Day Meal Program in India helps in many ways, not only by feeding people, but also by helping people learn more and reducing social inequalities. The MDMS can serve as a model for other countries seeking to achieve similar goals, namely improving children's well-being through effective food policies (Patras, Iqbal, Papat, & Rahman, 2019).

Comparative Analysis of School Lunch Programs

The goal of the School Lunch programs in Finland, Japan, Brazil and India is the same, which is to provide students with healthy food. However, their policies, regulations, operations, and social and educational impacts are different. A comparative analysis of the four countries is presented in the following table.

Table 1. Comparative Analysis of Programs

Country	Aspect analysis				
	4.3.1 Program equation	4.3.2 Program differences	4.3.3 Policies and regulations	4.3.4 Operational	4.3.5 Education and social
Finland	<u>The main purpose</u> These programs seek to improve students' health and support their education by providing them with time to eat to reduce hunger during school hours.	<u>funds</u> and provides free lunch for all students. <u>The quality and variety of</u> local and healthy foods, with vegetables and plenty of whole grains, is a priority. <u>Source of funding:</u> Although there are minimal fees, many students from low-income families receive discounted or free meals.	Governed by the basic education law, which ensures that every student receives healthy food. The Ministry of Education, Culture, Sports, Science and Technology (abbreviated as monkashō or nextō) oversees lunch policy, which has strict nutritional	All students receive the same meals at school, which are prepared with the help of a nutritionist. The process of serving food teaches students responsibility and cleanliness.	This program improves students' academic achievement and well-being. School lunch is a social event where students learn to share and work together.
Japan		<u>Quality and type of food</u> Often serving rice,			

Brazil	<u>Government involvement</u> in terms of funding and regulations, the governments of all four countries strongly support the lunch program.	vegetables, and fish, and students are involved in serving it.	and presentation standards.		
		<u>A program</u> funded by state and federal governments that assists students from low-income families.	The law governing pnae requires the provision of nutritious food in schools, especially for children from disadvantaged families.	This program involves local communities in providing food with a focus on using local ingredients.	Pnae reduces social inequalities and improves student attendance.
India	<u>Balanced nutrition:</u> although there are different types of food served, the focus of the program in each country is to provide balanced and nutritious meals.	<u>cost sources</u> have bigger problems with financing and distribution.	MDMS is regulated by the ministry of education, but implementation and funding are often problematic.	Despite community participation, programs often fail due to logistical and distribution problems.	MDMS plays a role in increasing student attendance at school, but in its implementation there are still challenges in the distribution and quality of food.
		<u>Quality and type of food</u> Providing food that suits local customs, but often faces quality and variety issues.			

Valuable Lessons for Indonesia

Potential Implementation of Free School Nutritional Meal Program for Indonesia

Various countries prepare students as a quality generation, including through the provision of free lunches, where the results are very significant. Of the four countries studied, as explained above, there are even special provisions for free lunches in the Law, so that its sustainability is guaranteed. Providing free nutritious school lunches can help address stunting and malnutrition in Indonesia. Children can grow well physically and cognitively if they are provided with nutritious food. The program can improve student attendance and academic achievement, as seen in Brazil and India. The program can boost local economies and increase farmers’ incomes by prioritizing the use of food from local farmers (Kaso, 2021).

Then, for Indonesia under the leadership of President Prabowo, Free Nutritious Meals for school children, toddlers, pregnant women and breastfeeding mothers have been launched since January 6, 2025. This program is implemented by the National Nutrition Agency with the Chairperson Prof. Dr. Ir. Dadan Hindayana, M.Sc. The purpose of the program is to improve the nutritional quality of the community, especially for vulnerable groups. To implement it, the National Nutrition Agency collaborates with the Ministry of Education and Culture, the Ministry of Health, and

various community groups. They will disseminate socialization and provide training to teachers and health workers throughout the region.

Each school will have a free nutrition post that provides nutritious food for children. The menu is designed by nutritionists to ensure that children get a balanced intake and according to their growth needs. To help pregnant and breastfeeding mothers, there needs to be a mentoring program (Madi Odeh, Obeidat, Jaradat, Masa' deh, & Alshurideh, 2023).

The program will start in remote areas with limited access to nutritious food. The government promises to immediately spread the program throughout the country. Therefore, it is hoped that Indonesian children will no longer be malnourished, and every pregnant and breastfeeding mother can provide the best for the next generation.

President Prabowo hopes that Free Nutritious Meals will produce a healthy, smart and productive generation. This is the first step towards achieving the Golden Generation 2045 where every child will have an equal opportunity to grow and develop well.

Challenges and Obstacles

The challenges and obstacles in implementing this program include:

- 1) Funding Issues, To support this program, a large budget is needed. Poor budget management in Indonesia is often an obstacle, including the possibility of corruption and misuse of funds.
- 2) Food Quality and Variety, It is very difficult to guarantee the quality and variety of food served. The quality and nutritional content of food served in similar programs in other countries suggests that this requires special attention.
- 3) Logistics and Distribution, One of the biggest challenges is managing food distribution to different regions with different geographical conditions. Food can become unfit for consumption if there is a delay in delivery or storage problems.
- 4) Community Involvement, Programs can fail without parental and community participation. Learning from a program in Japan, student involvement in food provision increases their sense of responsibility.

Adaptation Strategy

Adaptation and strategy design are needed to implement this program, namely as follows:

- 1) Mature Budget Planning, To ensure that funds are used effectively and efficiently, the government must create a transparent and accountable budget and carry out strict supervision to prevent budget misuse.
- 2) Developing a Diverse and Nutritious Menu, Involving nutritionists in menu creation so that food meets nutritional standards and is attractive to children. In addition, the program must consider the eating habits of local communities.
- 3) Building an Efficient Logistics System, To ensure that food reaches schools in good condition, it is necessary to create a good distribution system and provide training to employees involved in food procurement and distribution.

- 4) Increasing Community Engagement, Involving parents, teachers, and the community in program planning and implementation can increase community support and participation and ensure programs meet local needs.
- 5) Continuous Monitoring and Evaluation, Periodic evaluation is conducted to evaluate the performance of the program and make necessary changes. This is important to ensure that the program remains relevant and achieves its intended goals.

Program Development Recommendations

Indonesia must start the Free Nutritious Meal Program in Schools with a comprehensive approach to prepare the Golden Generation of 2045. On Wednesday, February 19, 2025, researchers visited the Nutrition Fulfillment Service Unit (SPPG) in Tanah Sereal, Bogor City, which is managed by the National Nutrition Agency. The SPPG in Bogor City has been conducting a healthy eating trial since November 2024 and was inaugurated in January 2025. One of the SPPG officers, Mr. Rio, said "every day we distribute 3,332 healthy food boxes". This healthy food has been processed starting at 01.00 in the morning by several officers, namely local mothers. Then, this healthy food is distributed at 08.00 - 09.00 WIB using 2 transportation (box cars). The food ingredients used come from surrounding MSMEs. Mr. Rio explained that the healthy kitchen in Bogor City is the 4th of 4 places that have conducted trials and been realized. However, he also said that the impact of this healthy eating program was that students enjoyed eating together and got to know various types of vegetables and fruits. In several schools, there was an increase in student attendance and students were active in the learning process. (Umair & Dilanchiev, 2022) Therefore, after visiting the Nutrition Fulfillment Service Unit, researchers made recommendations that could be implemented for the free lunch program for a certain period of time. Here are some program recommendations in the table below:

Table 2. Program Development Recommendations

Time	Recommended programs Development of regulations and policies	Pilot project	Human resource development	Infrastructure
	(1) <u>Preparation of legal umbrella</u>	(2) <u>Pilot location</u>	(3) <u>Core team training</u>	(4) <u>Physical development</u>
Short term 2025 - 2030	Drafting presidential and ministerial regulations on the free nutritious meal program in schools and its implementation standards.	Determine schools that can represent urban, semi-urban and rural areas.	Create training for national, provincial and district levels which will form the core management team.	Building a demonstration kitchen at the demonstration school site, a food storage warehouse, a communal dining room and a basic sanitation system.
	<u>Operational standards</u>	<u>Implementation model</u>	<u>Program</u>	<u>System development</u>
	Prepare program implementation guidelines, nutritional	Create schools based on central kitchens and schools based on catering kitchens.	<u>Certification</u>	Create an application system for program management, real-time program monitoring and
			Create a program that issues certificates for school kitchen managers, food safety	

	standards and menus, food safety protocols and program management guidebooks.		officers and school nutrition officers.	online program reporting.
Medium term 2031 - 2035	(1) <u>Operational standards</u> Conduct a 5- year evaluation and follow up on program implementation	(2) <u>Distribution of area</u> Adding schools every year in each region representing urban, semi-urban and rural areas.	(3) <u>School farming</u> Creating gardens at each school location, collaborating with local farmers and providing agricultural education	(4) <u>Continued physical development</u> Establishing central kitchens, quality testing laboratories and regional training centers.
		<u>Implementation model</u> Creating regional distribution centers, integrated supplier networks and integrated logistics systems.	<u>Community empowerment program</u> Creating school farmer groups, food management cooperatives, forming SMEs providing food raw materials and conducting socialization of SME programs.	<u>Advanced system development</u> Create a system that uses AI for inventory management, IoT for quality monitoring and big data for program analysis.
Long term 2036 - 2045	(1) <u>Program development</u> The program was developed to have a national scope.	(2) <u>Social business</u> Manage program funds, build partnerships and keep the economic system stable	(3) <u>Integrated curriculum</u> Incorporating nutrition education into the curriculum, implementing sustainable agricultural practices and managing food waste healthily	(4) <u>Physical development innovation</u> Building smart kitchens and renewable energy
	<u>Operational standards</u> Making soup for school kitchens, national halal certification, program accreditation and obtaining international standards	<u>Achievement of the 2045 target</u> Creating indicators of program success that include optimal nutritional status of students, zero hunger in schools, increased academic achievement and the impact of the program that includes reducing stunting, increasing nutritional literacy, school food independence and	<u>Research program</u> create a school lunch study center, research the impact of the program for sustainability studies and develop innovative menus.	<u>Model innovation</u> Making the program a center for ASEAN learning, international cooperation and technology transfer.

empowering the local
economy.

CONCLUSION

Indonesia has great potential to improve children's health and education. Indonesia can build an efficient and sustainable Free Lunch Program that will help improve children's nutritional status and support the achievement of the Golden Generation by 2045. Each person's nutritional needs are different based on their activity level, growth, and health condition. This is an important aspect to consider in this national free lunch program.

This nationwide program presents its own logistical challenges. It is a complex task to deliver food to tens of millions of children in diverse locations with varying topography and accessibility, including ensuring that food is delivered on time, is of high quality, and meets good food safety and hygiene standards. In setting healthy lunch standards, other factors to consider include cultural and religious customs related to food, as well as restrictions for specific students. To prevent food waste and reduce the likelihood of food wastage, appropriate portion sizes must be established nationally.

The program will ensure that students receive at least one healthy meal each day. Adequate nutrition for children is essential for their cognitive development and overall health. Students who receive better nutrition tend to be more active in class, which can have a positive impact on Indonesia's economic growth.

In addition, the program will encourage parents, especially those from poor families, to ensure that their children go to school and prioritize their children's education over other responsibilities. This will help reduce the dropout rate. The program will ensure that students from all backgrounds have access to healthy food, thereby reducing the current disparities. Students from different backgrounds are encouraged to have the same menu for all in one school. Providing healthy food will indirectly help parents and children learn about nutritious food, healthy eating habits, and proper meal times.

There are advantages and disadvantages to the Free Lunch Program. School Lunch Programs in Finland, Japan, Brazil, and India show that despite having similar goals, their policies, regulations, and implementation are very different. The program relies heavily on government support, community participation, and food quality. Significant funding is required for the program, which will burden the government's budget. In addition, the program must be managed accurately and transparently so that no money is wasted or misused. For the program to be successful and produce benefits, the current challenges must be addressed with the right approach.

Suggestion

In essence, the Free Lunch Program has the potential to have a positive impact on education, health, and equality. However, to optimize its benefits while overcoming its constraints, careful and deliberate planning, accountability, and effective implementation are needed. In order to avoid dependence, it is important to maintain a balance between the assistance provided and the assistance received. For the success of this program, researchers recommend careful financial

governance and compliance with fiscal constraints. Suggestions for further researchers are expected to find the right pattern and review for improving the implementation of free meals for students in relation to improving the quality of human resources.

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