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The Role of the Tanjungpinang City Health Office in Environmental Health Supervision of Nutritional Fulfillment Service Units under the Free Nutritious Meals Program: A Case Study of SPPG Mekar Sari

Bayu Setiawan[1*], Eki Darmawan[2], Khairi Rahmi[3]
[1-3] Universitas Maritim Raja Ali Haji
email: bayuusetiawann28@gmail.com[1]

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Abstract

Environmental health supervision is an essential component in ensuring food safety and the successful implementation of Indonesia's Free Nutritious Meals Program (Program Makan Bergizi Gratis MBG). This study aimed to examine the role of the Tanjungpinang City Health Office in supervising environmental health at the Nutritional Fulfillment Service Unit (Satuan Pelayanan Pemenuhan Gizi—SPPG), using SPPG Mekar Sari as a case study. A qualitative descriptive approach with a case study design was employed. Data were collected through semi-structured interviews, direct observations, and document analysis involving the Health Office, SPPG management, schools, and community representatives. Data were analyzed using the Miles and Huberman interactive model, while T. Hani Handoko's supervision theory served as the analytical framework. The findings reveal that environmental health supervision has been implemented systematically through four supervisory dimensions: standard setting, performance measurement, performance evaluation, and corrective action. Standardized inspection procedures, periodic environmental health assessments, inter-agency collaboration, and continuous technical guidance have strengthened institutional compliance with sanitation and food safety standards. Corrective actions implemented following supervisory evaluations contributed to improvements in waste management, environmental cleanliness, and hygiene practices. The study concludes that effective environmental health supervision depends not only on regulatory compliance but also on collaborative governance, continuous organizational learning, and adaptive management. These findings provide theoretical contributions to public administration and practical recommendations for strengthening environmental health governance to ensure the sustainability of the MBG Program.

***Keywords**: environmental health supervision, Free Nutritious Meals Program, Nutritional Fulfillment Service Unit, public administration, food safety*

INTRODUCTION

Human resource development constitutes a strategic dimension of sustainable national development because the quality of public health and nutritional status directly influences productivity, competitiveness, and societal welfare. The improvement of human resource quality is determined not only by policies in the education and economic sectors but also by the capacity of the public health system to provide safe, equitable, accessible, and sustainable nutritional services (Rosmalah et al., 2024). From a public administration perspective, the achievement of human development objectives is closely associated with the effectiveness of government institutions in delivering high quality public services and managing human resources in a professional, responsive, and adaptive manner in accordance with changing societal needs (Sabri et al., 2024; Zainal et al., 2026). Public nutrition programs consequently represent an important component of national development policy because nutritional adequacy constitutes one of the fundamental prerequisites for improving human capacity and strengthening long term national development.

The Indonesian government has introduced the Free Nutritious Meals Program, known as Program Makan Bergizi Gratis or MBG, as one of the strategic policy instruments for improving population nutrition, particularly among school aged children, while supporting the achievement of the Golden Indonesia 2045 vision. The implementation of the program has been institutionally strengthened through the establishment of the National Nutrition Agency and the formulation of

regulations governing institutional structures, authority, implementation procedures, and supervisory mechanisms. Presidential Regulation No. 83 of 2024 and Presidential Regulation No. 115 of 2025 provide an important regulatory foundation for the institutional administration and implementation of the program. These regulatory arrangements indicate that the government's responsibility extends beyond the provision of nutritious meals to include the establishment of an accountable implementation system that incorporates food safety, environmental health, and public health protection principles (Nango et al., 2025; Waluyo, 2025). The effectiveness of the MBG Program therefore cannot be assessed solely on the basis of the number of beneficiaries served, but must also be evaluated in terms of the capacity of implementing institutions to maintain food quality, safety, sanitation, and service sustainability.

Within the implementation of the MBG Program, the Nutritional Fulfillment Service Unit, or Satuan Pelayanan Pemenuhan Gizi (SPPG), functions as an operational institution responsible for a series of activities encompassing food procurement, preparation, processing, storage, and distribution to program beneficiaries. The multidimensional nature of these activities creates potential environmental health risks at each stage of service delivery, particularly when hygiene and sanitation requirements are not implemented consistently. Law No. 17 of 2023 on Health establishes environmental health management as an instrument for protecting communities from environmental risk factors that may adversely affect public health. This legal framework implies that facilities involved in food service activities must fulfill applicable environmental health requirements. The availability of safe water, proper waste management, adequate sanitation facilities, hygienic food processing areas, and appropriate personal hygiene practices among food handlers are therefore essential components of food safety within SPPGs. The fulfillment of these requirements represents a fundamental condition for minimizing contamination risks and ensuring that the nutritional objectives of the MBG Program are achieved without generating additional public health risks.

The fulfillment of environmental health standards in SPPGs is closely related to the effectiveness of governmental supervision, particularly the supervisory role of the Tanjungpinang City Health Office as a local government institution with responsibilities related to public health protection and environmental health management. Supervision may be implemented through environmental health inspections, guidance and training for food handlers, monitoring of sanitation facilities, assessment of hygiene practices, and evaluation of compliance with applicable regulatory standards (Ministry of Health of the Republic of Indonesia, 2024). Such supervisory functions are increasingly important as the number of SPPGs expands and the scale of meal distribution increases. In Tanjungpinang City, the operation of SPPGs involves the provision of daily meals to a large number of students, creating a substantial need for systematic, continuous, and accountable environmental health surveillance. Effective supervision is therefore not merely an administrative function but constitutes an institutional mechanism for identifying potential risks, assessing compliance, implementing corrective measures, and maintaining the quality and safety of public nutrition services.

The issue of environmental health supervision in the implementation of the MBG Program has received increasing scholarly attention, although previous studies have examined different dimensions of the problem. Makbul and Dharmawan (2026) identified inconsistencies in food safety certification policies for SPPGs that may contribute to fragmented implementation and emphasized the importance of an integrated supervisory framework. Fernandes (2021) demonstrated that environmental health supervision conducted by Regional Health Offices continues to encounter several institutional challenges, including limitations in human resources, inadequate supervisory intensity, and varying levels of compliance with food hygiene and sanitation standards. Suryanata et al. (2026) similarly demonstrated that effective environmental health supervision contributes to the prevention of environmental contamination and the improvement of sanitation standards in public service facilities. These findings collectively indicate that the effectiveness of governmental supervision has important implications for the protection of public health and the quality of services delivered through public institutions.

Despite the contributions of previous studies, the existing literature still presents limitations that create an opportunity for further investigation. Previous research has predominantly examined compliance with food safety regulations, the adequacy of sanitation facilities, food safety certification, or the general implementation of public health policies. The specific role of local government

institutions in supervising environmental health standards within SPPGs remains comparatively underexplored, particularly from the perspective of public administration. Moreover, previous studies have rarely analyzed supervision as a systematic managerial process consisting of standard determination, performance measurement, performance evaluation, and corrective action. This limitation is particularly relevant because effective supervision requires more than periodic inspection. It requires clearly defined standards, measurable indicators, systematic assessment of actual performance, identification of deviations, and implementation of corrective measures. Examining these dimensions provides a more comprehensive basis for assessing whether governmental supervision is capable of ensuring consistent compliance with environmental health requirements in SPPG operations.

The need for such an investigation has become increasingly important as the MBG Program continues to expand and its implementation involves a growing number of service units and beneficiaries. Tanjungpinang City represents a relevant setting for examining this issue because fourteen SPPGs operate within the city to provide daily meal services to students. The scale of these operations requires a supervisory system capable of ensuring that environmental health standards are consistently applied across facilities and operational processes. The temporary suspension of SPPG Mekar Sari by the National Nutrition Agency further illustrates the existence of operational challenges associated with compliance with established standards, sanitation requirements, and facility management. This condition indicates that the provision of nutritious meals must be accompanied by effective institutional supervision to prevent food safety risks and protect beneficiaries. The sustainability of the MBG Program therefore depends not only on the availability and nutritional adequacy of meals but also on the institutional capacity of government agencies to ensure compliance with environmental health requirements throughout the service delivery process.

Based on these considerations, this study aims to comprehensively analyze the role of the Tanjungpinang City Health Office in supervising environmental health standards within SPPGs implementing the MBG Program, with SPPG Mekar Sari serving as the case study. The analysis employs T. Hani Handoko's supervision theory as the principal analytical framework, consisting of four dimensions: standard setting, performance measurement, performance evaluation, and corrective action. The application of this framework enables the study to examine supervision as a systematic managerial process rather than merely as an inspection activity. The study contributes theoretically to the public administration literature by extending the discussion of governmental supervision to the implementation of public nutrition policy and environmental health management at the local level. Empirically, the study provides an examination of environmental health supervision within SPPG operations in Tanjungpinang City, an area that remains insufficiently explored in existing research. Practically, the findings are expected to provide an evidence based foundation for strengthening supervisory mechanisms implemented by the Tanjungpinang City Health Office, the National Nutrition Agency, and SPPG management, particularly in relation to food safety, sanitation compliance, environmental health protection, and the sustainability of the MBG Program.

RESEARCH METHODS

This study adopted a qualitative approach with a descriptive case study design to investigate the role of the Tanjungpinang City Health Office in supervising environmental health within the Nutritional Fulfillment Service Unit (*Satuan Pelayanan Pemenuhan Gizi* [SPPG]) under the implementation of the Free Nutritious Meals Program (*Program Makan Bergizi Gratis* [MBG]). A qualitative case study design was selected because it facilitates a comprehensive exploration of social phenomena within their natural settings while allowing for an in-depth examination of institutional practices, interactions, and supervisory mechanisms. This approach is particularly relevant for investigating environmental health supervision because supervisory activities involve administrative processes, policy implementation, interinstitutional coordination, and the interpretation of regulatory standards that cannot be adequately explained through quantitative measurement alone. SPPG Mekar Sari was selected as the case study because it represents one of the operational units responsible for implementing the MBG Program in Tanjungpinang City and has experienced challenges related to compliance with environmental health standards. The investigation focused on understanding how supervisory functions were implemented, how compliance with environmental health regulations was

monitored, and how corrective measures were formulated and applied within the operational context of the program.

Data collection was conducted through multiple techniques to obtain comprehensive and reliable information regarding environmental health supervision practices. Primary data were collected through semi-structured interviews, direct observations, and document analysis. Semi-structured interviews enabled the collection of detailed information concerning supervisory activities, institutional responsibilities, operational challenges, and policy implementation. Observations were conducted to examine sanitation facilities, food processing practices, environmental hygiene conditions, and the implementation of environmental health standards within SPPG operations. Documentary evidence was collected from institutional reports, inspection records, supervisory documents, and relevant administrative materials. Secondary data were obtained from legal documents, government regulations, official publications, policy reports, and scientific literature related to environmental health management, food safety, public administration, and the MBG Program. Research participants were selected through purposive sampling because this technique allows the identification of informants possessing direct knowledge and practical experience related to the research problem. The participants included representatives of the Tanjungpinang City Health Office, the head of SPPG Mekar Sari, school personnel involved in implementing the MBG Program, and members of the surrounding community who had direct interactions with program activities.

Data analysis followed the interactive model developed by Miles and Huberman, which consists of three interconnected stages: data reduction, data display, and conclusion drawing and verification. Data reduction involved the processes of selecting, classifying, organizing, and simplifying information obtained from multiple data sources. Data display was conducted through the systematic organization of information into thematic categories to facilitate interpretation and identify relationships among findings. The final stage involved drawing conclusions through continuous verification to ensure the consistency and accuracy of the analytical process. To enhance the credibility and trustworthiness of the findings, source triangulation and methodological triangulation were employed by comparing information obtained from interviews, observations, and documentary evidence. The analytical process was guided by T. Hani Handoko's supervision theory, which conceptualizes supervision as a managerial process consisting of four interrelated dimensions: standard setting, performance measurement, performance evaluation, and corrective action. These dimensions provided the conceptual framework for interpreting the empirical findings and evaluating the effectiveness of environmental health supervision implemented by the Tanjungpinang City Health Office within the operational environment of the MBG Program.

RESULTS AND DISCUSSION

Standard Setting in Environmental Health Supervision

Standard setting represents the foundation of an effective supervisory system because it establishes measurable benchmarks against which organizational performance can be evaluated. Within the context of the Free Nutritious Meals Program (MBG), environmental health standards serve not merely as administrative requirements but as preventive instruments for protecting public health through safe food production and distribution. According to Handoko (2016), supervision begins with the formulation of clear standards that guide organizational activities and provide objective criteria for subsequent monitoring and evaluation. Therefore, the effectiveness of environmental health supervision in the Nutritional Fulfillment Service Unit (SPPG) largely depends on the clarity, consistency, and applicability of the standards adopted by the responsible public institutions.

The findings indicate that the Tanjungpinang City Health Office has established environmental health supervision based on nationally recognized regulatory frameworks issued by the Ministry of Health. The principal guideline used during inspections is the Circular Letter of the Directorate General of Disease Prevention and Control No. HK.02.02/C/319/2024 concerning the supervision of ready-to-eat food safety within the MBG Program. This regulatory framework defines inspection procedures covering sanitation facilities, food handler hygiene, environmental cleanliness, water quality, and waste management. The adoption of standardized national guidelines demonstrates institutional commitment to ensuring consistency in supervisory practices across all SPPG facilities.

Interviews with officials from the Tanjungpinang City Health Office further revealed that the supervisory authority of the Health Office is specifically limited to environmental health and food hygiene, whereas nutritional assessment remains the responsibility of the National Nutrition Agency. This institutional division reflects the principle of functional specialization in public administration, enabling each governmental institution to focus on its respective area of expertise while minimizing administrative overlap. Such a governance arrangement also enhances accountability because each institution operates within clearly defined regulatory mandates. Consequently, environmental health supervision becomes an essential complementary component supporting the broader objectives of nutritional improvement under the MBG Program.

Evidence collected from SPPG Mekar Sari demonstrates that the established standards have been translated into operational practices through the implementation of hygiene protocols, sanitation procedures, and environmental management measures. Daily operational activities include the mandatory use of personal protective equipment by food handlers, regular sanitation of kitchen equipment, provision of clean water, periodic cleaning of food preparation areas, and systematic waste segregation. These practices indicate that environmental health standards are not merely documented regulations but have become integral components of routine operational management. Such institutionalization of standards reflects effective regulatory internalization, which is widely recognized as a prerequisite for sustainable food safety management (Makbul & Dharmawan, 2026).

Table 1. Implementation of Environmental Health Standards at SPPG Mekar Sari

Standard Component	Implementation Status	Evidence from Field Observation
Food handler hygiene	Implemented	Mandatory PPE and hygiene training
Kitchen sanitation	Implemented	Daily sanitation before and after production
Clean water supply	Implemented	Continuous access to safe water
Waste management	Implemented with improvements	Waste segregation and disposal procedures
Environmental cleanliness	Implemented	Routine environmental cleaning
Government inspection guideline	Fully adopted	Ministry of Health Circular Letter HK.02.02/C/319/2024

Source: Developed from field findings and interview results.

Table 1 illustrates that most environmental health standards required by the Ministry of Health have been implemented within SPPG Mekar Sari. Nevertheless, field observations also indicate that several operational components have required continuous improvement, particularly those related to environmental waste management during the initial stages of program implementation. The presence of corrective adjustments suggests that standard implementation should be regarded as a dynamic process rather than a static administrative obligation. This finding supports the argument that effective supervision should encourage continuous organizational learning rather than solely emphasize regulatory compliance (Fernandes, 2021).

The effectiveness of standard setting is further reflected in the involvement of multiple stakeholders beyond the Health Office itself. Interviews with school representatives revealed that schools routinely conduct preliminary inspections of food quality before meals are distributed to students, despite having no formal authority over environmental health supervision. This practice demonstrates the emergence of collaborative governance, in which different stakeholders contribute to maintaining food safety through complementary monitoring activities. Such inter-institutional collaboration strengthens the implementation of environmental health standards by creating additional layers of quality assurance throughout the food distribution process.

Community participation also emerged as an important component supporting the implementation of environmental health standards. Residents living near SPPG Mekar Sari acknowledged that environmental disturbances, particularly those associated with waste management, were observed during the initial operational period. Following complaints submitted by the

surrounding community, SPPG management improved waste disposal procedures and strengthened routine environmental sanitation, thereby reducing the negative environmental impacts of food production activities. These findings suggest that community feedback functions as an informal yet valuable supervisory mechanism capable of encouraging continuous improvements in environmental management (Suryanata et al., 2026).

From the perspective of Handoko's supervision theory, the findings demonstrate that standard setting within SPPG Mekar Sari satisfies the fundamental characteristics of effective managerial control. Clearly defined standards provide measurable performance expectations, facilitate objective supervision, and reduce ambiguity in operational implementation. Furthermore, standardized supervisory procedures enable inspectors to evaluate compliance using consistent criteria, thereby enhancing the reliability and transparency of supervisory outcomes. Consequently, environmental health standards function not only as regulatory instruments but also as managerial tools that support organizational accountability and service quality improvement (Handoko, 2016).

The present findings are generally consistent with previous studies emphasizing the importance of standardized supervision in ensuring food safety and environmental health. Makbul and Dharmawan (2026) argued that inconsistencies in food safety certification policies may undermine the effectiveness of the MBG Program if supervisory standards are not harmonized across institutions. Likewise, Fernandes (2021) reported that clearly defined supervisory procedures improve institutional performance by reducing uncertainty among implementing agencies. Unlike these previous studies, however, the present research demonstrates that the successful implementation of environmental health standards depends not only on regulatory clarity but also on the active participation of schools, communities, and SPPG managers, thereby extending the understanding of collaborative environmental health governance within public nutrition programs.

The findings indicate that the standard-setting dimension of environmental health supervision has been implemented effectively within SPPG Mekar Sari through the adoption of national regulatory standards, institutional coordination, and stakeholder participation. The Health Office has successfully translated national environmental health regulations into practical supervisory procedures that are consistently implemented during food production and distribution activities. Although several operational challenges were identified during the early implementation phase, continuous improvements undertaken by SPPG management demonstrate a strong commitment to regulatory compliance and organizational learning. These findings confirm that effective standard setting constitutes the essential foundation for subsequent supervisory stages—namely performance measurement, performance evaluation, and corrective action—thereby supporting the sustainable implementation of the Free Nutritious Meals Program in accordance with environmental health and food safety principles.

Performance Measurement in Environmental Health Supervision

Performance measurement constitutes the second stage of the supervisory process following the establishment of operational standards. According to Handoko (2016), this stage aims to determine whether organizational activities are implemented in accordance with predetermined standards through systematic observation, inspection, and evaluation. Within environmental health management, performance measurement provides empirical evidence regarding the degree of compliance achieved by implementing institutions while simultaneously identifying operational deviations requiring managerial intervention. Consequently, the quality of supervisory decisions largely depends on the accuracy, consistency, and objectivity of the measurement process adopted by supervisory authorities.

The findings demonstrate that the Tanjungpinang City Health Office has implemented a structured performance measurement system through periodic environmental health inspections conducted at SPPG Mekar Sari. These inspections evaluate multiple environmental health indicators, including sanitation facilities, food handler hygiene, kitchen cleanliness, water supply systems, waste management, and environmental conditions surrounding food preparation facilities. Rather than relying solely on administrative reports, inspectors perform direct field observations to assess the actual implementation of environmental health standards. Such an evidence-based approach enhances the credibility of supervisory outcomes by ensuring that evaluations accurately reflect operational conditions.

Interviews with Health Office officials revealed that environmental health inspections utilize standardized instruments issued by the Ministry of Health, namely the Environmental Health Inspection (IKL) Form and the specialized IKL checklist developed for the MBG Program. These standardized assessment tools provide measurable indicators covering building sanitation, food preparation facilities, waste disposal systems, food handler health, and environmental hygiene. The utilization of nationally standardized inspection instruments contributes to greater objectivity because supervisory decisions are based on predefined performance indicators rather than subjective judgment. This finding illustrates that standardized measurement instruments play an essential role in improving both the reliability and transparency of environmental health supervision.

The inspection system implemented by the Health Office is characterized by continuous rather than one-time supervision. According to field findings, environmental health inspections are conducted at least twice annually through collaborative activities involving Health Office personnel and local public health centers. Such periodic assessments enable supervisory authorities to monitor institutional compliance over time rather than merely evaluating conditions during initial program implementation. Continuous monitoring therefore supports adaptive management by allowing supervisors to identify emerging environmental health risks before they develop into significant food safety problems.

The effectiveness of performance measurement is further strengthened by internal monitoring mechanisms implemented by SPPG Mekar Sari. Management reported that routine internal inspections are conducted before external evaluations to ensure compliance with hygiene protocols, sanitation procedures, waste management standards, and the use of personal protective equipment by food handlers. This internal quality assurance system demonstrates that environmental health supervision extends beyond external governmental inspections and has become embedded within organizational management practices. Such findings support previous studies emphasizing that sustainable food safety is achieved through the integration of external supervision and internal organizational control (Fernandes, 2021; Makbul & Dharmawan, 2026).

Table 2. Performance Measurement Indicators Applied During Environmental Health Inspection

Performance Indicator	Assessment Method	Responsible Institution	Frequency
Food handler hygiene	Direct observation	Health Office	Periodic
Kitchen sanitation	Environmental inspection	Health Office	Periodic
Clean water quality	Facility inspection	Health Office	Periodic
Waste management	Observation and documentation	Health Office & SPPG	
Building sanitation	Environmental Health Inspection Form (IKL)	Health Office	Twice annually
Internal hygiene monitoring	Internal supervision	SPPG Management	Daily

Source: Compiled from field interviews and environmental health inspection findings.

The findings also reveal that performance measurement is reinforced through the active participation of beneficiary institutions, particularly schools receiving meals from SPPG Mekar Sari. School representatives routinely conduct visual inspections of food quality, packaging integrity, temperature, cleanliness, and overall acceptability before meals are distributed to students. Although these activities do not constitute formal environmental health inspections, they function as an additional quality control mechanism capable of identifying potential food safety concerns at an early stage. This collaborative monitoring system demonstrates that effective environmental health supervision extends beyond governmental inspections and incorporates stakeholder participation throughout the service delivery process.

Community perceptions further enrich the performance measurement process by providing external assessments of the environmental impacts generated by SPPG operations. Residents living

near SPPG Mekar Sari reported that environmental conditions had improved considerably following the implementation of corrective measures addressing waste disposal and sanitation management. Nevertheless, some respondents continued to express concerns regarding operational noise generated during food preparation activities, indicating that certain environmental issues remain unresolved despite improvements in sanitation performance. These findings suggest that environmental health performance measurement should encompass not only technical compliance indicators but also broader community perceptions regarding environmental quality and public well-being.

From the perspective of Handoko's managerial supervision theory, performance measurement represents a critical mechanism for determining whether organizational activities conform to established operational standards. The standardized inspection procedures implemented by the Tanjungpinang City Health Office demonstrate that supervisory activities are conducted systematically using measurable indicators rather than subjective assessments. Such an approach strengthens managerial accountability because performance evaluations are supported by empirical evidence collected through structured field observations and official inspection instruments. Consequently, the measurement process provides a reliable foundation for subsequent stages of performance evaluation and managerial decision-making (Handoko, 2016).

The present findings are consistent with previous studies emphasizing the importance of systematic inspection and performance measurement in environmental health governance. Fernandes (2021) argued that the effectiveness of environmental health supervision depends largely on regular inspections supported by adequate institutional capacity and standardized assessment procedures. Likewise, Suryanata et al. (2026) demonstrated that structured environmental monitoring significantly improves sanitation management and reduces environmental contamination within public service facilities. Unlike previous studies, however, the present research highlights that performance measurement within the MBG Program is strengthened through the integration of governmental inspections, internal organizational monitoring, school-based quality control, and community participation, thereby creating a more comprehensive and adaptive supervisory framework.

The findings indicate that the performance measurement dimension of environmental health supervision has been implemented effectively through standardized inspection procedures, periodic monitoring, and multi-stakeholder participation. The Health Office has established a structured inspection system capable of generating objective information regarding compliance with environmental health standards, while SPPG management has strengthened supervisory outcomes through continuous internal monitoring. The involvement of schools and local communities further enhances supervisory effectiveness by expanding the sources of performance information beyond formal governmental inspections. Collectively, these findings demonstrate that comprehensive performance measurement constitutes a fundamental prerequisite for evidence-based environmental health governance and provides a robust basis for the subsequent stage of performance evaluation, where inspection results are systematically assessed to determine institutional compliance and identify areas requiring corrective intervention.

Performance Evaluation and Corrective Action in Environmental Health Supervision

Performance evaluation and corrective action constitute the final stages of the supervisory cycle, serving to determine whether measured performance has achieved established standards and to formulate appropriate managerial responses when deviations are identified. According to Handoko (2016), supervision cannot be considered effective unless inspection findings are translated into evaluation results that guide corrective interventions and continuous organizational improvement. Within environmental health management, this stage is particularly important because deficiencies in sanitation or food safety require immediate action to prevent adverse public health consequences. Consequently, performance evaluation and corrective action transform supervision from a compliance-oriented activity into a continuous quality improvement process.

The findings indicate that the Tanjungpinang City Health Office systematically evaluates inspection results following each environmental health assessment conducted at SPPG Mekar Sari. Inspection outcomes are documented using standardized reporting instruments, allowing supervisors to identify areas that comply with national environmental health regulations as well as operational components requiring improvement. Rather than limiting supervision to administrative reporting, evaluation meetings are conducted with SPPG management to discuss inspection findings and

formulate practical recommendations for improvement. This participatory evaluation process strengthens organizational commitment to implementing corrective actions while promoting transparency and accountability within environmental health governance.

Interviews with Health Office officials revealed that corrective recommendations primarily focus on sanitation management, waste disposal systems, food handler hygiene, environmental cleanliness, and compliance with operational procedures established by the Ministry of Health. Supervisors emphasized that identified deficiencies are addressed through technical guidance and continuous mentoring rather than punitive enforcement during the early stages of program implementation. Such an approach reflects the preventive orientation of public health supervision, where institutional learning and capacity building are prioritized to improve long-term compliance. Consequently, corrective action is regarded as an integral component of organizational development rather than merely a mechanism for identifying non-compliance.

Evidence from SPPG Mekar Sari demonstrates that corrective recommendations issued by the Health Office have resulted in measurable operational improvements. During the initial implementation phase, waste management practices generated concerns among nearby residents because food waste disposal was not yet fully optimized. Following supervisory evaluations, SPPG management improved waste segregation procedures, enhanced environmental sanitation, and strengthened routine cleaning schedules, thereby substantially reducing environmental disturbances reported by the surrounding community. These findings illustrate how supervisory feedback can directly contribute to improvements in environmental health performance through evidence-based managerial decision-making.

Another important finding concerns the institutional coordination established between the Health Office, the National Nutrition Agency, public health centers, schools, and SPPG management during the evaluation process. Each institution performs complementary functions according to its respective authority, enabling corrective measures to be implemented efficiently without creating overlapping responsibilities. This collaborative governance structure facilitates the rapid dissemination of inspection findings and accelerates the implementation of technical recommendations across operational units. Such inter-organizational coordination has been widely recognized as a critical determinant of successful public health governance and effective food safety management (Fernandes, 2021; Suryanata et al., 2026).

Table 3. Performance Evaluation Results and Corrective Actions at SPPG Mekar Sari

Evaluation Aspect	Initial Finding	Corrective Action	Outcome
Waste management	Waste handling required improvement	Improved segregation and disposal procedures	Environmental cleanliness improved
Food handler hygiene	Minor procedural inconsistencies	Technical guidance and monitoring	Compliance increased
Kitchen sanitation	Periodic adjustments required	Enhanced sanitation schedule	Better hygiene conditions
Environmental cleanliness	Community complaints during early implementation	Routine environmental cleaning	Complaints significantly reduced
Inter-agency coordination	Coordination strengthened	Regular evaluation meetings	More integrated supervision

Source: Compiled from field interviews, observation, and environmental health supervision records.

The evaluation process also demonstrates that corrective actions are implemented through a continuous improvement approach rather than as isolated responses to individual inspection findings. Follow-up inspections conducted by the Tanjungpinang City Health Office confirmed that recommendations issued during previous supervisory visits had been incorporated into the daily operational practices of SPPG Mekar Sari. This iterative process illustrates that environmental health supervision functions as a cyclical management system in which inspection, evaluation, feedback, and improvement are interconnected components supporting long-term organizational performance. Such

findings reinforce the argument that sustainable food safety management requires continuous monitoring accompanied by systematic organizational learning rather than sporadic regulatory enforcement.

The findings further indicate that the effectiveness of corrective actions depends substantially on institutional commitment among implementing organizations. Interviews revealed that SPPG management demonstrated a proactive attitude toward addressing deficiencies identified during environmental health inspections by allocating resources for sanitation improvements, strengthening internal monitoring, and ensuring compliance with hygiene protocols. This organizational responsiveness reflects an adaptive management culture in which supervisory recommendations are perceived as opportunities for institutional improvement rather than administrative burdens. Consequently, corrective actions become more sustainable because they are supported by internal organizational commitment instead of relying solely on external governmental control.

From the perspective of Handoko's supervision theory, the findings confirm that performance evaluation and corrective action represent indispensable elements of an effective managerial control system. Evaluation provides managers with objective information regarding organizational performance, whereas corrective action ensures that identified deviations are addressed through appropriate managerial interventions. The environmental health supervision implemented by the Tanjungpinang City Health Office demonstrates that these two supervisory dimensions operate in an integrated manner through periodic inspections, technical guidance, institutional coordination, and continuous monitoring. Accordingly, supervision extends beyond identifying operational deficiencies and functions as a strategic management instrument for improving organizational effectiveness and public service quality (Handoko, 2016).

The present findings are consistent with previous studies emphasizing that effective environmental health governance requires not only comprehensive inspection systems but also timely implementation of corrective measures. Fernandes (2021) argued that the effectiveness of public health supervision is strongly influenced by institutional capacity to transform inspection findings into practical managerial improvements. Similarly, Suryanata et al. (2026) reported that continuous environmental evaluation contributes significantly to sanitation improvement and environmental risk reduction within public service facilities. In addition, Makbul and Dharmawan (2026) highlighted the importance of integrated governance in ensuring that food safety policies are implemented consistently across responsible institutions. Compared with these previous studies, the present research contributes new empirical evidence by demonstrating that corrective actions within the MBG Program are strengthened through collaborative governance involving the Health Office, the National Nutrition Agency, public health centers, educational institutions, SPPG management, and local communities, thereby expanding the current understanding of environmental health supervision at the local government level.

The findings indicate that the dimensions of performance evaluation and corrective action have been implemented effectively through systematic evaluation procedures, evidence-based decision-making, institutional collaboration, and continuous organizational improvement. The supervisory system established by the Tanjungpinang City Health Office enables inspection findings to be translated into practical recommendations that improve sanitation management, environmental cleanliness, food safety practices, and institutional compliance with national regulations. More importantly, the integration of standard setting, performance measurement, performance evaluation, and corrective action confirms the applicability of T. Hani Handoko's supervision theory in explaining environmental health supervision within the implementation of the Free Nutritious Meals Program (MBG). These findings enrich the public administration literature by demonstrating that effective environmental health supervision depends not only on regulatory compliance but also on collaborative governance, adaptive institutional learning, and continuous quality improvement, thereby providing both theoretical contributions and practical recommendations for strengthening the sustainability of the MBG Program.

CONCLUSION

This study demonstrates that the environmental health supervision conducted by the Tanjungpinang City Health Office has played a significant role in supporting the implementation of the Free Nutritious Meals Program (MBG) at SPPG Mekar Sari. Based on T. Hani Handoko's

supervision framework, the four dimensions of supervision—standard setting, performance measurement, performance evaluation, and corrective action—have been implemented systematically through the adoption of national environmental health standards, periodic inspections, standardized assessment instruments, and collaborative monitoring involving the Health Office, public health centers, schools, SPPG management, and the local community. The findings indicate that this integrated supervisory mechanism has contributed to improving sanitation management, food hygiene practices, environmental cleanliness, and institutional compliance with environmental health regulations.

Despite these positive findings, several operational challenges remain, particularly regarding the need for continuous monitoring, stronger inter-agency coordination, and sustained institutional commitment to maintaining environmental health standards. Therefore, strengthening supervisory capacity through regular inspections, continuous technical assistance, digital monitoring systems, and broader stakeholder participation is essential for ensuring the long-term sustainability of the MBG Program. The study contributes to the public administration literature by extending the application of Handoko's supervision theory to environmental health governance within public nutrition programs and provides practical recommendations for improving environmental health supervision at the local government level.

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