

EVALUATING THE STUNTING REDUCTION POLICY IN BARRU REGENCY: TOWARD A SUSTAINABLE POLICY EVALUATION MODEL

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Abstract. *Stunting remains a critical development issue that affects the quality of human resources. In Indonesia, stunting reduction has been positioned as a national policy priority through a cross-sectoral convergence approach. Barru Regency achieved a significant reduction in stunting prevalence in 2022; however, this progress was not maintained, as prevalence increased again in subsequent years. This study aims to evaluate the implementation of the stunting reduction policy in Barru Regency and to develop the Sustainable Stunting Policy Evaluation Model (SSPEM) as a conceptual framework for assessing policy sustainability. This study employs a descriptive qualitative approach with a case study design based on secondary document analysis. The documents analysed include the Indonesian Nutritional Status Survey (SSGI) reports for 2021, 2022, and 2024; the 2023 Indonesian Health Survey (SKI); the 2024 Report of the South Sulawesi Provincial Stunting Reduction Acceleration Team (TPPS); Barru Regent Regulation Number 41 of 2022; and relevant scientific publications. The evaluation was conducted using Theory of Change, Logic Model, and SWOT analysis. The findings indicate that the policy design has a sound program logic and is supported by various local innovations. However, its implementation has not been sustained due to weak implementation consistency, limited intervention coverage, and an insufficiently optimized monitoring system. This study proposes SSPEM as a preliminary conceptual model that positions implementation sustainability as a key factor linking outcomes and impacts. The model may serve as an evaluation framework for local governments seeking to strengthen the effectiveness and sustainability of stunting reduction policies, although further empirical testing and validation are required.*

Keywords: *Logic Model; Policy Evaluation; Stunting; SWOT; SSPEM; Theory of Change*

1. INTRODUCTION

Stunting is a condition of failure to thrive caused by chronic malnutrition during the first 1,000 days of life (HPK), which affects physical and cognitive development, productivity, and the quality of human resources. Therefore, stunting is not only a health problem but also a strategic development issue that requires sustained cross-sectoral intervention (Vaivada et al., 2020).

The Government of Indonesia has established the acceleration of stunting reduction as a national priority through Presidential Regulation Number 72 (2021). This regulation applies a convergence approach that integrates specific and sensitive nutrition interventions. The success of this policy depends heavily on cross-sectoral coordination, local government commitment, and consistency in program implementation at the regional level (Herawati & Sunjaya, 2022).

Barru Regency is one of the regions that demonstrates policy implementation dynamics relevant for examination. Stunting prevalence was recorded at 26.4% in the 2021 SSGI, then decreased to 14.1% in the 2022 SSGI. However, this achievement could not be sustained, as

prevalence increased again to 22.1% based on the 2023 SKI and 26.9% in the 2024 SSGI (Ministry of Health of the Republic of Indonesia, 2022, 2023, 2024, 2025). The Barru Regency Government has developed various innovations, including Mpok Darti (Stunting Awareness Group), One Day One Egg, the Movement to Overcome Stunting Based on Local Food (GASPOL), strengthening of Posyandu (integrated health service posts), and the Stop Stunting Action (ASS). Nevertheless, the renewed increase in stunting prevalence indicates that policy implementation gains have not been sustained over time.

Various previous studies, such as Muliadi et al. (2025) and Samsudin et al. (2023), have primarily evaluated the effectiveness of stunting reduction acceleration policy implementation. These studies generally focus on the convergence approach, achievement of program indicators, or the relationship between nutrition interventions and stunting prevalence. However, few studies have integrated Theory of Change, Logic Model, and SWOT analysis into a single evaluation framework to explain the sustainability of stunting reduction policy implementation at the subnational level. This gap indicates the need for an evaluation model that not only measures program achievement but also explains the factors that determine the sustainability of policy outcomes (Breuer et al., 2016; McLaughlin & Jordan, 1999).

Based on these issues, this study aims to evaluate the implementation of the stunting reduction policy in the Barru Regency Government using Theory of Change, Logic Model, and SWOT analysis. This study also develops the Sustainable Stunting Policy Evaluation Model (SSPEM) as a conceptual model for evaluating the sustainability of stunting reduction acceleration policy implementation at the local government level.

2. LITERATURE REVIEW

2.1 *Stunting and the Stunting Reduction Acceleration Policy*

Stunting is a condition of failure to thrive in children caused by chronic malnutrition, occurring primarily during the first 1,000 days of life. Its impact includes not only impaired physical growth but also declines in cognitive development, productivity, and health quality into adulthood. Because it is multidimensional in nature, addressing stunting requires integrated and sustained intervention (Vaivada et al., 2020).

In Indonesia, the acceleration of stunting reduction is implemented through a convergence approach that integrates specific and sensitive nutrition interventions, involving the central government, local governments, health workers, village governments, and the community. The effectiveness of the policy is strongly determined by local government commitment, cross-sectoral coordination, institutional capacity, and the sustainability of program implementation (Herawati & Sunjaya, 2022).

Research indicates that the success of stunting reduction is influenced not only by intervention coverage but also by the quality of implementation and program continuity. Therefore, policy evaluation needs to assess not only program achievements but also the factors that influence the sustainability of policy outcomes (Muliadi et al., 2025).

2.2 *Theory of Change in Policy Evaluation*

Theory of Change is an evaluation approach that explains how a policy produces change through causal relationships among inputs, activities, outputs, outcomes, and impacts. This approach helps identify assumptions, contextual factors, and critical points that influence the success of policy implementation (Breuer et al., 2016).

In public policy evaluation, *Theory of Change* is widely used to explain the mechanisms of change in programs involving multiple actors and cross-sectoral interventions. Through this

approach, evaluators can assess whether the expected changes actually occur and identify the causes of success or failure in policy implementation (De Silva et al., 2014).

2.3 Logic Model as a Program Evaluation Framework

Logic Model describes the systematic relationships among inputs, activities, outputs, outcomes, and impacts as the basis for program evaluation. Unlike *Theory of Change*, which emphasizes the mechanism of change, *Logic Model* is oriented toward measuring performance at each stage of implementation, thereby facilitating the identification of gaps between program implementation and the results achieved (McLaughlin & Jordan, 1999).

In the evaluation of stunting reduction policy, *Logic Model* is used to assess the linkages among resources, the implementation of convergence interventions, changes in community behavior, and the impact on reducing stunting prevalence. This approach enables a more systematic and measurable evaluation at each stage of implementation (McLaughlin & Jordan, 1999).

2.4 SWOT Analysis in Public Policy Evaluation

Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is a method used to identify internal and external factors that influence the success of a policy. This analysis helps formulate strategies to strengthen implementation by leveraging strengths and opportunities while reducing the weaknesses and threats faced by an organization (Ghazinoory et al., 2011).

In the evaluation of stunting reduction policy, SWOT analysis provides a basis for identifying strategic factors that influence implementation success at the local government level. The results of this analysis serve as inputs for formulating policy recommendations that are more adaptive and sustainable in accordance with local conditions (Samsudin et al., 2023).

3. RESEARCH METHODS

This study employs a descriptive qualitative approach with a case study design to evaluate the implementation of the stunting reduction policy in the Barru Regency Government. This approach was selected for its ability to provide an in-depth understanding of policy implementation within the local government context. The main aspects of focus include cross-sectoral coordination, implementation effectiveness, and the sustainability of the stunting reduction program (Breuer et al., 2016).

The research data are secondary data obtained from the Indonesian Nutritional Status Survey (SSGI) for 2021, 2022, and 2024, the 2023 Indonesian Health Survey (SKI), and the 2024 Report of the South Sulawesi Provincial Stunting Reduction Acceleration Team (TPPS). Other data sources include Barru Regent Regulation Number 41 of 2022 concerning the Role of Villages in Integrated Stunting Reduction Acceleration, as well as various relevant scientific publications. Data collection was conducted through document analysis to analyze the development of stunting prevalence, policy implementation, and various stunting reduction acceleration innovations in Barru Regency. The documents were analyzed using content analysis techniques to identify the relationships among policy implementation, program achievements, and the factors influencing the sustainability of implementation.

Data analysis was conducted descriptively and qualitatively using three complementary approaches: Theory of Change, Logic Model, and SWOT analysis. Theory of Change was used to identify the mechanisms of change and causal assumptions in policy implementation, while Logic Model was used to evaluate the linkages among *inputs, activities, outputs, outcomes*, and

impacts. SWOT analysis was used to identify the internal and external factors influencing the success of policy implementation. Subsequently, the data were analyzed by interpreting the relationships among documents based on these three evaluation frameworks. Data validity was maintained through source triangulation by comparing various official documents and relevant scientific publications (Breuer et al., 2016; Ghazinoory et al., 2011; McLaughlin & Jordan, 1999).

4. RESULTS AND DISCUSSION

4.1 Dynamics of the Stunting Reduction Policy in Barru Regency

The Barru Regency Government has positioned the acceleration of stunting reduction as a regional development priority through a convergence policy. This policy involves regional government organizations (OPD), the Stunting Reduction Acceleration Team (TPPS), village governments, health workers, the Family Welfare Movement (TP PKK), and various stakeholders. Policy implementation is carried out by integrating specific and sensitive nutrition interventions through cross-sectoral coordination, in line with the national stunting reduction acceleration policy (Herawati & Sunjaya, 2022).

In its implementation, the Barru Regency Government has developed various innovations, such as Mpok Darti, One Day One Egg, GASPOL, and the Stop Stunting Action. These innovations reflect the local government's commitment to strengthening family- and community-based interventions as an effort to accelerate stunting reduction. However, the effectiveness of these innovations declined after peaking in 2022. The surge in stunting prevalence in 2023 and 2024 indicates the presence of structural obstacles in maintaining the consistency of these local movements. Programs that were initially implemented extensively at the grassroots level gradually faced operational constraints. This condition requires an in-depth evaluation of the resilience and sustainability of the program beyond the intervention focus period.

4.2 Policy Evaluation Using Theory of Change

Evaluation using *Theory of Change* shows that the stunting reduction policy in Barru Regency already has a logical pathway of change. This pathway begins with inputs in the form of regulations, funding, human resources, local government commitment, and cross-sectoral coordination. These inputs are implemented through various activities, such as the provision of supplementary food, nutrition education, mentoring for families at risk of stunting, strengthening of Posyandu services, and various regional innovations (Breuer et al., 2016).

The implementation of these activities generated outputs in the form of increased coverage of maternal and child health services, mentoring for at-risk families, and the implementation of convergence interventions in targeted villages. These outputs are expected to produce outcomes such as increased family knowledge, changes in healthy lifestyle behavior, and improved nutritional status among children under five, ultimately impacting the reduction of stunting prevalence (De Silva et al., 2014).

However, the evaluation results show that the relationship between *outcome* and *impact* has not functioned optimally. The reduction in stunting prevalence in 2022 could not be sustained due to inconsistent implementation, limited intervention coverage, and cross-sectoral coordination that was not yet optimal. These findings indicate that the main challenge of the policy lies not in program design but in the sustainability of implementation, which determines the achievement of long-term impact (Breuer et al., 2016).

4.3 Policy Evaluation Using Logic Model

Evaluation using *Logic Model* shows that policy implementation already has clear linkages among inputs, activities, outputs, outcomes, and impacts. Support in the form of regulations, funding, human resources, and institutional capacity through TPPS forms the basis for implementing integrated specific and sensitive nutrition interventions (McLaughlin & Jordan, 1999).

Program implementation has produced substantial outputs, marked by increased mentoring for at-risk families, nutrition education, distribution of supplementary food, and community participation in Posyandu activities. However, these achievements have not fully produced evenly distributed outcomes, as most interventions remain focused on the targeted villages. The evaluation results indicate a gap among outputs, outcomes, and impacts. The success of the program in the target villages has not been able to consistently reduce stunting prevalence at the regency level, due to uneven intervention coverage and a lack of implementation sustainability. These findings confirm that policy effectiveness is determined not only by the successful implementation of activities but also by the equitable distribution of the program and the quality of implementation governance (McLaughlin & Jordan, 1999).

4.4 SWOT Analysis of the Stunting Reduction Policy

The SWOT analysis shows that the main strengths of the Barru Regency Government lie in the commitment of the regional head, cross-sectoral collaboration, and the involvement of TP PKK. This strength is reinforced by various community-based innovations, such as Mpok Darti, One Day One Egg, and GASPOL. The success in reducing stunting prevalence in 2022 serves as important capital in strengthening policy implementation (Ghazinoory et al., 2011).

On the other hand, this study identifies several weaknesses. These weaknesses include the lack of program implementation sustainability, intervention coverage that remains focused on targeted villages, an inter-agency data system that has not yet been integrated, and a weak monitoring system. These conditions have limited the long-term sustainability of program achievements (Herawati & Sunjaya, 2022).

External factors indicate opportunities in the form of national policy support, the use of information technology for digital-based monitoring, and the potential to replicate innovations across all villages. However, these opportunities are also faced with several threats, namely changes in regional leadership, limited funding, and data quality issues. The socioeconomic conditions of the community also have the potential to influence the effectiveness of policy implementation (Samsudin et al., 2023).

Overall, the results of the SWOT analysis indicate that policy success is largely determined by the local government's ability to leverage its strengths and opportunities while addressing its weaknesses and threats. Therefore, strengthening governance, integrating data, ensuring equitable intervention distribution, and enhancing cross-sectoral coordination are the main strategies for achieving sustainable stunting reduction.

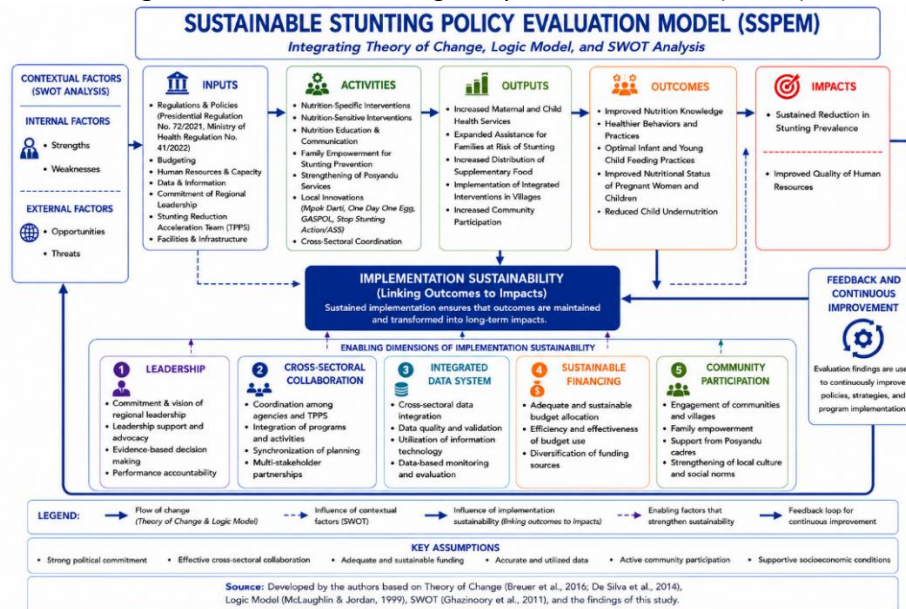
This analysis also identifies community participation as a distinct strategic factor. The involvement of TP PKK and Posyandu cadres, as found in the *Logic Model* evaluation (Section 4.3), constitutes social capital that supports the implementation of interventions at the village level. However, this involvement remains concentrated in the targeted villages and has not been accompanied by institutionalized participation mechanisms beyond the intervention period. This condition represents a weak point that needs to be strengthened so that program sustainability does not depend on the momentum of a particular program.

4.5 Sustainable Stunting Policy Evaluation Model (SSPEM)

The evaluation results show that the success of stunting reduction acceleration in Barru Regency is determined not only by the implementation of nutrition interventions but also by the sustainability of policy implementation. The significant reduction in stunting prevalence in 2022 could not be sustained in subsequent years. This condition indicates that the relationship among *outputs*, *outcomes*, and *impacts* has not been sustained over time (Breuer et al., 2016; McLaughlin & Jordan, 1999).

Based on these findings, this study proposes the Sustainable Stunting Policy Evaluation Model (SSPEM) as an initial conceptual model that integrates *Theory of Change*, *Logic Model*, and SWOT analysis into a single evaluation framework. This model positions *implementation sustainability* as the linking factor between *outcomes* and *impacts*. Accordingly, policy success is measured not only by program achievements but also by the ability to sustain implementation outcomes over the long term.

Figure 1. Sustainable Stunting Policy Evaluation Model (SSPEM)



As shown in Figure 1, SSPEM integrates *Theory of Change*, *Logic Model*, and SWOT analysis into a single, cohesive evaluation framework. The novelty of this model lies in positioning implementation sustainability as a mediating variable that links *outcome* to *impact*. Implementation sustainability is reinforced by five main dimensions—leadership, cross-sectoral collaboration, integrated data system, sustainable financing, and community participation—which form a continuous improvement mechanism through policy feedback.

These five dimensions are not generic categories developed separately from the field findings, but rather the result of tracing back to the evaluation results presented in the preceding sections. The leadership dimension is derived from the SWOT analysis findings regarding the regional head's commitment as a key strength (Section 4.4). The cross-sectoral collaboration dimension refers to cross-sectoral coordination identified as an input in the Theory of Change (Section 4.2), as well as an implementation weakness in the SWOT analysis (Section 4.4). The integrated data system dimension is derived from the weakness of the as-yet unintegrated inter-agency data system, as well as the opportunity to use information technology for digital-based

monitoring (Section 4.4). The sustainable financing dimension refers to the threat of limited funding identified in the SWOT analysis (Section 4.4). The community participation dimension is derived from the Logic Model findings regarding community participation in Posyandu activities (Section 4.3), as well as the social capital of TP PKK and its cadres identified in the SWOT analysis (Section 4.4). Accordingly, each dimension has an explicit and traceable evidentiary basis, rather than being merely assumed to apply generally.

These five dimensions were formulated empirically from the results of evaluating the implementation of the stunting reduction acceleration policy in Barru Regency using Theory of Change, Logic Model, and SWOT analysis. This formulation was further reinforced by the literature on the sustainability of health policy implementation (Herawati & Sunjaya, 2022), as well as the literature on the importance of sustained nutrition interventions for stunting reduction (Vaivada et al., 2020). These five dimensions were formulated inductively from a single case study and are grounded in a still-limited body of supporting literature. Therefore, at this stage, SSPEM stands as a preliminary conceptual model of a provisional nature, rather than a fully operational evaluation model. This model requires empirical validation through comparative cross-regional studies and expert judgment before it can be widely applied as a policy evaluation model.

CONCLUSION

This study shows that the implementation of the stunting reduction acceleration policy in Barru Regency has been carried out through a cross-sectoral convergence approach and supported by various regional innovations. Evaluation using *Theory of Change* and *Logic Model* shows that the *inputs*, *activities*, and *outputs* have functioned well, but have not fully produced sustainable *outcomes* and *impacts*. SWOT analysis identifies that implementation consistency, data integration, equitable distribution of interventions, cross-sectoral coordination, and the monitoring system remain factors that influence policy effectiveness.

The main contribution of this study is the development of the Sustainable Stunting Policy Evaluation Model (SSPEM) as a conceptual model that integrates *Theory of Change*, *Logic Model*, and SWOT analysis. This model positions *implementation sustainability* as the key factor bridging the relationship between *outcomes* and *impacts*. This model extends the policy evaluation approach by emphasizing that implementation sustainability is a prerequisite for achieving long-term policy impact.

Because it was developed from a single case study based on secondary data, SSPEM remains conceptual and requires further validation through *expert judgment*, multi-case comparative studies, or quantitative approaches. Further research in various regions with different institutional and fiscal characteristics is needed to test the validity and enhance the generalizability of the model. Accordingly, this model can be used as a policy evaluation framework for stunting reduction acceleration at the local government level.

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