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Why Has Indonesia's Stunting Policy Not Yet Performed Optimally? A Qualitative Multiple Case Study of High Burden Provinces, Budget Commitment, and Policy Outcomes

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Abstract

Stunting remains a major challenge in Indonesia despite decade long policies and increased budgets. This study explores why progress varies across regions, selecting four contrasting provinces: three high burden and one comparison province, and using qualitative case studies within a theoretical framework. National prevalence dropped from 24.4% in 2021 to 19.8% in 2024, but high burdens persist in Highland Papua, East Nusa Tenggara, and West Sulawesi. Four main issues hinder progress: uneven implementation capacity, weak translation of budgets into services, gaps in nutrition and WASH coverage, and persistent local factors like remoteness and poverty. Budget growth alone is insufficient; increased allocations in 2023–2024 resulted in a reduction in realization rates, from 97% to 78%. Insights from other countries suggest Indonesia needs better targeting, institutional stability, monitoring, and intergovernmental coordination. The article advances policy analysis by integrating theory with empirical and qualitative approaches to understand solutions to stunting.

1. Introduction

Stunting is not merely a nutrition indicator; it is a strategic public policy problem because it compresses cognitive development, educational achievement, labour productivity, and long-term human capital formation (Black et al., 2013; Prendergast & Humphrey, 2014; Subramanian et al., 2016). For Indonesia, the issue is even more consequential because the country links stunting reduction directly to demographic dividend management, social equity, and the quality of future economic growth. The policy importance of stunting, therefore, extends beyond the health sector and into the core domains of public policy, intergovernmental relations, and state capacity.

The international monitoring framework also situates stunting within a continuing global nutrition challenge: the 2023 Joint Child Malnutrition Estimates report insufficient progress towards global nutrition targets (UNICEF, World Health Organization, & World Bank Group, 2023). This reinforces the need to examine both aggregate progress and the distribution of effective interventions within countries.

Indonesia has achieved measurable progress at the national level. National stunting prevalence declined from 24.4% in 2021 to 21.6% in 2022, stagnated at 21.5% in 2023, and fell again to 19.8% in 2024 (Health Development Policy Agency, Ministry of Health of the Republic of Indonesia, 2024; Ministry of Health of the Republic of Indonesia, 2025a, 2025b). The 2021–2024 reduction of 4.6 percentage points is substantial, yet it still fell short of the earlier 2024 target of 14%. More importantly, the national average conceals deep territorial inequalities. In the 2024 survey, the highest prevalence was still recorded in Highland Papua Province (40.0%), followed by East Nusa Tenggara Province (37.0%), West Sulawesi (35.4%), Central Papua Province (32.5%), Southwest Papua (30.5%), Nusa Tenggara Barat (29.8%), Aceh Province (28.6%), and Maluku Province (28.4%). These figures indicate that policy gains are real but spatially uneven, particularly across frontier, archipelagic, and historically underserved regions.

The policy architecture is, on paper, already substantial. Since the National Strategy for the Acceleration of Stunting Prevention and Presidential Regulation No. 72 of 2021, Indonesia has adopted convergent

interventions that combine nutrition-specific, nutrition-sensitive, and enabling interventions across ministries and subnational governments. The state has also developed budget tagging instruments, district or city level performance assessments, family assistance teams, and cross-sectoral convergence actions. However, the persistence of very high prevalence in several provinces suggests that the central policy design has not been translated into equally effective local implementation. The World Bank (2018) similarly frames Indonesia's stunting challenge as one requiring coordinated action across sectors and levels of government. This perspective motivates the present focus on how policy commitments are translated into services reaching the same households.

This situation reveals a paradox. Indonesia's stunting policy is politically prioritized, financially visible, and administratively routinized, yet its performance remains uneven and suboptimal in several territories. This paradox is significant because it challenges the common assumption in policy practice that stronger political commitment, additional regulations, and larger budgets will automatically yield better outcomes. In practice, policy effectiveness depends on the interaction among institutions, organizational incentives, service delivery systems, and local context.

Three gaps motivate this article. First, there is a research gap. Existing Indonesian studies are dominated by determinant-based public health analysis or single site governance studies, while relatively few studies connect national trend data, budget commitment, output coverage, and outcomes through a comparative subnational design (Beal et al., 2018; Titaley et al., 2019). Second, national averages obscure territorial inequality. National progress narratives often obscure the fact that high-burden provinces remain clustered in eastern Indonesia and other structurally disadvantaged settings. Third, theoretical frameworks explaining variation in implementation are underdeveloped. Much of the literature describes implementation problems, but fewer studies use a theory driven policy framework to explain why the same national policy performs unevenly across subnational contexts.

This article addresses these gaps in a broader qualitative multiple-case study of Indonesia. Four cases were selected for analytical contrast: three high burden provinces Highland Papua Province, East Nusa Tenggara Province, and West Sulawesi were chosen due to their consistently high stunting prevalence in recent national surveys, while Bali Province was included as a lower-burden comparator to highlight contextual differences in governance and service delivery. The selection aimed not at statistical representativeness but at enabling comparative analysis between diverse territorial and institutional settings. Data sources include time-series national stunting data from the Indonesian Health Survey (SKI) and Indonesian Nutrition Status Survey (SSGI), Ministry of Finance budget documents, the Directorate General of Fiscal Balance budget-tagging and evaluation reports, as well as authoritative peer-reviewed journal articles and policy reports. These sources were systematically reviewed to triangulate evidence about prevalence trends, fiscal commitment and execution, output coverage, and contextual determinants at the national and provincial levels. The study is guided by new institutionalism as a grand theory of public policy and by realist evaluation as an applied evaluative framework. Its central question is straightforward but policy-relevant: Why has Indonesia's stunting policy not yet performed optimally in reducing stunting in several regions of the country?

2. Literature Review, Research Gap, and Analytical Framework

The literature on stunting in Indonesia is strong in identifying determinants but less developed in explaining policy performance. Beal et al. (2018) demonstrate that a broad set of interlocking determinants, including maternal nutrition, infant feeding practices, infectious diseases, sanitation, poverty, and access to health services, shapes stunting in Indonesia. Titaley et al. (2019) further show that household, parental, and contextual variables operate simultaneously, and that district and provincial differences matter for explaining child stunting outcomes. Subramanian et al. (2016) argue more broadly that policy responses to stunting must move beyond narrow nutrition interventions and adopt a structural and multifactorial strategy.

The literature distinguishes immediate nutritional risks from the wider conditions shaping exposure and access to care. Black et al. (2013) establish the substantial burden associated with maternal and child undernutrition, while Beal et al. (2018) synthesize Indonesian evidence on feeding, maternal characteristics, infection, and household conditions. These findings support a multisectoral understanding of stunting rather than an explanation based on food provision alone.

Evidence on interventions adds a complementary perspective. Bhutta et al. (2013) examine nutrition interventions and their potential effects when delivered at scale. Their analysis supports attention to coverage and implementation, but does not establish a universal coverage threshold at which every intervention will produce the same outcome in every setting.

For public policy analysis, identifying determinants is therefore necessary but insufficient. The question is also how institutions coordinate resources, targeting, and service delivery in settings with different implementation constraints. The World Bank (2018) provides an Indonesia-specific policy perspective on the need for coordinated stunting reduction, while Wu et al. (2015) distinguish analytical, operational, and political dimensions of policy capacity.

These perspectives motivate a comparative inquiry into the relationship between fiscal commitment, service coverage, and territorial outcomes. The present study does not treat observed associations as proof of policy mechanisms; it uses documentary evidence to develop plausible explanations that can subsequently be tested through fieldwork.

The research gap addressed here is the need to connect these bodies of evidence within a comparative subnational policy analysis. National averages describe overall progress, while provincial differences raise questions about the conditions under which formal policy arrangements support effective delivery. Combining institutional analysis with a context-sensitive evaluation framework enables these questions to be examined together.

To address this limitation, the present study combines a grand theory (new institutionalism) and an applied evaluation theory (realist evaluation). This combination enables explanation that goes beyond description by specifying: (1) the institutional factors that shape policy implementation environments,

(2) the mechanisms through which policy interventions are expected to produce outcomes, and (3) the contextual conditions that enable or constrain these mechanisms.

As a grand theory, this article uses new institutionalism. New institutionalism argues that policy outcomes are shaped not only by formal rules, but also by organizational routines, incentive structures, standard operating procedures, and historically sedimented patterns of coordination (March & Olsen, 1984; Hall & Taylor, 1996). In the context of stunting policy, this means that Presidential Regulation No. 72 of 2021 and related technical guidelines do not operate in a vacuum. Their actual performance depends on how ministries, local governments, health facilities, villages, and social actors prioritize and routinize those rules.

In a decentralized policy system, implementation depends on coordination among national ministries, provincial and district governments, service providers, and village institutions. These actors have different mandates, budgets, and priorities. Formal convergence arrangements therefore need to be examined alongside the organizational incentives and routines through which they operate.

The theory also highlights path dependency, in which past institutional choices constrain present options. Provinces with historically limited investment in health infrastructure (e.g., Papua) face different implementation conditions than provinces with stronger historical investment in health infrastructure (e.g., Bali). These historical trajectories create persistent institutional gaps that are difficult to overcome through policy change alone.

New institutionalism focuses on how different actors respond to their institutional incentives. Local governments may prioritize budget absorption (which is easily measurable and reportable) over stunting reduction itself (which is harder to attribute and measure). This creates a potential disconnect between the policy's formal goal (stunting reduction) and the actual behavior of implementing institutions (budget absorption).

Institutional fragmentation, path dependency, and weak horizontal coordination can therefore explain why the same formal policy framework yields uneven territorial outcomes. However, new institutionalism alone does not explain the specific mechanisms through which these institutional differences translate into outcomes. This is where realist evaluation complements the framework.

As an applied theory, this article uses realist evaluation. Pawson and Tilley (1997) developed realist evaluation to answer not only whether a policy works, but what works, for whom, in what contexts, and through what mechanisms. This is especially relevant for a complex, multisectoral policy such as stunting reduction. Realist evaluation treats outcomes as products of context mechanism outcome (CMO) configurations. A policy intervention can trigger positive mechanisms such as coordination, compliance, learning, or trust only when the context permits. Where the context is characterized by poor connectivity, weak administrative capacity, low fiscal execution, and fragmented targeting, the same policy design may fail to trigger the intended mechanisms. It may produce weak or uneven outcomes (Wong et al., 2016).

The theoretical novelty of this article lies in linking these two levels of explanation. New institutionalism explains why policy rules and organizational arrangements matter; realist evaluation explains how those institutional contexts activate or block mechanisms at the implementation level. The analytical implication is that underperformance in stunting policy should be understood neither as a purely resource problem nor as a purely behavioural one. It is a context-conditioned implementation problem mediated by institutional capacity, fiscal credibility, service convergence, and household-level access to interventions.

Based on this framework, the study evaluates stunting policy through four connected dimensions: (1) trend and territorial distribution of stunting outcomes; (2) budget commitment and budget realization as institutional inputs; (3) output coverage of nutrition specific and nutrition sensitive interventions; and (4) context mechanism outcome explanations of why policy performance varies across cases.

3. Method

This study uses a qualitative multiple-case study design with document based inquiry and cross-case synthesis (Creswell & Poth, 2018; Stake, 2006; Yin, 2018). The multiple-case design is appropriate because the question is explanatory rather than merely descriptive. The study not only asks whether Indonesia has reduced stunting but also why the policy has performed unevenly across different territorial contexts. A multiple-case design is therefore better suited than a single-site analysis to develop plausible explanations of recurring implementation patterns and contextual contrasts.

Case selection followed an extreme-and-contrasting-case logic. Three high-burden cases were selected: Highland Papua Province, East Nusa Tenggara Province, and West Sulawesi, as they consistently rank among the provinces with the highest prevalence in recent survey results. Bali Province was selected as a lower burden comparator because it represents a contrasting governance and service-delivery context and has remained well below the national average. The logic of this selection is not statistical representativeness but analytical contrast. The cases allow comparison between remote and relatively accessible settings, between high and lower prevalence, and between more and less institutionalized local convergence.

The article is based on secondary documentary sources, including the 2023 Indonesian Health Survey (SKI) factsheet, the 2024 Indonesian Nutrition Status Survey (SSGI), Ministry of Finance budget documents, the Directorate General of Fiscal Balance budget-tagging and evaluation reports, World Bank policy reports, and peer-reviewed articles. These materials provide information on prevalence, programme coverage, fiscal commitment, budget realization, and policy architecture (Health Development Policy Agency, Ministry of Health of the Republic of Indonesia, 2024; Ministry of Health of the Republic of Indonesia, 2025a; Ministry of Finance of the Republic of Indonesia, 2023; Directorate General of Fiscal Balance, 2023, 2025).

Data analysis was conducted in three stages. **First**, a time-series analysis of national stunting prevalence from 2019 to 2024 was conducted to identify the broad trend and periods of acceleration or stagnation.

Second, within-case reading was used to identify the main contextual characteristics of each province, including geography, service delivery reach, fiscal commitment, and institutional coordination issues. **Third**, cross-case synthesis was performed using a realist evaluation lens to identify recurring context-mechanism-outcome patterns. The coding and analysis procedures combined deductive and inductive approaches: a predefined codebook based on the study's analytical framework (such as contextual conditions, mechanisms, and outcomes) guided initial deductive coding, while inductive codes were added to capture emergent themes specific to individual provinces. Coding was conducted manually using Microsoft Excel to organize and sort qualitative data extracted from documents and reports. Evidence was systematically coded into contextual conditions (for example, remoteness, fiscal capacity, administrative fragmentation), mechanisms (convergence, targeting, learning, compliance, budget absorption), and outcomes (service coverage and stunting prevalence). This rigorous procedure facilitated transparent synthesis and reproducibility of the findings.

Methodologically, this study is a theory-informed qualitative policy analysis based on documentary evidence, rather than a primary fieldwork study or a direct test of causal effects. Cross-case comparisons generate plausible institutional explanations, but cannot establish household-level causal pathways. The analysis also depends on the quality and comparability of the source documents and aggregate data. Context–mechanism–outcome configurations should therefore be interpreted as explanatory propositions for further investigation.

4. Results and Discussion

4.1 National Trend: Declining Average, Incomplete Convergence

Table 1 and Fig. 1 show that Indonesia's stunting reduction trajectory is positive but non-linear. The national prevalence decreased by 4.6 percentage points between 2021 and 2024, at an average of approximately 1.53 percentage points per year. However, the trend was not smooth. The decline between 2022 and 2023 was only 0.1 percentage point, indicating that policy momentum weakened before recovering in 2024. This fluctuation is analytically important: it suggests that national progress is not self-sustaining and remains vulnerable to implementation bottlenecks.

Table 1
Indonesia's national stunting prevalence trend, 2019–2024

Year	Prevalence (%)	Point change from previous data point	Interpretation
2019	27.7	–	Post-Basic Health Research baseline before the SSGI sequence
2021	24.4	-3.3	Strong decline, but still above WHO threshold
2022	21.6	-2.8	Significant progress after intensified convergence
2023	21.5	-0.1	Near stagnation; improvement lost momentum.
2024	19.8	-1.7	Returned to decline and moved below 20% nationally

Note. Sources: Health Development Policy Agency, Ministry of Health of the Republic of Indonesia (2024) and Ministry of Health of the Republic of Indonesia (2025a).

A second implication is that success should not be measured by national average decline alone. The decline from 24.4% to 19.8% is significant, but it does not mean that the policy has converged across the territory. The national figure fell below the WHO 20% threshold in 2024, yet several provinces remained far above 30%. In public policy terms, the Indonesian case illustrates a classic pattern of aggregate improvement with territorial inequality. Averages improved; convergence did not.

The 2023 BKPK (Health Development Policy Agency, Ministry of Health) factsheet is particularly revealing. It shows that stunting still affected about one in five Indonesian children, was most concentrated among children aged 24–35 months, and was accompanied by large gaps in prenatal, postnatal, and household determinants. It also records that 19 provinces improved while 15 worsened between 2022 and 2023. The policy message is clear: a national decline can coexist with local reversals and stagnation (Health Development Policy Agency, Ministry of Health of the Republic of Indonesia, 2024).

4.2 Territorial Disparity and Multiple-Case Evidence

Table 2 presents the eight provinces with the highest reported stunting prevalence in SSGI 2024 and provides the burden context for selecting the three high-prevalence cases (Ministry of Health of the Republic of Indonesia, 2025a).

Table 2
Provinces with the highest stunting burden in 2024

Rank	Province	Prevalence (%)
1	Highland Papua	40.0
2	East Nusa Tenggara Province	37.0
3	West Sulawesi	35.4
4	Central Papua Province	32.5
5	Southwest Papua	30.5
6	West Nusa Tenggara	29.8
7	Aceh	28.6
8	Maluku	28.4

Note. Source: Ministry of Health of the Republic of Indonesia (2025a).

The 2024 burden map confirms that Indonesia's stunting problem is now less a purely national-average problem and more a territorial inequality problem. The highest burden remains concentrated in eastern Indonesia and in regions with difficult geography, weaker service reach, or persistent structural deprivation. Highland Papua Province, East Nusa Tenggara Province, and West Sulawesi represent different contexts. Still, they share a common policy characteristic: convergent stunting interventions have been harder to translate into sustained household-level coverage.

Highland Papua Province represents a case of extreme geographic and administrative constraint. Mountainous terrain, low transport connectivity, dispersed settlements, fragile service reach, and high dependency on state logistics make routine delivery of maternal, child, nutrition, and sanitation services more difficult than in many western provinces. In realist terms, the policy context is one in which the same intervention package faces far higher transaction costs. The expected mechanisms of timely service delivery, repeated contact with mothers and children, and routine growth monitoring become weaker or more intermittent.

East Nusa Tenggara Province represents a different but equally complex case. The province has long been associated with high stunting burden, food insecurity, drought exposure, maternal undernutrition, and service gaps. Unlike Highland Papua, the challenge is not only remoteness but also the interaction among chronic poverty, low household resilience, sanitation problems, and uneven local implementation. The policy implication is that high-burden settings do not all fail for the same reason: some are constrained primarily by access and infrastructure, while the depth of social determinants and service quality gaps constrains others.

West Sulawesi illustrates a middle case in which the province is not as geographically isolated as Highland Papua, yet still records very high prevalence. This suggests that remoteness alone cannot

explain underperformance. In institutional terms, the high prevalence in West Sulawesi underscores the importance of policy capacity: the ability to plan, coordinate, prioritize, and execute convergent interventions effectively. Where service networks are more reachable but high prevalence persists, implementation quality, local governance, and continuity of household-level follow-up become more salient explanatory factors.

Bali Province, by contrast, provides a lower burden comparator rather than a claim of perfection. Its lower prevalence suggests that comparatively stronger service reach, better local convergence, and more effective community level monitoring can support better outcomes. The purpose of including Bali Province is analytical: it helps distinguish what is specific to difficult contexts from what is attributable to policy organization. A lower burden in a comparator case implies that the national policy framework is not inherently ineffective; rather, its effectiveness is contingent on the institutional and territorial context in which it is implemented.

4.3 Budget Commitment: Stronger Allocations, Weaker Execution

Table 3 summarizes the selected fiscal indicators used to compare budget commitment with execution. The instruments represent different reporting scopes and must not be added together (Ministry of Finance of the Republic of Indonesia, 2023; Directorate General of Fiscal Balance, 2023, 2025).

Table 3
Selected indicators of fiscal commitment to stunting reduction

Instrument	2022	2023	2024	Interpretation
Central government K/L spending supporting stunting (trillion rupiah)	34.15	30.40	n.a.	Central priority remained high, but K/L spending alone does not guarantee territorial convergence.
Transfers to regions supporting stunting (trillion rupiah)	8.50	48.85	n.a.	Sharp increase in regional support, especially via DAK Fisik and village-related instruments.
APBD nutrition-intervention allocation (trillion rupiah)	n.a.	22.2	28.4	Regional allocation increased by approximately 27.9% from 2023 to 2024, calculated from the rounded amounts shown.
APBD nutrition-intervention realization (trillion rupiah)	n.a.	21.5	22.1	Nominal realization increased slightly, but much more slowly than allocation.
APBD realization rate	n.a.	97%	78%	Execution weakened despite larger allocations

Note: Figures cover different fiscal instruments and are not additive. Sources: Ministry of Finance of the Republic of Indonesia (2023) and Directorate General of Fiscal Balance (2023, 2025). K/L = ministries/agencies; APBD = regional revenue and expenditure budget; n.a. = not available in the compiled series.

The budget evidence complicates any simple narrative that a lack of money causes Indonesia's stunting problem. At the central level, government spending through ministries/agencies reached 34.15 trillion rupiah in 2022 and 30.40 trillion rupiah in 2023. Through transfer instruments, support to regions for stunting related interventions was estimated at 8.5 trillion rupiah in 2022 and 48.85 trillion rupiah in 2023, with physical special allocation funds as the dominant component. At the APBD level, nutrition-intervention allocations rose from 22.2 trillion rupiah in 2023 to 28.4 trillion rupiah in 2024.

However, budget commitment did not translate proportionally into budget realization. APBD allocations rose from 22.2 trillion rupiah in 2023 to 28.4 trillion rupiah in 2024, an increase of approximately 27.9% based on the rounded amounts in Table 3. Realized spending rose only from 21.5 to 22.1 trillion rupiah, while the reported realization rate fell from 97% to 78% (Directorate General of Fiscal Balance, 2025). This divergence is consistent with an execution gap. Procurement delays, administrative capacity constraints, and coordination problems are possible explanations, but the aggregate figures alone do not establish their relative contributions.

The DJPK (Directorate General of Fiscal Balance, Ministry of Finance) report also shows that almost 50% of districts/cities experienced negative growth in realized nutrition intervention spending in 2024 compared with 2023, and more than 63% experienced a contraction in 2025 allocations relative to 2024. This pattern indicates that fiscal commitment is volatile and susceptible to shifting priorities. It also

suggests that local governments do not uniformly possess the analytical, operational, and political capacity needed to plan and spend stunting budgets effectively (Directorate General of Fiscal Balance, 2025; Wu et al., 2015).

Budget composition matters as well. The 2024 APBD evidence shows that 50.42% of realized spending was directed to nutrition-specific interventions, 26.7% to sensitive interventions, and 23% to enabling interventions. This distribution is normatively sensible because direct determinants deserve priority. However, the report also notes that, compared with 2023, the proportion of spending on specific interventions fell by 6.4%, while enabling interventions rose by 5% and sensitive interventions by 1.4%. That shift is important because stunting reduction requires a balance: weak enabling capacity undermines implementation, but excessive drift from core, service-specific services can slow progress on the most immediate biological risks (Directorate General of Fiscal Balance, 2025).

4.4 Outputs and Outcomes: Coverage Bottlenecks Explain Outcome Inequality

A core strength of recent Indonesian policy is that it no longer frames stunting solely as a matter of food supplementation. The policy architecture spans prenatal, birth, postnatal, and household determinants. However, output coverage remains inconsistent. The BKPK (Health Development Policy Agency, Ministry of Health) 2023 stunting factsheet records several important gaps: maternal chronic energy deficiency risk remained 16.9%; although 92.2% of pregnant women received iron-folic acid tablets, only 44.2% consumed the recommended minimum dosage; ANC (Antenatal Care) coverage was 68.1%; exclusive breastfeeding among infants aged 0–5 months was 68.6%; animal-source complementary feeding reached 78.4%; household access to proper sanitation stood at 69.4%; and basic hygiene access at 78.9%. These figures show that Indonesia's problem is not the absence of interventions, but incomplete and uneven effective coverage (Health Development Policy Agency, Ministry of Health of the Republic of Indonesia, 2024).

The DJPK evaluation identifies continuing gaps in service coverage across 2022–2024 (Directorate General of Fiscal Balance, 2025). Bhutta et al. (2013) likewise show why scaling up evidence-based nutrition interventions matters, using high-coverage scenarios to estimate potential benefits. Such scenarios should not be interpreted as a universal biological threshold. For this study, coverage gaps indicate a plausible constraint on policy effectiveness, rather than a demonstrated causal explanation of provincial differences.

This output problem explains why outcomes diverge despite policy expansion. National prevalence declined, but not all provinces improved at the same rate. The policy system can improve outcomes when service contact is frequent, data are used actively, targeting is shared, and budget execution is timely. However, where growth monitoring is irregular, maternal follow-up is weak, sanitation coverage is incomplete, and village-level convergence is thin, the policy delivers only partial output gains and therefore partial outcome gains.

The output and outcome disjuncture is particularly evident in the gap between access and effective use. For example, the proportion of pregnant women receiving iron tablets is far higher than the proportion consuming them adequately. This is not a trivial gap. It shows that service provision, behaviour change, supervision, and household compliance are different policy stages. A program can look successful in administrative output terms while still underperforming in biological or developmental outcome terms. Realist evaluation is useful here because it directs attention to the mechanism linking provision to actual uptake. To address this, monitoring systems should move beyond recording the delivery of interventions and systematically capture evidence of effective use at the beneficiary level. For instance, monitoring protocols could track not only the distribution of supplements but also periodic checks on consumption, adherence logs, follow-up counselling, and the use of outcome-linked indicators such as repeated anthropometric measurements or home visits. By actively gathering data on the conversion of service contact into sustained and proper use, policy researchers and practitioners can better identify where breakdowns occur and target corrective action. This actionable refinement would help bridge the gap between theory and practice, ensuring that reported outputs reflect meaningful improvements in child nutrition outcomes.

4.5 Why the Policy Has Not Yet Performed Optimally: A Cross-Case Explanation

Table 4 synthesizes the proposed context–mechanism–outcome configurations across the four cases. It links the territorial discussion in Section 4.2 with the fiscal and coverage evidence in Sections 4.3–4.4. These configurations are interpretive propositions derived from secondary evidence, not mechanisms directly verified through interviews or observation.

Table 4
Simplified context mechanism outcome (CMO) synthesis across cases

Case context	Mechanism activated or blocked	Output pattern	Outcome implication
Extreme remoteness and fragmented service reach (Highland Papua)	Routine contact, referral continuity, and household follow-up are frequently blocked	Irregular or costly delivery of maternal-child and nutrition services	Very high prevalence persists despite national policy prioritization
Chronic poverty, food insecurity, and social determinant burden (NTT)	Partial activation of services, but household resilience and uptake remain weak	Coverage expands but behavioural and environmental conversion is incomplete	Stunting declines slowly and remains high
Reachable territory but uneven local policy capacity (West Sulawesi)	Coordination, targeting, and execution mechanisms operate inconsistently	Outputs improve selectively, not convergently	High prevalence persists despite less severe access barriers
Comparatively stronger local convergence and service organization (Bali Province)	Monitoring, targeting, and community follow-up are more consistently activated	Higher continuity of service outputs and local accountability	Lower prevalence and more stable policy performance

Note: Author synthesis using the institutional and realist frameworks (Hall & Taylor, 1996; Pawson & Tilley, 1997; Wong et al., 2016).

The main research question of this article is why stunting policy in Indonesia has not yet performed optimally in reducing stunting in several regions. The cross-case evidence suggests five interrelated answers. First, Indonesia faces asymmetric capacity for implementation. The same national policy package operates in radically different territorial conditions. In remote provinces, high transport costs, weak health infrastructure, and dispersed settlements raise the cost and complexity of delivering convergent interventions. A uniform national design therefore encounters non-uniform local feasibility.

Second, Indonesia faces a budget execution problem, not only a budget allocation problem. Rising allocations and visible tagging systems signal political attention, but falling realisation rates signal weak absorptive capacity, procurement readiness, organizational coordination, or monitoring discipline. A policy can be well-funded on paper and underperform in practice if the last mile of spending is weak.

Third, intersectoral convergence is stronger in policy discourse than in household-level simultaneity. Stunting declines when a target mother child pair receives multiple interventions together: maternal supplementation, ANC (Antenatal Care), growth monitoring, immunization, safe water, sanitation, food support, and counselling. Administrative convergence across agencies does not automatically produce simultaneous convergence at the beneficiary level. This is a central institutional blind spot.

Fourth, effective intervention coverage remains incomplete. Bhutta et al. (2013) demonstrate the potential benefits of expanding evidence-based nutrition interventions, while the national factsheet and

fiscal evaluation document gaps in service delivery and uptake (Health Development Policy Agency, Ministry of Health of the Republic of Indonesia, 2024; Directorate General of Fiscal Balance, 2025). Sustained coverage and service quality are therefore central policy concerns, although their separate contributions to provincial outcomes cannot be quantified by this document-based design.

Fifth, structural determinants remain powerful. Beal et al. (2018) and Titaley et al. (2019) show that child stunting in Indonesia is rooted in a broad set of determinants, including maternal education, poverty, birth outcomes, sanitation, and care practices. This means the stunting policy cannot be judged solely through the health sector. Where poverty, household vulnerability, or environmental deprivation remain severe, direct nutrition services may reduce risk but cannot fully offset structural disadvantages.

Collectively, these five explanations indicate that Indonesia's stunting policy is not failing uniformly; rather, it performs variably because policy mechanisms are activated differently across contexts. The central weakness is not the absence of policy, but the uneven institutional translation of policy into convergent service delivery.

4.6 Learning from Other Developing Countries

Comparative experience from other developing countries reinforces this diagnosis. The World Bank's cross-country synthesis identifies Peru, Thailand, Vietnam, and Brazil as cases that reduced stunting substantially over relatively short periods. Peru reduced stunting from 28% to 13% in eight years; Vietnam cut child stunting by nearly half in a decade; and Brazil reduced prevalence among children under five from 37.1% to 7.1% between 1974 and 2007 (Kathuria et al., 2019; Marini et al., 2017). Table 5 summarizes these comparative examples.

Table 5
Selected international experiences in stunting reduction

Country	Stunting Reduction	Key Policy Ingredients
Peru	28% to 13% (8 years)	Sustained political commitment across administrations; strong leadership; multisectoral action; evidence-based interventions at scale; stronger monitoring and accountability mechanisms
Vietnam	Nearly halved (10 years)	Targeted cash transfers; community-based growth monitoring; integration of nutrition into health and social protection systems
Brazil	37.1% to 7.1% (1974–2007)	Conditional cash transfers (Bolsa Família); integrated early childhood programs; strong primary healthcare; political continuity

What matters in these cases is not that they found a single magic program. The World Bank synthesis stresses that successful countries shared common policy ingredients: sustained political commitment across administrations, strong leadership and policy champions, an enabling policy environment, multisectoral action, evidence-based interventions delivered at scale, strong monitoring systems, adequate and well-prioritized financing, and community engagement. Peru is particularly instructive because successive governments maintained continuity, combined nutrition policy with social protection

and WASH (Water, Sanitation, and Hygiene), and used stronger monitoring and accountability mechanisms to keep nutrition high on the political agenda (Marini et al., 2017).

The comparison is highly relevant for Indonesia. Indonesia already possesses many of the formal ingredients: a national strategy, a presidential regulation, multisectoral convergence language, budget tagging, and district performance assessment (Beal et al., 2018). What it lacks is uniform depth of execution. Unlike Peru's more continuous and discipline-oriented institutionalization, Indonesia still exhibits large gaps between central design and local realization (Prendergast & Humphrey, 2014). The comparison therefore suggests that Indonesia's next reform phase should focus less on policy multiplication and more on execution quality, territorial targeting, results-based coordination, and continuity across political cycles.

For high burden provinces, the relevant lesson is not to replicate another country’s approach mechanically. The lesson is to protect institutional continuity, reduce fragmentation, and tie fiscal commitment more tightly to measurable service improvements in the first 1,000 days of life. International success stories demonstrate that stunting can fall quickly when multisectoral policy is converted into disciplined local delivery. Indonesia's challenge is to make that conversion work in the places where implementation is hardest.

4.7 Policy Implications

Three policy implications follow from the analysis. First, fiscal reform should move from budget visibility to budget credibility. Budget tagging is valuable, but it should be more explicitly linked to district-level execution quality, timeliness, and beneficiary-level convergence. Incentive systems should reward not only spending levels but also gains in coverage across the most policy-relevant indicators.

Second, high-burden provinces require differentiated implementation strategies. Highland Papua Province cannot be governed with the same operational assumptions as Bali Province. Frontier and difficult access areas need adaptive service models, stronger mobile outreach, logistics support, and flexible implementation rules. A uniform policy architecture should be retained at the national level, but operational design should be differentiated by territory.

Third, the monitoring system should prioritize conversion indicators rather than just contact indicators. It is not enough to record that mothers receive supplements or that villages have programs. Monitoring should focus on whether services are consumed, repeated, simultaneous, and targeted to the right households. This shift would align policy monitoring more closely with the realist insight that outcomes depend on the activation of mechanisms rather than on administrative presence alone.

5. Conclusion

This study set out to answer why Indonesia's stunting policy has not yet performed optimally in reducing stunting in several regions. The answer is not that Indonesia lacks policy commitment. On the contrary, the country has built a comparatively elaborate policy architecture, increased budget visibility, and

achieved a significant reduction in national prevalence. The deeper problem lies in the uneven translation of that architecture into effective local execution.

The evidence shows that Indonesia's stunting policy underperforms where difficult territorial contexts, weak implementation capacity, incomplete service convergence, and persistent structural determinants intersect. The high prevalence in Highland Papua, East Nusa Tenggara Province, and West Sulawesi cannot be explained by a single variable. It reflects different combinations of geographic constraints, weaknesses in fiscal execution, institutional fragmentation, and insufficient output coverage. Budget growth has therefore not produced uniformly strong outcomes because institutional and contextual conditions mediate the relationship between input, output, and outcome.

The study also shows that national progress remains real. Indonesia reduced stunting prevalence from 24.4% in 2021 to 19.8% in 2024. However, the persistence of provinces above 30% means the policy is not yet considered optimally effective. The central policy problem has shifted from policy adoption to the quality of territorialized implementation.

The main theoretical contribution of the article is to demonstrate the value of integrating new institutionalism and realist evaluation. New institutionalism helps explain why formal policy arrangements do not automatically produce similar outcomes across territories, realist evaluation explains how context activates or blocks the mechanisms through which policy should work. Together, these frameworks provide a stronger explanation than single-factor narratives of weak commitment or low awareness.

This article has several limitations. First, it relies on secondary data and document-based analysis rather than primary field interviews, so some local implementation dynamics could not be observed directly. Second, not all provincial time series are equally comparable because of administrative changes and data limitations in some provinces. Third, budget tagging captures data on commitment and realization, but not always on the quality of spending or the micro-level effectiveness of each intervention.

To address these limitations, future research should pursue several specific questions. What are the actual bottlenecks and facilitators of stunting policy execution as experienced by frontline workers and beneficiaries in high-burden regions? How do local governance processes and informal norms shape the translation of national stunting policy into household-level action? Which factors explain variation in budget absorption and service integration at the district level? Studies employing immersive field methods such as ethnography or participant observation could yield richer insight into day to day operational challenges. At the same time, process tracing and in-depth interviews could help map the causal pathways between budget allocation, service delivery, and child outcomes. Mixed-method and panel designs could further elucidate the time-varying dynamics of local implementation, particularly in newly formed or administratively complex provinces. Addressing these research questions will not only fill key empirical gaps but also build a stronger foundation for context-sensitive policy reform.

Future research should therefore move in three directions. The first is primary qualitative fieldwork in frontier and high burden districts to identify the concrete operational bottlenecks behind low execution and weak convergence. The second is mixed-method analysis linking district-level budget, service coverage, and anthropometric outcomes over time. The third is more explicit research on adaptive implementation strategies for remote, archipelagic, and indigenous contexts, where a uniform national delivery logic may be least effective. Such work would deepen the evidence base for a more territorially intelligent and institutionally robust stunting policy in Indonesia.

Declarations

Ethics declaration

Not applicable. This study is based on secondary analysis of published reports, aggregate statistics, policy documents, and scholarly literature. It did not involve participant recruitment, interviews, interventions, or the collection of identifiable personal data.

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Author Contribution

IPDY contribution Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Writing – original draft, Project administration

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Figures



Figure 1

Indonesia's stunting prevalence trend, 2013–2024