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Collaborative governance for food security policy in Indonesia: lessons for achieving the SDGs in Asia-Pacific

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ABSTRACT

This article examines how collaborative governance shapes food security policy in Indonesia within the framework of the Sustainable Development Goals (SDGs), situating the analysis in the wider context of global food insecurity, climate change, and local institutional fragility. Using a qualitative case study based on policy documents, statistics, and interviews with key stakeholders, the study shows that Indonesia's food security policy is increasingly aligned with SDG 2, yet its effectiveness depends on adaptive collaboration across governance levels. The findings reveal the enabling role of facilitative leadership, integrated digital data systems, and community-based organizations in bridging national commitments with grassroots realities, while persistent challenges emerge from fragmented governance, weak local capacity, and inconsistent policy implementation. Beyond the Indonesian case, the study offers lessons for achieving the SDGs in Asia-Pacific, particularly by highlighting the importance of institutional design, cross-sectoral engagement, and adaptive coordination as strategies to balance national priorities with local contexts. These insights provide both theoretical contributions to the literature on collaborative governance and practical guidance for policymakers facing similar governance and development challenges across the region.

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1. Introduction

Food security has become one of the most pressing global policy challenges of the twenty-first century, shaped by the combined pressures of population growth, climate change, economic volatility, and persistent social inequalities. At the global level, the United Nations has positioned food security as a core pillar of sustainable development through the Sustainable Development Goals (SDGs), particularly Goal 2 (Zero Hunger), while explicitly linking it to poverty alleviation, public health improvement, sustainable livelihoods, and inclusive economic growth (FAO 2023); (UNDP 2022). Ensuring access to sufficient, safe, and nutritious food is therefore not only a humanitarian imperative but also a fundamental prerequisite for social stability, economic productivity, and long-term sustainability.

These challenges are especially pronounced in the Asia-Pacific region. Despite notable advances in agricultural productivity and food supply systems, many countries continue to face structural vulnerabilities related to climate variability, rapid urbanisation, market instability, and uneven governance capacity (Abdullahi, Kalengyo, and Warsame 2024; Borah et al. 2024; Mokone and Ndhlovu 2025). Such conditions have exposed the limitations of sectoral, programme-driven policy approaches and underscored the need for governance arrangements that can manage interdependence across policy sectors, administrative levels, and institutional boundaries. Consequently, food security is increasingly understood not merely as a technical or production-oriented issue, but as a complex governance challenge requiring coordination, collaboration, and adaptive institutional design.

Indonesia offers a particularly salient case within this regional and global context. As the world's fourth most populous country and one of the largest agrarian economies, Indonesia plays a strategic role in

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shaping food security outcomes in the Asia-Pacific. Nationally, the government has achieved progress in strengthening food availability, particularly through rice production and the management of strategic food reserves by State Logistics Agency (Bulog). However, these national achievements coexist with persistent food insecurity at the local level. High rates of stunting, malnutrition, unequal food distribution, and vulnerability to price shocks remain prevalent, especially in rural areas and eastern regions (Headey and Ruel 2023; Ogwu et al. 2024). This paradox highlights a critical underrepresentation: the difficulty of translating national food security priorities into equitable and effective outcomes at the community level.

In response to these challenges, the Indonesian government has formally aligned its food security agenda with the SDGs through key national policy instruments, including the Regional Medium-Term Development Plan (RMTDP) 2020–2024 and Perpres (2020) also Presidential Regulation Number 72 at 2021 on the Acceleration of Stunting Reduction (Perpres 2021). These frameworks adopt a multidimensional conception of food security encompassing availability, access, utilisation, and stability, consistent with the FAO's four pillars. Food security policies are also designed to contribute to multiple SDGs, notably Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 12 (Responsible Consumption and Production), and Goal 17 (Partnerships for the Goals). Nevertheless, growing evidence suggests that policy coherence at the national level does not automatically translate into effective implementation on the ground.

The effectiveness of food security policy in Indonesia is highly contingent on local governance dynamics and the capacity of diverse actors to collaborate (WHO 2021). Village governments, community-based organisations, women's groups, and Village-Owned Enterprises (BUMDes) play pivotal roles in ensuring household-level access to nutritious food, while partnerships with cooperatives, private-sector off-takers, and non-governmental organisations help address distribution gaps, market access, and innovation constraints. These interactions reveal that food security governance in Indonesia is inherently multi-actor, multi-level, and multi-sectoral. At the same time, fragmented institutional mandates, overlapping responsibilities, and disconnected data systems often undermine coordination and weaken policy outcomes.

Within this context, collaborative governance has gained increasing attention in public administration and policy studies as an approach to addressing complex policy problems characterised by interdependence and institutional fragmentation. Ansell and Gash and Emerson and Nabatchi conceptualise collaborative governance as a process in which public, private, and societal actors engage in collective decision-making, emphasising trust-building, shared motivation, and joint capacity for action. Applied to food security, this perspective highlights the importance of adaptive coordination, cross-sectoral engagement, and the integration of local knowledge and resources in pursuit of shared development goals.

In Indonesia, elements of collaborative governance are evident in multi-stakeholder initiatives such as stunting reduction forums, regional food security councils, and participatory village planning mechanisms. While these platforms provide opportunities for dialogue and joint problem-solving, their effectiveness varies considerably. Many collaborative arrangements remain temporary, project-based, or reactive, and often depend on short-term funding, individual leadership, or sectoral mandates. As a result, collaboration is unevenly institutionalised and frequently struggles to address structural coordination problems across governance levels. This raises important questions about how collaborative governance actually operates in practice within Indonesia's food security policy and which factors enable or constrain its effectiveness.

Despite the growing relevance of collaborative governance in food security policy, empirical studies that systematically examine its operational dynamics and outcomes in developing and decentralised contexts remain limited. In particular, there is a need for research that connects national SDG commitments with local governance realities and draws lessons that extend beyond single-country experiences. Governance gap governance debates on achieving the SDGs across the Asia-Pacific region. Based on the foregoing discussion, the study sets out three key objectives: 1) To examine how collaborative governance operates in the formulation and implementation of food security policy in Indonesia. 2) To identify enabling and constraining factors that influence the effectiveness of collaborative arrangements in this domain. 3) To draw lessons from Indonesia's experience that can inform broader policy and governance debates on achieving the SDGs in Asia-Pacific. The study contributes theoretically by extending collaborative governance to the domain of food security and sustainable development, empirically by presenting evidence from Indonesia, and practically by offering recommendations for policymakers and practitioners. Ultimately, it

highlights Indonesia's experience as a valuable lesson for accelerating SDG achievement through collaborative governance in the Asia-Pacific region.

This study refines collaborative governance frameworks by highlighting adaptive coordination and community-based engagement in food security policy. Drawing on Indonesia's experience, it provides empirical insights into the interplay between national priorities and local realities. The findings offer practical lessons for fostering inclusive and resilient governance arrangements, contributing to broader efforts to achieve the SDGs in Asia-Pacific.

2. Literature review

2.1. Food security policy and the sustainable development goals: global, regional, and Indonesian perspectives

Food security has long been conceptualised through the FAO's four interdependent dimensions: availability (sufficient food supply), access (the ability of people to obtain food), utilisation (nutritional quality, safety, and biological use), and stability (the consistency of food access over time). This framework, widely adopted in academic and policy debates, provides a holistic perspective that extends beyond food production to include equitable distribution, nutrition, and vulnerability to shocks (Clapp 2017; Organization 2023). Contemporary scholarship increasingly emphasises that food security is not merely a technical or economic issue but fundamentally a governance challenge, requiring integrated, multi-sectoral, and adaptive policy interventions (Rafael 2017).

Recent global crises including climate change, pandemics, and geopolitical conflicts have exposed structural weaknesses in food systems worldwide, disrupting supply chains and exacerbating food insecurity in both developed and developing countries. Studies demonstrate that global shocks and market volatility directly affect food availability and affordability, underscoring the importance of resilient governance systems capable of managing uncertainty and systemic risk (Schmidhuber, Ingrams, and Hilgers 2021). At the same time, the concept of food security has expanded to incorporate nutrition security, linking access to diverse and healthy diets with broader objectives of public health and sustainable development (Fanzo 2023). These perspectives extend the FAO framework by foregrounding resilience, equity, and health outcomes as integral components of food policy.

This governance-oriented understanding is embedded in the 2030 Agenda for Sustainable Development, which positions food security as both a standalone objective (SDG 2: Zero Hunger) and a cross-cutting enabler of other goals, including poverty reduction (SDG 1), health and well-being (SDG 3), responsible consumption and production (SDG 12), and climate action (SDG 13) (Nilsson et al. 2018; Wijerathna-Yapa and Pathirana 2022). Achieving SDG 2 therefore requires deep policy integration across agriculture, health, environmental management, and social protection, as well as governance mechanisms capable of managing trade-offs and synergies among competing objectives (Moallemi et al. 2022; Renaud et al. 2022).

Within the Asia-Pacific region, food security challenges reveal sharp contrasts. While some economies are surplus producers, others continue to face persistent undernourishment and multiple forms of malnutrition (WHO 2023). Regional initiatives such as ASEAN's Integrated Food Security Framework (AIFS) seek to harmonise policy approaches and improve coordination, yet disparities in institutional capacity and implementation effectiveness remain substantial (Swinnen and McDermott 2020). Recent studies highlight that digital transformation, particularly through regional data-sharing mechanisms and integrated monitoring platforms, is increasingly critical for addressing governance fragmentation and enhancing policy coherence across borders (Unicef 2024).

In Indonesia, food security governance is further complicated by archipelagic geography, socio-economic inequality, and fragmented institutional arrangements. National development strategies, including the National Medium-Term Development Plan (2020–2024) and Presidential Regulation No. 72/2021 on stunting reduction, formally link food security with nutrition, health, and social protection, reflecting the integrated logic of the SDGs (Bell et al. 2024; Gordon et al. 2024). Nevertheless, empirical research indicates persistent implementation gaps, particularly in harmonising data systems, coordinating across ministries, and ensuring policy coherence at sub-national and local levels (Suryana 2025). These challenges reveal the

limitations of conventional state-centred approaches and underscore the need for governance arrangements that can bridge institutional divides.

Across global, regional, and national contexts, recent analyses converge on the importance of multi-stakeholder engagement and adaptive governance in achieving SDG-related food security targets. Integrating nutrition-sensitive interventions into food policy is essential for linking SDG 2 with health outcomes under SDG 3 (Fanzo 2023), while resilience-oriented governance is increasingly recognised as a prerequisite for addressing climate-related risks under SDG 13 (Schmidhuber, Ingrams, and Hilgers 2021). Within the Asia-Pacific, collaborative data platforms and joint monitoring frameworks are identified as key instruments for aligning national actions with regional commitments and reducing policy fragmentation (Ciambra and Stamos 2026; Ukeje et al. 2026).

Taken together, this body of literature suggests that food security under the SDG framework must be understood as a multidimensional governance challenge. Achieving SDG 2 requires not only integrated policies across sectors but also adaptive institutional arrangements, inclusive stakeholder participation, and coherent coordination across governance levels, ensuring that global commitments are translated into locally grounded and context-specific actions.

2.2. Collaborative governance, food security, and SDG 2

Food security is traditionally defined through four interdependent dimensions availability, access, utilisation, and stability which together capture not only food supply but also affordability, nutritional quality, and vulnerability to shocks (Clapp and Moseley 2020; UNICEF 2023). Contemporary scholarship increasingly frames food security as a governance challenge, arguing that its achievement depends on integrated, multi-sectoral policy design that coordinates agriculture, health, environmental management, markets, and social protection (Forouzanfar et al. 2015). This governance orientation is embedded in the 2030 Agenda through SDG 2, whose targets ranging from hunger eradication (2.1) and malnutrition reduction (2.2) to smallholder productivity (2.3) and climate-resilient agriculture (2.4) cut across sectors and levels of authority (Nilsson et al. 2018; Wijerathna-Yapa and Pathirana 2022).

Collaborative governance provides a relevant theoretical framework for managing such interdependence. It conceptualises public problem-solving as a process in which public agencies and non-state actors engage in collective decision-making and joint implementation (Popęda and Hadasik 2024; Warsame and Abdillahi 2026). Mazzetti and Schaufeli (2022) further elaborate this approach by identifying three interrelated dimensions: principled engagement, shared motivation, and capacity for joint action, which interact dynamically within multi-level institutional environments. These dimensions clarify how collaboration can translate fragmented sectoral interventions into more coherent governance outcomes.

When applied to food security and SDG 2, the collaborative governance framework helps explain key implementation mechanisms. Principled engagement facilitates inclusive participation, shared problem definition, and alignment between global SDG commitments and local priorities, including nutrition-sensitive interventions. Shared motivation manifested through trust, legitimacy, and mutual commitment reduces coordination failures across ministries, communities, and implementing organisations (Onyango 2025; Siahaan et al. 2025; Zafarullah and Ferdous 2024). Capacity for joint action encompasses institutional arrangements, leadership, organisational resources, and knowledge infrastructures that enable coordinated implementation, monitoring, and adaptation (Alaerts and Kaspersma 2022; Cid and Lerner 2023).

In decentralised governance contexts such as Indonesia, however, these collaborative processes face persistent structural constraints. Food security policy operates through hierarchical and fragmented arrangements involving national planning agencies (e.g. Bappenas), line ministries (e.g. Kemendes PDTT), sub-national governments, and village authorities. Weak coordination, unsynchronised budget structures, and limited inter-organisational leadership often undermine joint capacity and policy coherence (Bank 2020). Collaborative governance framework emphasises principled engagement, shared motivation, and joint capacity for action as core process dynamics, its application in hierarchical and multi-tiered governance systems requires additional attention to institutional alignment across levels of authority (McNaught 2025; Waylen et al. 2023).

To account for these conditions, this study adapts the Emerson framework by introducing multi-level institutional coherence as a complementary analytical lens. This concept refers to the degree of alignment

and consistency among policy goals, regulatory instruments, organisational mandates, and implementation mechanisms across national, regional, and local governance levels. In contexts where authority, resources, and accountability are vertically distributed, collaborative processes can only function effectively when institutional arrangements are mutually reinforcing rather than fragmented or contradictory (Ganeshu et al. 2024; Grimm and Reinecke 2024; Kim, Swann, and Feiock 2021).

Building on the collaborative governance frameworks proposed by Ansell and Gash (2008) and Emerson and Nabatchi (2015), effective progress toward SDG 2 requires more than stakeholder participation alone. While principled engagement, shared motivation, and joint capacity for action constitute the core process dynamics of collaborative governance, their effectiveness in hierarchical and multi-tiered governance systems depends critically on institutional alignment across levels of authority. In contexts such as Indonesia, where food security policy is shaped by vertically distributed mandates and resources, multi-level institutional coherence becomes essential to ensure that collaborative processes translate into coordinated policy action and consistent implementation outcomes.

Within this institutional setting, the SDG 2 agenda introduces a systems perspective that emphasises interdependencies, trade-offs, and synergies with other goals, including poverty reduction (SDG 1), health (SDG 3), sustainable consumption (SDG 12), and climate action (SDG 13). Collaborative governance functions as a mechanism for negotiating these interactions through policy integration and adaptive coordination defined as the iterative adjustment of roles, resources, and policy instruments in response to feedback, uncertainty, and external shocks (Ahn 2023; Righettini 2025). Empirical studies on climate and market volatility further demonstrate that food-system resilience depends on governance capacities to share information through interoperable data systems, distribute risk through social protection and insurance schemes, and co-produce solutions with community-based organisations and producer groups (Fanzo 2023). From this perspective, the FAO's four food security dimensions availability, access, utilisation, and stability should be understood not merely as sectoral outputs, but as outcomes of governance performance shaped by collaborative capacity and institutional coherence across policy levels. At the same time, the literature cautions that collaboration is not inherently effective. Power asymmetries, elite capture, fragmented institutions, and weak local capacity frequently undermine collaborative arrangements, particularly in developing and decentralised contexts (Kabeya 2025). Formal inclusion of diverse actors does not automatically translate into meaningful participation, as dominant stakeholders may shape agendas and outcomes in line with their interests (Kiss et al. 2022). Weak institutional design, limited trust, and resource constraints can further result in tokenistic collaboration or fragmented initiatives with limited learning and sustainability (Pattberg and Widerberg 2016).

The SDGs further emphasise partnerships (SDG 17) as a critical driver of sustainable development, highlighting multi-stakeholder collaboration involving governments, civil society, private actors, and international organisations. Within a collaborative governance perspective, partnerships represent not only instrumental arrangements but also normative commitments to inclusive decision-making and shared responsibility (Clark 2021; Elken 2024). Empirical evidence suggests that collaborative arrangements can enhance resource mobilisation, policy coherence, and stakeholder legitimacy, thereby strengthening implementation capacity in complex policy domains (Andonova and Mitchell 2010; Bexell and Jönsson 2019). Studies further show that cross-sectoral partnerships facilitate knowledge sharing and innovation in sustainable food systems (Termeer et al. 2021) and improve the integration of local needs into national policy agendas (Mortensen, Loftis, and Seeberg 2022).

Nevertheless, recurring challenges including donor dependency, political resistance, elite dominance, and uneven governance capacity continue to limit the effectiveness and sustainability of collaborative arrangements (Geddes 2023; Vangana 2025). These insights suggest that while collaboration can generate benefits in terms of resilience, efficiency, and responsiveness, its success ultimately depends on the quality of institutional design, trust-building mechanisms, and the capacity to address structural inequalities and power asymmetries among stakeholders (Ansell and Gash 2008; Huxham and Vangen 2005; Kirk and Tina Nabatchi 2012; Mansuri and Rao 2013).

For Indonesia, collaborative governance research has been more extensively applied in environmental management and public health, particularly forest governance and stunting reduction. By contrast, the role of collaborative governance in food security policy especially in relation to SDG 2 and multi-level institutional coordination remains underexplored. This gap highlights the need for an analytical framework

that systematically links collaborative governance mechanisms with food-security outcomes in decentralised governance settings.

2.3. Bibliometric insights and research gap

To complement the narrative literature review, a bibliometric mapping was conducted using VOSviewer to visualise thematic patterns and research trends in the field of food security, collaborative governance, and the Sustainable Development Goals. The analysis, based on keyword co-occurrence, shows that existing scholarship is predominantly centred on themes such as nutrition, sustainability, end hunger, world food security, and climate change. These clusters indicate that most studies conceptualise food security primarily as an outcome-oriented issue, emphasising nutritional status, environmental sustainability, and climate-related risks (Shuang and Qiao Ling 2025). This pattern reflects the strong influence of SDG 2 and SDG 13 in shaping the mainstream research agenda.

In contrast, governance-related themes particularly those associated with collaborative governance, cooperation, and institutional processes appear in smaller and less integrated clusters. Keywords such as collaborative governance approach and cooperation show weak connections to the dominant nutrition–sustainability cluster, suggesting that governance perspectives remain peripheral in the broader food security literature. This implies that while collaboration is often acknowledged as important, it is rarely examined as a central analytical lens for understanding how food security policies are formulated, coordinated, and implemented across multiple governance levels.

The bibliometric map also indicates that many studies remain conceptual in nature, as reflected in the prominence of terms such as concept and potential, rather than offering in-depth empirical analyses of policy processes. Moreover, Asia-Pacific contexts, including Southeast Asian countries, appear only marginally in the keyword network. The limited visibility of country-specific terms such as Indonesia suggests that regional and national governance dynamics in food security policy remain underexplored, despite the region's high vulnerability to food insecurity, climate change, and institutional capacity constraints.

These patterns highlight three key research gaps. First, there is a strong imbalance between outcome-focused studies (nutrition, sustainability, climate impacts) and process-oriented analyses of governance mechanisms. Second, the role of collaborative governance including institutional design, stakeholder engagement, and adaptive coordination has not been systematically examined in relation to food security policy implementation. Third, empirical evidence from Asia-Pacific countries, particularly Indonesia, remains limited in the international literature.

Addressing these gaps, the present study shifts the analytical focus from what food security outcomes are achieved to how food security policies are governed. By applying the collaborative governance framework of Ansell and Gash (2008) and Emerson and Nabatchi (2015), this research examines the institutional arrangements, actor interactions, and coordination mechanisms that shape Indonesia's food security policy in practice. In doing so, it contributes a governance-oriented perspective that complements existing nutrition and sustainability-centred studies, while also enriching the Asia-Pacific evidence base on SDG-oriented policy implementation.

This figure visualizes the Scopus-based bibliometric density map reveals that existing food security scholarship is heavily concentrated on health, nutrition, and outcome-oriented dimensions of the Sustainable Development Goals, including epidemiological studies, dietary intake, and social impacts. In contrast, governance-related themes such as collaborative governance, institutional coordination, and multi-level policy processes remain marginal. This indicates that food security is predominantly framed as a technical and health issue rather than a governance challenge. By focusing on how collaborative governance mechanisms shape food security policy implementation in Indonesia, this study addresses a significant gap in the literature and offers a process-oriented perspective that complements the prevailing outcome-focused research agenda.

2.4. Research gap and conceptual framework

Despite growing scholarly attention to food security, much of the existing literature continues to prioritise technical and sectoral dimensions such as agricultural production, nutrition outcomes, and economic

efficiency while paying relatively limited attention to the governance processes that shape how food security policies are formulated and implemented (Clapp and Moseley 2020; Forouzanfar et al. 2016). In the Indonesian context, most studies similarly focus on production performance and socio-economic indicators, often overlooking the institutional arrangements, coordination mechanisms, and multi-actor interactions that influence policy effectiveness at national and local levels.

One notable exception is the study by Arrang et al. (2024) which applies a network governance perspective to Indonesia's Food Security and Vulnerability Atlas (FSVA) programme and reveals suboptimal collaboration among stakeholders during policy design and implementation. While this work highlights coordination challenges, it does not systematically examine how collaborative governance is institutionally designed, operationalized across governance levels, or linked to broader SDG commitments. Similarly, international studies such as Edge and Meyer (2019) offer valuable insights into social dynamics and value-based tensions in collaborative food initiatives, but place less emphasis on the institutional and policy mechanisms that structure collaboration within formal governance systems.

As a result, there remains a significant gap in understanding how collaborative governance operates in the formulation and implementation of food security policy, which factors enable or constrain its effectiveness, and how such arrangements contribute to the achievement of SDG 2 (Zero Hunger) within decentralised and multi-level governance contexts. This gap is particularly evident in the Asia-Pacific region, where fragmented institutional mandates and uneven implementation capacity continue to challenge policy coherence and coordination (FAO 2023; Kanie and Biermann 2017).

To address this gap, the present study applies the collaborative governance framework advanced by Chris Ansell (2018) and Emerson and Nabatchi (2015) to the domain of food security policy in Indonesia. These frameworks conceptualise collaborative governance as a process characterised by principled engagement, shared motivation, and joint capacity for action among public and non-state actors. However, in hierarchical and decentralised systems such as Indonesia's, the effectiveness of these processes also depends on multi-level institutional coherence namely, the alignment of policy goals, regulatory instruments, organisational mandates, and implementation mechanisms across national, regional, and village levels.

Within this analytical framework, collaborative governance is positioned as a mediating mechanism between global SDG commitments particularly SDG 2 (Zero Hunger) and SDG 17 (Partnerships for the Goals) and food security outcomes at the local level. By fostering cross-sectoral coordination, stakeholder engagement, and adaptive policy implementation, collaborative arrangements are expected to enhance policy coherence, strengthen legitimacy through participatory processes, and improve resource mobilisation across governance levels (Andonova and Mitchell 2010; Bexell and Jönsson 2019; Kanie and Biermann 2017).

Figure 1 presents the conceptual framework linking SDG 17, collaborative governance, and food security outcomes. In this study, SDG 17 based partnerships are conceptualised as an enabling context that supports collaborative governance processes in food security policy. Collaborative governance is operationalized through three core dimensions: institutional design, stakeholder engagement, and adaptive coordination.

These collaborative governance processes are expected to shape the quality of food security governance, which is reflected in three key dimensions: policy coherence, institutional legitimacy (inclusive and legitimate implementation), and resilience and policy learning. Specifically, institutional design influences policy coherence across sectors; stakeholder engagement strengthens inclusive and legitimate implementation; and adaptive coordination enhances resilience and policy learning through feedback and institutional adaptation. In turn, improved food security governance quality provides the enabling conditions for achieving substantive food security outcomes as defined by the FAO namely availability, access, utilisation, and stability (Figure 2).

3. Methodology

3.1. Research design

This study adopts a qualitative case study design with a governance process-tracing approach to address three research objectives: (1) to examine how collaborative governance operates in the formulation and implementation of food security policy in Indonesia, (2) to identify enabling and constraining factors

affecting collaborative effectiveness, and (3) to draw policy-relevant lessons for achieving the SDGs in the Asia-Pacific region.

A qualitative approach is particularly suitable for investigating complex governance processes involving multiple actors, institutional arrangements, and policy dynamics that cannot be fully captured through quantitative indicators alone (Yin 2018). Process tracing is employed to analyse how collaborative governance mechanisms such as institutional design, stakeholder engagement, and adaptive coordination shape policy implementation and governance outcomes across multiple levels of authority.

By focusing on causal processes and institutional dynamics, the research design enables a systematic examination of how collaborative governance operates in practice (RQ1), what factors enable or constrain its effectiveness (RQ2), and how Indonesia's experience offers transferable insights for SDG-oriented governance debates in the Asia-Pacific region (RQ3).

3.2. Case selection and institutional context

Indonesia is selected as a critical and information-rich case for examining collaborative governance in food security policy due to its decentralised governance structure, strong formal commitment to the Sustainable Development Goals (SDGs), and persistent food security challenges, particularly in rural and eastern regions. The country has explicitly aligned its food security agenda with SDG 2 (Zero Hunger) through national development plans and sectoral policies, while also promoting multi-stakeholder partnerships under SDG 17 (Partnerships for the Goals). This combination of ambitious global commitments and uneven local outcomes provides a suitable context for analysing how collaborative governance operates in practice (RQ1).

Food security governance in Indonesia involves a complex institutional landscape spanning multiple governance levels and sectors. Key actors include national planning agencies (e.g. Bappenas), line ministries (e.g. the Ministry of Agriculture and the Ministry of Villages), provincial and district governments, village authorities, civil society organisations, community-based groups, and private-sector actors. This multi-level and multi-actor configuration creates both opportunities and constraints for collaboration, making Indonesia an appropriate case for identifying the institutional, organisational, and political factors that enable or hinder effective collaborative arrangements (RQ2).

The study focuses on the formulation and implementation of food security policy at both national and sub-national levels, with particular attention to how national strategies and SDG commitments are translated into village-level initiatives through collaborative processes. By examining these vertical and horizontal interactions, the study is able to assess how collaborative governance mechanisms shape policy coherence, institutional legitimacy, and adaptive capacity in practice. Insights derived from Indonesia's experience are then used to inform broader policy and governance debates on achieving the SDGs in the Asia-Pacific region, especially in contexts characterised by decentralised authority and fragmented institutional mandates (RQ3).

3.3. Data collection

This study relied on three main sources of data to ensure both breadth and depth in understanding the governance of food security in Indonesia and its linkage to the Sustainable Development Goals (SDGs). Data collection was conducted over a twelve-month period, from March 2024 to February 2025, allowing the study to capture both policy dynamics and implementation processes across planning and execution cycles. Data were collected using multiple qualitative sources to capture both the operational dynamics of collaborative governance (RQ1) and the factors enabling or constraining its effectiveness (RQ2). A triangulated data collection strategy was employed to ensure analytical depth and credibility.

To address RQ1, interviews explored how collaborative processes operate in practice, including coordination mechanisms, decision-making procedures, and inter-organisational interactions. To address RQ2, respondents were asked to identify factors that facilitate or hinder collaboration, such as leadership capacity, institutional coherence, resource alignment, trust, and power relations. Semi-structured interviews were conducted with approximately thirty key informants, selected using purposive sampling to reflect the multi-sectoral nature of food security governance at different governance levels, including: National and

sub-national government officials, Village authorities, Civil society and community-based organisations, Private-sector and cooperative actors. Government informants included officials from the Ministry of Agriculture, the National Food Security Agency, and village administrations, as well as representatives from health, social protection, and regional development agencies at the sub-national level who are directly involved in nutrition, stunting reduction, and poverty alleviation programmes. While the Ministry of Agriculture plays a central role in food availability and production, the inclusion of actors from complementary sectors allowed the study to examine coordination across policy domains essential to SDG 2 implementation.

Non-state informants included representatives from civil society organisations, women's groups, and farmer associations, whose roles are critical in community-level implementation and social mobilisation. The study also included private sector actors, such as agricultural cooperatives and offtakers, reflecting their increasing involvement in food value chains and market access. Interviews explored respondents' experiences of inter-organisational collaboration, institutional challenges, and perceptions of how SDG commitments were integrated into food security policies and programmes. Each interview lasted between 45 and 60 minutes and was audio-recorded with informed consent to ensure accuracy and reliability.

The first source consisted of document analysis, encompassing a broad range of regulatory frameworks, national policy documents, and strategic planning instruments that explicitly shape food security governance and SDG implementation. These included the National Medium-Term Development Plan (RPJMN) 2020–2024, Presidential Regulation No. 72/2021 on the Acceleration of Stunting Reduction, and sectoral regulations related to agriculture, health, social protection, and village development. In addition, analytical reports and datasets produced by Statistics Indonesia (BPS), the Food and Agriculture Organisation (FAO), and the United Nations Development Programme (UNDP) were examined to capture key indicators of food security, nutrition, poverty, and SDG progress. At the sub-national level, local development plans, village SDG reports, and programme evaluations from selected provincial, district, and village governments were reviewed to assess how national policy frameworks were translated into local action. These documents provided evidence of how collaborative governance is structured institutionally (RQ1) and where coordination gaps or inconsistencies occur (RQ2).

The second source involved secondary statistical data, primarily drawn from Statistical Center Bureau (BPS 2023). Indicators on poverty rates, nutritional outcomes, stunting prevalence, and agricultural production trends. These national statistics were complemented by regional and international comparative reports on food security governance in the Asia-Pacific region, enabling the study to situate Indonesia's experience within a broader regional context and to identify transferable governance lessons. Taken together, these two data collection strategies, provided a robust empirical foundation for analysing how collaborative governance operates across sectors and levels of government in Indonesia. This triangulated approach strengthened the study's capacity to assess how integrated governance arrangements support or constrain the achievement of SDG 2 (Zero Hunger) and its interlinkages with related development goals.

3.4. Data analysis

The study employs thematic analysis (Braun and Clarke 2006) combined with process tracing to examine collaborative governance mechanisms and their effects on food security policy implementation. The analysis is structured around the three research questions. For RQ1, interview transcripts and policy documents were coded according to three core dimensions of collaborative governance: 1) Institutional design (e.g. coordination structures, formal mandates, policy alignment), 2) Stakeholder engagement (e.g. participation, inclusiveness, trust-building), and 3) Adaptive coordination (e.g. information sharing, learning mechanisms, leadership). This enabled a systematic examination of how actors interact, how decisions are made, and how collaboration operates across governance levels.

For RQ2, the analysis identified enabling factors (e.g. leadership support, institutional coherence, shared goals, resource availability, trust) and constraining factors (e.g. fragmented mandates, weak coordination, budget misalignment, power asymmetries, limited local capacity). Process tracing was used to link these factors to specific implementation outcomes, highlighting where collaboration was strengthened or weakened.

The analysis also examined how collaborative governance processes influenced the quality of food security governance in terms of policy coherence, institutional legitimacy, and resilience and policy learning, explaining not only what happened in policy implementation but also why certain collaborative arrangements succeeded or failed.

To address RQ3, the study applies analytical generalisation (Yin 2018) by comparing the empirical findings with established collaborative governance theories (Emerson and Nabatchi 2015) and the SDG governance framework. This theory-based interpretation allows the identification of transferable lessons for SDG-oriented governance in the Asia-Pacific context, particularly regarding policy coherence, institutional legitimacy, and adaptive coordination under SDG 2 and SDG 17.

3.5. Validity and reliability

To enhance credibility, the study employed data triangulation (multiple sources), peer debriefing with academic colleagues, and member-checking with selected informants. Transferability was addressed by providing thick descriptions of the policy context, enabling readers to assess applicability to other settings. Dependability and confirmability were supported by maintaining an audit trail of coding decisions and analytical memos (Carter et al. 2014).

3.6. Ethical considerations

Ethical clearance was obtained from the university's research ethics committee. Informed consent was secured from all participants prior to interviews. Anonymity and confidentiality were guaranteed, and all data were stored securely. These measures align with established ethical standards for qualitative research in public administration (Israel and Hay 2006).

4. Findings

Over the past decade, the Indonesian government has placed food security at the center of its national development agenda, aligning policy priorities with SDG 2 (Zero Hunger) and related goals on health, poverty reduction, and sustainable livelihoods. Key policy instruments such as the National Medium-Term Development Plan (RMTDP), the National Food Security Strategy, and Presidential Regulation No. 72/2021 on Stunting Reduction emphasise integrated approaches that combine food availability, nutrition, social protection, and community-based interventions. At the same time, programmes such as village food resilience initiatives, stunting convergence actions, and food system strengthening efforts have expanded the involvement of local governments, civil society organisations, and community groups in food security implementation.

Despite these commitments, persistent challenges remain in translating national strategies into effective and coordinated action at the local level. Fragmented institutional mandates, uneven local capacity, and weak inter-sectoral coordination continue to affect policy coherence and implementation quality, particularly in rural and eastern regions. These conditions make Indonesia a relevant case for examining how collaborative governance operates in practice, which factors enable or constrain its effectiveness, and what lessons can be drawn for SDG-oriented governance in the Asia-Pacific region.

Against this backdrop, the following sections present the study's findings and discussion, structured around three research questions: (1) how collaborative governance operates in the formulation and implementation of food security policy in Indonesia, (2) the enabling and constraining factors shaping collaborative effectiveness, and (3) the broader lessons Indonesia's experience offers for achieving the SDGs.

4.1 How collaborative governance operates in food security policy in Indonesia

To explain the operation of collaborative governance in Indonesia's food security policy, the discussion first addresses institutional design and the alignment of policies across multiple governance levels. The operation of collaborative governance in Indonesia's food security policy reflects a complex interaction

between formal institutional arrangements, multi-actor engagement, and adaptive coordination mechanisms across governance levels. At the policy level, Indonesia has explicitly aligned its food security agenda with SDG 2 (Zero Hunger) through the National Medium-Term Development Plan (RMTDP 2020–2024) and Presidential Regulation No. 72/2021 on the Acceleration of Stunting Reduction. These instruments emphasise cross-sectoral coordination among agriculture, health, social protection, and village development actors, while promoting multi-stakeholder partnerships in line with SDG 17.

Indonesia's food security governance is formally structured through a network of national and sub-national institutions. The National Development Planning Agency (Bappenas), the Ministry of Agriculture, the Ministry of Villages (Kemendes PDTT), the Ministry of Health, and the National Food Agency are mandated to coordinate food availability, nutrition, and community-based food resilience programmes (Bappenas, 2020; Presidential Regulation No. 66/2021). At the sub-national level, provincial and district governments are responsible for adapting national strategies into regional development plans and village programmes.

Despite this formal structure, policy implementation remains fragmented. Bank (2020) reports that food security programmes in Indonesia are often characterised by overlapping mandates, sectoral budgeting, and limited synchronisation between national and local planning cycles. Similarly, FAO (2023) highlights coordination gaps between agriculture, nutrition, and social protection sectors, which constrain integrated food security interventions. Interview evidence confirms these institutional challenges. A district-level official noted:

“Each agency has its own programme and budget line. Coordination happens mostly during formal meetings, but implementation still follows sectoral priorities.” (Interview, May 2025).

This reflects a governance structure in which collaboration is formally institutionalised but operationally segmented. From a collaborative governance perspective, such fragmentation weakens principled engagement and joint capacity for action (Emerson and Nabatchi 2015). While coordination forums exist, they often function as administrative reporting platforms rather than as spaces for substantive policy integration, as envisioned by (Ansell and Gash 2008).

In addition to institutional design and multi-level policy alignment, the analysis further explores stakeholder engagement and inclusive policy processes as a second core dimension of collaborative governance. Indonesia has institutionalised participatory mechanisms in food security and nutrition policy, particularly through village-level planning forums (*musyawarah desa*) and stunting convergence programmes. Presidential Regulation No. 72/2021 requires the involvement of village governments, community health workers, women's groups, and civil society organisations in stunting prevention and nutrition programmes. The Ministry of Villages has also promoted village food resilience initiatives (*Desa Tangguh Pangan*) to strengthen local food systems (Triyono 2025).

These policies have expanded stakeholder engagement in food security governance. According to the Sufri et al. (2024) over 80% of districts have implemented multi-sectoral stunting convergence actions involving health, social protection, and village authorities. UNICEF (2023) further reports that community-based nutrition and food access programmes have contributed to improvements in household-level food utilisation and dietary diversity in several regions. Interview data illustrate how these participatory arrangements operate in practice. A community health worker explained: ‘We discuss nutrition and food access issues together with village leaders and women's groups, so the programmes reflect local needs.’ (Interview, May 2025).

However, participation quality remains uneven. Bank (2020) finds that local forums often have limited influence over budget allocation, with most funding decisions still driven by sectoral priorities at higher administrative levels. This constrains meaningful stakeholder influence and reinforces power asymmetries between government agencies and community actors. As collaborative governance theory suggests, inclusiveness alone does not ensure effective collaboration unless it is supported by trust, shared motivation, and balanced power relations (Ansell and Gash 2008; Emerson and Nabatchi 2015).

Building on the preceding aspects, the analysis further examines adaptive coordination and learning mechanisms as a third essential component in understanding how collaborative governance operates. Adaptive coordination in Indonesia's food security governance has increasingly relied on digital monitoring

systems and cross-sector data integration, particularly in stunting reduction and food vulnerability mapping. The Food Security and Vulnerability Atlas (FSVA), developed by the National Food Agency and Bappenas, integrates data on food availability, access, and nutrition risks across districts (Budiman et al. 2025). This system supports evidence-based targeting of food assistance and nutrition programmes.

In addition, the Ministry of Social Affairs has linked food assistance programmes to integrated social protection databases (DTKS), enabling more precise identification of vulnerable households (Bank 2020). These tools enhance learning and policy responsiveness by allowing governments to adjust interventions based on updated data. A provincial official stated: 'Data integration helps us see which villages have the highest nutrition risks, so we can coordinate interventions more efficiently.' (Interview, May 2025).

However, adaptive coordination capacity varies across governance levels. BPS (2023) reports significant disparities in digital infrastructure and administrative capacity between urban and rural districts, limiting the ability of village governments to use data systems effectively. As a result, policy learning remains centralised, with limited bottom-up feedback and experimentation. This weakens the joint capacity for action emphasised in the Emerson and Nabatchi (2015) framework and constrains adaptive governance at the local level.

To summarise the empirical findings presented in Section 4.1, Table 1 provides a structured overview of how collaborative governance operates in Indonesia's food security policy across three key dimensions: institutional design, stakeholder engagement, and adaptive coordination. The table highlights the main policy instruments, observed implementation patterns, and their implications for governance performance.

Taken together, these findings indicate that collaborative governance in Indonesia's food security policy operates through a hybrid arrangement combining hierarchical control with selective participatory mechanisms. Institutional design provides formal coordination structures, but fragmentation across sectors and governance levels limits policy coherence. Stakeholder engagement enhances legitimacy and local relevance, yet is constrained by limited influence over resource allocation. Adaptive coordination enables learning and responsiveness, but uneven local capacity restricts decentralised innovation.

These patterns suggest that collaborative governance in Indonesia functions primarily as a mediated process rather than a fully institutionalised governance regime. Collaboration supports incremental policy adjustments such as improved targeting of nutrition programmes and better coordination of village-level initiatives but has not yet produced transformative integration across the food, health, and social protection sectors.

From an SDG perspective, this operational pattern underscores the importance of multi-level institutional coherence. Without stronger alignment between national strategies, sectoral programmes, and village-level implementation, collaborative governance risks remaining procedural rather than substantive. Strengthening institutional design, deepening stakeholder engagement, and enhancing adaptive coordination capacities are therefore critical for translating SDG commitments into effective and resilient food security policies in Indonesia.

Table 1. Summary of how Collaborative Governance Operates in Indonesia's Food Security Policy (RQ1).

Dimension	Key policy instruments & actors	Empirical patterns	Implications for governance
Institutional Design & Multi-Level Policy Alignment	RMTDP 2020–2024; Presidential Regulation No. 72/2021; Bappenas; Ministry of Agriculture; Ministry of Health; Kemendes PDTT; National Food Agency	Formal coordination structures exist, but implementation remains fragmented due to overlapping mandates, sectoral budgeting, and unsynchronised planning cycles (World Bank 2020; FAO 2023; interview data).	Policy coherence is only partially achieved; coordination forums function more as administrative platforms than as spaces for integrated decision-making.
Stakeholder Engagement & Inclusive Processes	Village forums (musyawarah desa); stunting convergence programmes; community health workers; women's groups; CSOs	Community actors are involved in discussions and programme implementation, but have limited influence over budget allocation and strategic priorities (World Bank 2020; MoH, 2022; interview data).	Local legitimacy improves, but participation remains largely consultative and constrained by power asymmetries.
Adaptive Coordination & Policy Learning	Food Security and Vulnerability Atlas (FSVA); Integrated Social Protection Data (DTKS); Ministry of Social Affairs; BPS	Data systems support evidence-based targeting, but uneven digital infrastructure and administrative capacity limit local-level learning and innovation.	Adaptive governance remains centralised, with limited bottom-up feedback and experimentation.

Source: Developed by the author based on interview data, national policy documents (RMTDP 2020–2024; Presidential Regulation No. 72/2021), and secondary sources including World Bank (2020), FAO (2023).

4.2 Enabling and constraining factors in collaborative food security governance (RQ2)

The effectiveness of collaborative governance in Indonesia's food security policy is shaped by a combination of enabling and constraining factors operating across institutional, organisational, and socio-political dimensions. While formal policy frameworks promote cross-sectoral coordination and multi-stakeholder engagement, practical implementation outcomes vary depending on leadership capacity, institutional coherence, resource alignment, power relations, and local-level capabilities.

First, leadership capacity plays a crucial role in shaping the effectiveness of collaborative governance, particularly in facilitating coordination and sustaining stakeholder commitment. One of the most important enabling factors for collaborative governance is the presence of facilitative leadership at both national and sub-national levels. Presidential Regulation No. 72/2021 on the Acceleration of Stunting Reduction mandates the coordination of multiple ministries and local governments under a unified national framework, signalling strong political commitment to integrated food and nutrition governance. This regulatory mandate has strengthened inter-agency coordination, particularly in stunting prevention and nutrition-sensitive food programmes.

At the local level, district heads and village leaders play a critical role in mobilising stakeholders, aligning sectoral programmes, and sustaining collaborative initiatives. Interview data suggest that proactive leadership helps bridge institutional boundaries and encourages shared problem-solving. A village official stated: 'When the district leader actively supports coordination, agencies are more willing to work together and share responsibilities.' This finding aligns with (Ansell and Gash 2008; Chris Ansell, 2018) argument that facilitative leadership is essential for overcoming institutional fragmentation and building trust among stakeholders.

However, leadership quality is uneven across regions. In some districts, leadership turnover and weak political commitment disrupt collaborative arrangements, leading to fragmented implementation. This inconsistency limits the sustainability of collaborative governance and reinforces dependence on individual actors rather than institutionalised coordination mechanisms.

Second, institutional coherence determines the extent to which policies and programmes are aligned across sectors and levels of government. Institutional coherence defined as the alignment of policy goals, mandates, and implementation mechanisms across governance levels is a key enabling condition for effective collaboration. Indonesia's national development planning system formally integrates food security, nutrition, and social protection objectives through the RMTDP 2020–2024 and sectoral action plans. Susanty et al. (2022) emphasises cross-ministerial coordination in addressing food insecurity and stunting.

Nevertheless, empirical evidence indicates that policy coherence remains weak in practice. Bank (2020) reports that food security programmes often operate in silos, with limited synchronisation between agriculture, health, and social protection budgets. Interviewees frequently mentioned misaligned planning cycles and reporting requirements: 'Each sector has its own indicators and timeline, so coordination becomes procedural rather than strategic.'

This institutional misalignment constrains joint capacity for action, as emphasised in Ansell and Gash (2008); Emerson and Nabatchi (2015) framework. Without coherent policy instruments and harmonised implementation guidelines, collaborative arrangements struggle to move beyond information-sharing toward integrated action.

Third, resource alignment influences the ability of actors to implement agreed actions effectively. Resource availability and budget alignment play a critical role in shaping the effectiveness of collaborative governance in Indonesia's food security policy. Although food security is recognised as a national priority, funding for related programmes is distributed across multiple ministries and levels of government. Sectoral budget allocations for agriculture, nutrition, and social protection are managed independently, with limited mechanisms for pooled financing or integrated programme funding as stated by Ministry of finance (Akbar et al. 2025).

This fragmentation complicates collaborative planning and weakens accountability across agencies. As one provincial planner explained: 'We are expected to coordinate programmes, but the budgets remain separated. This makes joint implementation difficult.' (Interview, June 2025). While donor-supported initiatives and special grants occasionally facilitate cross-sector collaboration, such arrangements are typically temporary and project-based. Consequently, collaborative governance remains vulnerable to fiscal constraints and shifting budget priorities, limiting the sustainability of integrated food security interventions.

Fourth, power relations among stakeholders affect the inclusiveness and balance of decision-making processes. Power imbalances between government agencies and non-state actors also shape the quality of collaboration. Although participatory mechanisms are formally institutionalised, decision-making authority remains concentrated within government institutions. Civil society organisations and community groups often participate in consultations but have limited influence over final policy decisions and budget allocations.

Bank (2020) highlights that local forums frequently serve advisory rather than decision-making functions. Interview data reinforce this observation: 'We are invited to meetings, but the main decisions are already made.' Such power asymmetries reduce trust and weaken shared motivation, undermining the collaborative dynamics envisioned by Ansell and Gash (2008). Without more inclusive decision-making structures, collaboration risks becoming symbolic rather than transformative.

Finally, local-level capabilities condition how policies are translated into practice on the ground. Adaptive coordination relies heavily on local administrative capacity and access to digital infrastructure. While national agencies benefit from integrated data systems such as the Food Security and Vulnerability Atlas (FSVA) and social protection databases (DTKS), many village governments lack the technical skills and infrastructure to use these tools effectively.

BPS (2023) reports significant disparities in internet access and digital literacy between urban and rural areas, particularly in eastern Indonesia. Limited local capacity constrains evidence-based planning, monitoring, and policy learning. A village official explained: 'We receive data from the district, but we don't always understand how to use it for planning.' This capacity gap weakens adaptive coordination and restricts bottom-up learning processes, reducing the resilience of food security governance systems.

Taken together, these findings indicate that collaborative governance in Indonesia's food security policy is enabled by strong political commitment, facilitative leadership, and formal coordination frameworks. However, its effectiveness is constrained by institutional incoherence, fragmented budgets, power asymmetries, and uneven local capacity. From a theoretical perspective, these dynamics reinforce the argument that collaborative governance outcomes depend not only on stakeholder participation, but also on institutional design, leadership quality, and resource alignment (Chris Ansell 2018; Emerson and Nabatchi 2015). In Indonesia's hierarchical yet decentralised system, collaboration is often shaped by structural constraints that limit its transformative potential.

For collaborative governance to function more effectively, stronger multi-level institutional coherence, integrated budgeting mechanisms, and capacity-building initiatives are required. Without these enabling conditions, collaborative arrangements risk remaining procedural and project-based, rather than becoming sustained governance regimes capable of delivering integrated food security outcomes. To summarise the empirical patterns identified in this section, Table 2 presents a matrix of the key enabling and constraining factors shaping collaborative governance in Indonesia's food security policy. The table synthesises evidence from interviews, policy documents, and secondary reports to highlight how leadership, institutional coherence, resource alignment, participation, power relations, and local capacity influence the effectiveness of collaborative arrangements.

Table 2. Enabling and Constraining Factors in Collaborative Food Security Governance (RQ2).

Dimension	Enabling factors	Constraining factors	Empirical evidence
Leadership & Political Commitment	Strong national mandate through Presidential Regulation No. 72/2021; proactive district and village leaders facilitate inter-agency coordination	Leadership turnover; inconsistent political support across regions	Interviews with district officials; MoH (2022)
Institutional Coherence	Formal integration of food security, nutrition, and social protection in RMTDP 2020–2024	Overlapping sectoral mandates; unsynchronised planning cycles	World Bank (2020); Bappenas (2020)
Resource Alignment	Special grants and donor-supported programmes enable cross-sector collaboration	Budget silos across ministries; limited pooled financing	Ministry of Finance (2022); interview data
Stakeholder Participation	Village forums and stunting convergence mechanisms institutionalise participation	Participation often symbolic; limited influence on budget decisions	Interviews; World Bank (2020)
Power Relations	Formal recognition of CSOs and community groups	Decision-making remains centralised; power asymmetries persist	Interviews; Fung (2015)
Local Capacity & Digital Infrastructure	National data systems (FSVA, DTKS) support evidence-based targeting	Digital divide; limited technical capacity at village level	FAO (2023)

Source: Developed by the author based on interview data, national policy documents (Presidential Regulation No. 72/2021; RMTDP 2020–2024), and secondary sources including World Bank (2020), FAO (2023).

4.3. Lessons for SDG-oriented governance in the Asia-Pacific context (RQ3)

Indonesia's experience with collaborative governance in food security policy offers several transferable lessons for SDG-oriented governance in the Asia-Pacific region, particularly in contexts characterised by decentralised authority, multi-level institutions, and persistent development disparities. While institutional arrangements and political systems vary across countries, the Indonesian case illustrates how the effectiveness of SDG 2 (Zero Hunger) implementation depends not only on technical interventions, but also on the quality of governance processes and inter-actor coordination.

Building on these insights, several key lessons can be identified for advancing SDG-oriented governance in the Asia-Pacific context. First, strengthening multi-level institutional coherence is essential to ensure alignment between national priorities and local implementation, particularly in decentralised governance settings. A key lesson from Indonesia is the importance of aligning national SDG commitments with sub-national implementation mechanisms. Despite strong national mandates and policy frameworks, fragmented sectoral responsibilities and unsynchronised planning cycles often limit policy coherence at the local level. Similar coordination challenges have been documented in other Asia-Pacific countries, where food security policies are implemented through multiple ministries and decentralised administrative systems (FAO 2023; Kanie and Biermann 2017).

For SDG-oriented governance to be effective, institutional coherence must be strengthened through clearer role differentiation, harmonised planning instruments, and integrated monitoring systems across governance levels. This lesson underscores that collaborative governance should not only facilitate dialogue, but also institutionalise alignment between policy goals, regulatory frameworks, and implementation practices.

Comparable coordination challenges are evident across the Asia-Pacific region. In the Philippines, multisectoral food and nutrition governance is formally supported by inter-agency coordination bodies, yet implementation often remains fragmented due to weak enforcement of cross-sector alignment at the local government level (Bank 2020). Similarly, India's POSHAN Abhiyaan (National Nutrition Mission) emphasises 'convergence' across health, agriculture, sanitation, and social protection sectors, but studies report that coordination gaps and unclear accountability mechanisms frequently limit its effectiveness at sub-national levels (Aayog 2020; Agrawal 2021; Ramani et al. 2021). In Vietnam, Bank (2020) highlights the proliferation of nutrition-related initiatives across ministries without a strong convening authority to ensure policy coherence, reinforcing the Indonesian finding that institutional alignment across governance levels is a critical but difficult governance challenge for SDG-oriented food security policy.

Second, institutionalising inclusive and legitimate participation is critical to enhance stakeholder trust, ownership, and the responsiveness of policy processes. Indonesia's experience also highlights the need to move beyond formal participation toward more substantive stakeholder engagement. While participatory mechanisms such as village forums and multi-sector coordination platforms are widely institutionalised, power asymmetries and limited influence over budget decisions often constrain meaningful community involvement. Similar patterns are observed in other Asia-Pacific contexts, where participation is frequently consultative rather than decision-oriented (Fung 2015; Mansuri and Rao 2013).

This suggests that SDG 17 based partnerships should prioritise not only the inclusion of diverse actors, but also the redistribution of decision-making authority. Strengthening institutional legitimacy requires mechanisms that allow civil society organisations, community groups, and local governments to shape priorities, allocate resources, and monitor outcomes, particularly in food security and nutrition programmes affecting vulnerable populations.

Patterns of symbolic participation are also observed in other Asia-Pacific contexts. In India and the Philippines, community participation in food and nutrition programmes is often limited to consultation and information-sharing, with limited influence over budget allocation and policy priorities (Mansuri and Rao 2013). In Thailand, multisectoral policy initiatives similarly face challenges in translating stakeholder engagement into substantive decision-making authority, as sectoral hierarchies and bureaucratic dominance continue to shape policy outcomes (Unger and Mahakanjana 2016). These experiences mirror Indonesia's situation, where formal participatory mechanisms exist, but power asymmetries constrain meaningful community influence. This suggests that SDG 17 based partnerships across the region require not only inclusive forums, but also institutional reforms that redistribute decision-making power to enhance legitimacy.

Third, enhancing adaptive coordination and policy learning enables governance systems to respond more effectively to dynamic challenges and uncertainties in food security. The Indonesian case demonstrates that adaptive coordination supported by data integration, inter-agency task forces, and feedback mechanisms can improve the responsiveness of food security governance. Tools such as the Food Security and Vulnerability Atlas (FSVA) and integrated social protection databases have enabled more targeted interventions in stunting reduction and food assistance programmes.

However, uneven digital infrastructure and limited local capacity constrain decentralised learning and innovation. Similar capacity gaps are evident across the Asia-Pacific region, particularly in rural and remote areas (FAO 2023). For SDG-oriented governance to be resilient, investments in digital infrastructure, technical skills, and local analytical capacity are essential. These investments enable governments to adapt policies based on real-time evidence, respond to shocks, and institutionalise policy learning processes.

Evidence from the wider Asia-Pacific region further supports the importance of adaptive coordination capacity. In Pacific Island countries, food security governance is increasingly shaped by climate shocks and market volatility, yet limited digital infrastructure and administrative capacity restrict the use of data for policy learning and adaptive planning. In Vietnam and Cambodia, integrated nutrition and food security monitoring systems exist, but local governments often lack the technical skills to translate data into responsive interventions (Bank 2020). These regional patterns reinforce the Indonesian finding that adaptive coordination depends not only on the availability of data systems, but also on sustained investments in local capacity, digital infrastructure, and institutional learning mechanisms.

Fourth, balancing hierarchical control with collaborative flexibility is necessary to maintain policy direction while allowing context-sensitive adjustments at the local level. Another lesson from Indonesia concerns the hybrid nature of collaborative governance. While hierarchical authority remains central to policy implementation, selective collaborative mechanisms have helped improve coordination and legitimacy in food security programmes. This balance between central leadership and local collaboration reflects a broader governance pattern in many Asia-Pacific countries, where strong state institutions coexist with growing demands for participatory governance.

The Indonesian case suggests that collaborative governance does not require the replacement of hierarchical structures, but rather their strategic adaptation. Effective SDG implementation can be achieved by embedding collaborative processes within existing administrative systems, provided that institutional design supports flexibility, cross-sector coordination, and stakeholder engagement.

Similar hybrid governance patterns are evident across the Asia-Pacific region, where hierarchical state control coexists with selective collaborative mechanisms. In China and Viet Nam, food security and nutrition policies remain strongly centralised, yet local governments are increasingly encouraged to engage community organisations and private actors in implementation to enhance responsiveness and legitimacy (Bank 2020). In Thailand, collaborative policy initiatives often operate within rigid bureaucratic structures, resulting in partial flexibility but limited institutional autonomy for non-state actors (Unger and Mahakanjana 2016). Meanwhile, in the Philippines, decentralisation has expanded local discretion, but national agencies continue to exert strong control through performance targets and funding mechanisms, shaping the scope of collaboration (Bank 2020). These cases mirror Indonesia's experience, where collaborative governance does not replace hierarchical authority but is embedded within it. This suggests that across the region, effective SDG implementation depends on calibrating the balance between central leadership and local collaborative flexibility, rather than pursuing full decentralisation of governance authority.

To further clarify how Indonesia's experience compares with other Asia-Pacific countries, [Table 3](#) summarises key governance patterns in the implementation of food security and nutrition policies. The matrix highlights similarities and differences in institutional coherence, participation, adaptive coordination, and the balance between hierarchical control and collaborative flexibility, reinforcing the analytical generalisation of the study's findings.

Fifth, these lessons have significant implications for the implementation of SDG 2 (Zero Hunger) and SDG 17 (Partnerships for the Goals), underscoring that achieving SDG 2 through SDG 17 requires more than formal commitments and programmatic interventions, but also depends on the quality of governance processes, coordination mechanisms, and stakeholder engagement. Collaborative governance must be supported by coherent institutions, inclusive participation, adaptive coordination, and balanced power

Table 3. Comparative Lessons on Collaborative Governance for Food Security in Asia-Pacific.

Governance dimension	Indonesia	Philippines	India	Viet Nam	Thailand	Pacific Islands
Multi-level Institutional Coherence	Strong national SDG mandates, but fragmented sectoral implementation and unsynchronised planning cycles	Formal multisectoral coordination bodies exist, but weak enforcement at local level	POSHAN Abhiyaan promotes convergence, yet accountability gaps limit coordination	Multiple initiatives across ministries without strong convening authority	Sectoral silos hinder cross-sector policy integration	Limited institutional coordination due to small administrative capacity
Inclusive & Legitimate Participation	Village forums exist, but participation often consultative	Community engagement present, but limited influence on budgets	Participation mainly informational, not decision-oriented	CSOs involved, but state dominance remains strong	Stakeholder engagement constrained by bureaucratic hierarchies	Traditional leadership structures shape participation
Adaptive Coordination & Policy Learning	National data systems (FSVA, DTKS) exist, but local digital capacity is uneven	Nutrition data used, but local analytical skills vary	Digital monitoring exists, but local learning mechanisms weak	Monitoring systems exist, but local use is limited	Data integration constrained by institutional capacity	Climate adaptation learning limited by resources
Hierarchy vs Collaborative Flexibility	Strong central control with selective local collaboration	Decentralised implementation, but national agencies retain control via funding	Central guidelines dominate local discretion	Highly centralised governance with limited flexibility	Bureaucratic rigidity limits collaborative autonomy	Governance relies on informal community coordination
Key Governance Lesson	Collaboration works best with institutional coherence and local capacity support	Enforcement mechanisms needed to sustain convergence	Coordination must be backed by accountability	Convening authority is critical	Flexibility requires institutional reform	Trust and local legitimacy are essential

Source: Compiled by the author based on FAO (2023), Mansuri and Rao (2013), NITI Aayog (2020), Pongsiri (2014), and interview-based findings from Indonesia.

relations. Without these conditions, partnerships risk becoming symbolic rather than transformative. Indonesia's experience thus offers a governance-oriented perspective on SDG implementation in the Asia-Pacific region: progress toward Zero Hunger depends not only on food production and nutrition programmes, but also on the institutional capacity to coordinate, learn, and govern collaboratively across multiple levels and sectors.

This study set out to examine how collaborative governance operates in Indonesia's food security policy (RQ1), identify enabling and constraining factors shaping its effectiveness (RQ2), and draw broader lessons for SDG-oriented governance in the Asia-Pacific region (RQ3). Synthesising the empirical findings, this section discusses the theoretical contributions of the study, outlines policy implications, and highlights limitations and directions for future research.

From the theoretical contribution aspect, this study contributes to the collaborative governance literature by extending its application to the domain of food security policy within a decentralised yet hierarchical governance system. While classic models of collaborative governance emphasise principled engagement, shared motivation, and joint capacity for action (Ansell and Gash 2008; Emerson and Nabatchi 2015), the Indonesian case demonstrates that these processes are strongly conditioned by multi-level institutional coherence.

The findings show that collaboration does not operate as a fully autonomous governance regime, but rather as a hybrid arrangement embedded within hierarchical administrative structures. Formal coordination forums, stakeholder engagement mechanisms, and adaptive data systems exist, yet their effectiveness depends on the alignment of mandates, budgets, and authority across national, sub-national, and village levels. This highlights the importance of incorporating institutional coherence as a complementary analytical lens in collaborative governance theory, particularly for SDG implementation in multi-tiered governance systems.

Moreover, the study refines the understanding of stakeholder participation by showing that inclusiveness alone does not ensure effective collaboration. Meaningful participation requires not only representation but also real influence over policy priorities and resource allocation. Persistent power asymmetries between government and community actors remain a key constraint, highlighting the need to incorporate legitimacy and authority distribution into collaborative governance analysis. Furthermore, the study contributes to the adaptive governance literature by demonstrating that data integration and policy learning, while necessary, are insufficient for resilience. Without adequate local capacity and digital infrastructure, adaptive coordination tends to remain

centralised, limiting bottom-up innovation and adding empirical nuance to debates on learning-oriented governance in the context of SDG implementation.

From a policy perspective, the findings highlight several implications for strengthening food security governance in Indonesia and similar Asia-Pacific contexts. Strengthening institutional coherence through clearer role differentiation, harmonised planning, and synchronised budgeting is essential, particularly at sub-national and village levels. In addition, stakeholder engagement should move beyond consultation toward meaningful decision-making involvement, especially for local governments, civil society, and community actors, to enhance legitimacy and policy relevance.

Furthermore, adaptive coordination requires sustained investment in digital infrastructure and local analytical capacity to support evidence-based policymaking and resilience. At the same time, collaborative governance should be understood as complementing, rather than replacing, hierarchical authority, requiring a balance between central direction and local flexibility.

This study also has limitations. As a qualitative case study of Indonesia, its findings are not statistically generalisable, although they offer analytical insights. Future research could strengthen external validity through comparative or mixed-method approaches and incorporate longitudinal data to examine institutional change over time. Further studies should also explore the roles of digital governance, private-sector actors, and gender-inclusive leadership in advancing SDG 2 and SDG 17 in the Asia-Pacific context.

5. Conclusion

This study examined how collaborative governance operates in Indonesia's food security policy, identified the factors shaping its effectiveness, and explored the broader implications for SDG-oriented governance in the Asia-Pacific region. The findings show that collaboration in Indonesia functions as a hybrid arrangement embedded within hierarchical administrative structures, combining formal coordination mechanisms, multi-actor participation, and emerging data-driven practices. While these processes contribute to policy coherence, institutional legitimacy, and adaptive capacity, their effectiveness is constrained by fragmented institutional mandates, misaligned budgets, power asymmetries, uneven leadership commitment, and limited local capacity particularly at the village level. As a result, collaborative governance often supports incremental improvements rather than fully integrated and transformative food security governance.

The analysis further demonstrates that collaborative governance in Indonesia is shaped not only by institutional design but also by the broader political and administrative environment in which it operates. Formal coordination forums and participatory mechanisms provide important spaces for interaction among government agencies, civil society, and community actors, yet their impact remains uneven due to structural constraints in authority distribution and resource control. This suggests that collaboration is most effective when it is supported by coherent institutional frameworks, facilitative leadership, and mechanisms that translate dialogue into coordinated action.

Moreover, the Indonesian case highlights the importance of adaptive coordination in responding to complex and evolving food security challenges, including nutritional vulnerabilities, market volatility, and climate-related risks. Although integrated data systems and monitoring tools have improved targeting and policy responsiveness, uneven digital infrastructure and limited local analytical capacity restrict the potential for decentralised learning and innovation. Strengthening these adaptive capacities is therefore essential for enhancing the resilience and sustainability of food security governance.

Overall, the study highlights that achieving SDG 2 (Zero Hunger) through SDG 17 based partnerships requires more than technical food and nutrition interventions. It depends on the institutional capacity to align policies across sectors and governance levels, engage stakeholders meaningfully, and adapt through learning-oriented coordination mechanisms. Indonesia's experience, reinforced by comparable patterns across the Asia-Pacific region, suggests that strengthening these governance foundations is essential for translating global SDG commitments into effective local action.

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