From Maps to Action

Strengthening Indonesia's Food Security through an Enhanced Food Security and Vulnerability Atlas 2025 with Localized and Updated Indicators
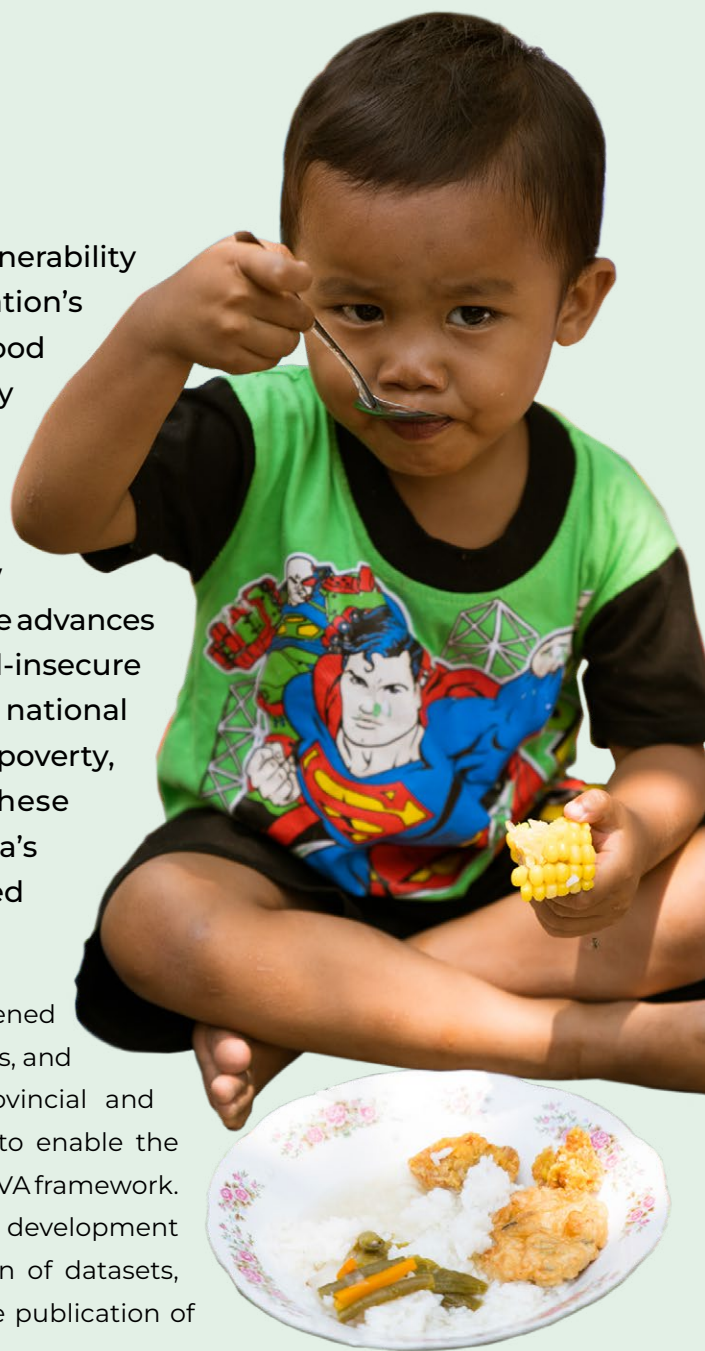
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Summary

Indonesia's 2025 update of its Food Security and Vulnerability Atlas (FSVA) marks a transformative leap in the nation's commitment to building a resilient, data-driven food system. While the FSVA has been updated annually in previous years, the 2025 edition introduces major innovations, including the use of village-level data for over 83,000 villages, expanded sub-district analysis, and the integration of new composite indicators and predictive modeling. These advances enable the more precise identification of food-insecure areas, supporting targeted actions aligned with national priorities, such as reducing stunting, alleviating poverty, and promoting rural development. With these enhancements, FSVA 2025 strengthens Indonesia's capacity to deliver evidence-based, locally tailored interventions across all levels of government.

Throughout 2024, FSVA methodology was strengthened through a series of national consultations, technical reviews, and finalization workshops involving stakeholders from provincial and district levels. This process is part of an ongoing effort to enable the widespread adoption of a modernized, locally responsive FSVA framework. In 2025, the focus shifts to operationalization, involving the development of Small Area Estimation (SAE) models, the identification of datasets, the generation of village-level vulnerability maps, and the publication of updated FSVA outputs in both digital and print formats.

Through this roadmap, FSVA 2025 will not only serve as an essential tool for national food security governance but will also empower local governments with the evidence they need to drive impactful, sustainable action—one district, one village, and one household at a time.

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Background and Rationale

Indonesia's Food Security and Vulnerability Atlas (FSVA) has been a key planning tool since 2005, when it was first developed as the Food Insecurity Atlas (FIA) by the Food Security Agency (BKP), a working unit under the Ministry of Agriculture, in collaboration with the World Food Programme. Renamed FSVA in 2009, it expanded its focus to encompass all aspects of food security, including mapping availability, access, and utilization. While national, provincial, and district-level analyses have improved over time, sub-district and village-level data in many districts remained limited and inconsistent due to capacity and data gaps. FSVA has helped prioritize food and nutrition interventions, but evolving challenges, such as climate risks and changing food systems, require continuous improvement to ensure it remains locally relevant and reliable.

The 2025 update of FSVA is both timely and essential. Existing methodologies, while effective in their era, are no longer sufficient to capture today's complex and localized dynamics of food security. Current analyses, which are predominantly based at the district (kabupaten/kota) level, often mask vulnerabilities that exist at finer spatial scales. Meanwhile, national priorities, such as achieving *Swasembada Pangan* and realizing Indonesia Emas 2045[3], demand sharper, more actionable data to inform local-level decision-making and resource allocation, particularly within the growing importance of Dana Desa (Village Funds) programs[4].

Figure 1: Indonesia's Food Security and Vulnerability Atlas 2024[5]

Recognizing this urgent need, the National Food Agency (NFA/Badan Pangan Nasional) has partnered with the Global Alliance for Improved Nutrition (GAIN) to provide technical assistance and facilitate a comprehensive update of the FSVA methodology. GAIN's support includes strengthening indicator frameworks to align with global best practices, expanding the unit of analysis to sub-district (kecamatan) and village (desa/kelurahan) levels, and integrating Small Area Estimation (SAE) techniques to ensure the generation of robust, locally relevant data.

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3   *Swasembada Pangan* refers to national food self-sufficiency, while Indonesia Emas 2045 is Indonesia's vision to become a high-income nation by its centennial in 2045

4   Dana Desa (village funds), mandated by Law No. 6/2014, are central government transfers to strengthen village development, reduce poverty, and support local services, infrastructure, and community empowerment, including through Village-Owned Enterprises (BUMDes)

5   FSVA data and maps are available at Indonesia's official platform: https://fsva.badanpangan.go.id, managed by the National Food Agency

Beyond updating the FSVA itself, GAIN is also spearheading efforts to integrate FSVA data into the Indonesia Food System Dashboard (*Dasbor Sistem Pangan Indonesia*, or DSPI, at: https://dspi.bappenas.go.id). By embedding FSVA data within the broader DSPI platform, policymakers at all levels will have access to a centralized, interactive, and dynamic repository of food security information. This integration will enhance cross-sectoral planning, facilitate real-time monitoring of food security interventions, support analysis at a granular geographic level, and ensure that Indonesia's food policy frameworks are both evidence-based and future-ready.

The ongoing update of FSVA 2025 is not merely an exercise in technical refinement – it is a strategic investment in building a more resilient, equitable, and sustainable food system for all Indonesians. By modernizing FSVA and linking it to broader food system intelligence platforms, Indonesia is positioning itself as a global leader in integrated food security governance.

Objectives of the 2025 Update

The 2025 update of the FSVA is more than a technical refinement—it represents a strategic leap forward in transforming how Indonesia identifies, understands, and responds to food insecurity. At its core, this update aims to enhance FSVA's ability to guide more targeted, evidence-based interventions – building on its past use in directing nutrition and food assistance to high-stunting districts – so that no vulnerable community is left behind.

✅ **Modernize Indicators to Reflect Emerging Realities.** Indonesia's food landscape is undergoing rapid evolution. **The updated FSVA features an expanded and improved set of indicators** that more accurately reflect today's challenges, including regional food reserve, food price volatility, dietary quality, food safety, and the local availability of protein and energy. These indicators align with the latest national priorities, including Presidential Decree 81/2024 on food diversification, as well as international standards such as the Sustainable Development Goals (SDGs) and the Global Food Security Index.

✅ **Decentralized Analysis to Sub-District and Village Levels.** Recognizing the critical need for localized action, FSVA 2025 expands its unit of analysis from districts to sub-districts and villages. This granular mapping enables a more precise understanding of vulnerability hotspots – empowering local governments to tailor programs, allocate Dana Desa (village funds) effectively, and design nutrition-sensitive and climate-resilient food interventions.

✅ **Strengthen Evidence-Based Multisectoral Planning.** With its updated methodology, FSVA becomes a cornerstone for integrated development planning across key areas, including nutrition, poverty reduction, agriculture, health, and rural development. It will inform more responsive policymaking, improve food reserve planning, and support inter-ministerial collaboration aligned with the Mid-term Development Plan 2025–2029 and Indonesia Emas 2045.

✅ **Enable Integration with the Indonesia Food System Dashboard (DSPI).** To support a unified food system intelligence, FSVA 2025 will be integrated into the DSPI platform while remaining accessible through its portal. Mirroring key indicators in DSPI will enhance cross-sectoral analysis, enabling policymakers, researchers, and partners to visualize trends, monitor progress, and coordinate actions more effectively across sectors and regions.

By advancing these objectives, FSVA 2025 will evolve from a static map into a strategic instrument – bridging data and action, national vision and local realities, to ensure that food security becomes a lived reality for everyone in Indonesia.

Box A — Key Innovations in FSVA 2025

FSVA 2025 = Data-Driven Action for Food System Resilience

1. Smarter Indicators, Sharper Insights

- *Pola Pangan Harapan (PPH) – Food Consumption Pattern Score, an indicator of dietary diversity and nutritional quality*
- *Price Variation Coefficient – an indicator of food price volatility used to track economic access to food*
- *Prevalence of Undernourishment (PoU) – aligning with global nutrition metrics*
- *Food Safety Compliance – % of food meeting health standards*
- *Food Reserve - % of regional food reserve meeting ideal amount*

Why it matters: More relevant indicators = more accurate vulnerability diagnosis

2. Localized Down to Villages

- From District ➡ **Subdistrict & village**
- Pinpoint vulnerability pockets with higher accuracy
- Improve targeting for **village fund**, stunting, poverty, and local food programs

Why it matters: Real solutions start with local data

3. Connected to Indonesia's Food Data Ecosystem

- **Integrated with DSPI (Indonesia Food System Dashboard)**
- Interactive visualizations for planners & decision-makers
- Enables cross-sectoral monitoring, analysis, and action

Why it matters: Data is powerful when it's shared and usable

4. Co-Created by Experts and Practitioners

- Academics: IPB (Bogor Agricultural University), STIS (College of Statistical Science), UI (University of Indonesia), and Unila (Lampung University).
- Local Government: OPD Pangan across provinces
- Collaborative Focus Group Discussions at national & regional levels

Why it matters: Science + Local Wisdom = Stronger Ownership & Sustainability

Expected Benefits and Policy Impact

The enhanced FSVA 2025 will be more than a data tool. It will serve as a catalytic platform for smarter governance, more equitable interventions, and enhanced national food resilience. By combining updated indicators, localized analysis, and digital integration, FSVA 2025 is being redesigned to deliver high-impact benefits across levels of government and sectors.

Sharper Targeting for Public Investments. With granular analysis down to the *kecamatan and desa* level, FSVA 2025 will empower policymakers to identify exactly **where** food insecurity exists and **why**. This enables precision targeting for:

- Stunting reduction programs
- Local food reserves
- Social protection and Village Fund
- Nutrition-sensitive agriculture and rural development

✅ **Result:** **Resources are no longer spread thinly, but focused where they can deliver the most significant impact.**

Stronger Planning and Policy Coherence. FSVA will become an integrated decision-making tool – not only for food agencies but also for health, education, social welfare, and regional development. By aligning with the RPJMN 2025–2029[6], Swasembada Pangan roadmap, and Indonesia Emas 2045 vision, FSVA supports:

- Cross-sectoral coordination
- Alignment of national programs with local realities
- Transparent monitoring of food security outcomes

✅ **Result:** **From data to decisions, Indonesia strengthens the integrity and impact of its food system governance.**

Evidence-Based Action. Through integration with the Indonesia Food System Dashboard (DSPI), FSVA data will become more dynamic and interactive, supporting **annual monitoring**, early warning, and program adjustments. While based on annual updates, this integration will enable:

- Timelier response to food price shocks or climate-related risks
- Data-driven policy innovation
- Open access for research, civil society, and private sector use

✅ **Result:** **FSVA evolves into a living system, guiding action with relevance and precision.**

Empowerment of Local Governments. By decentralizing vulnerability data, FSVA enhances the capacity of local leaders to plan and advocate effectively. Villages and districts can use FSVA to:

- Justify budget priorities
- Design location-specific nutrition and food security programs
- Build local food system resilience

✅ **Result:** **Local governments become proactive champions of food security, equipped with credible, actionable evidence.**

A Strategic Investment for National Resilience. Ultimately, FSVA 2025 lays the foundation for a more resilient, inclusive, and sustainable food system. It enables Indonesia to lead by example in showing how data can be democratized and translated into real, lasting change, especially for the most vulnerable.
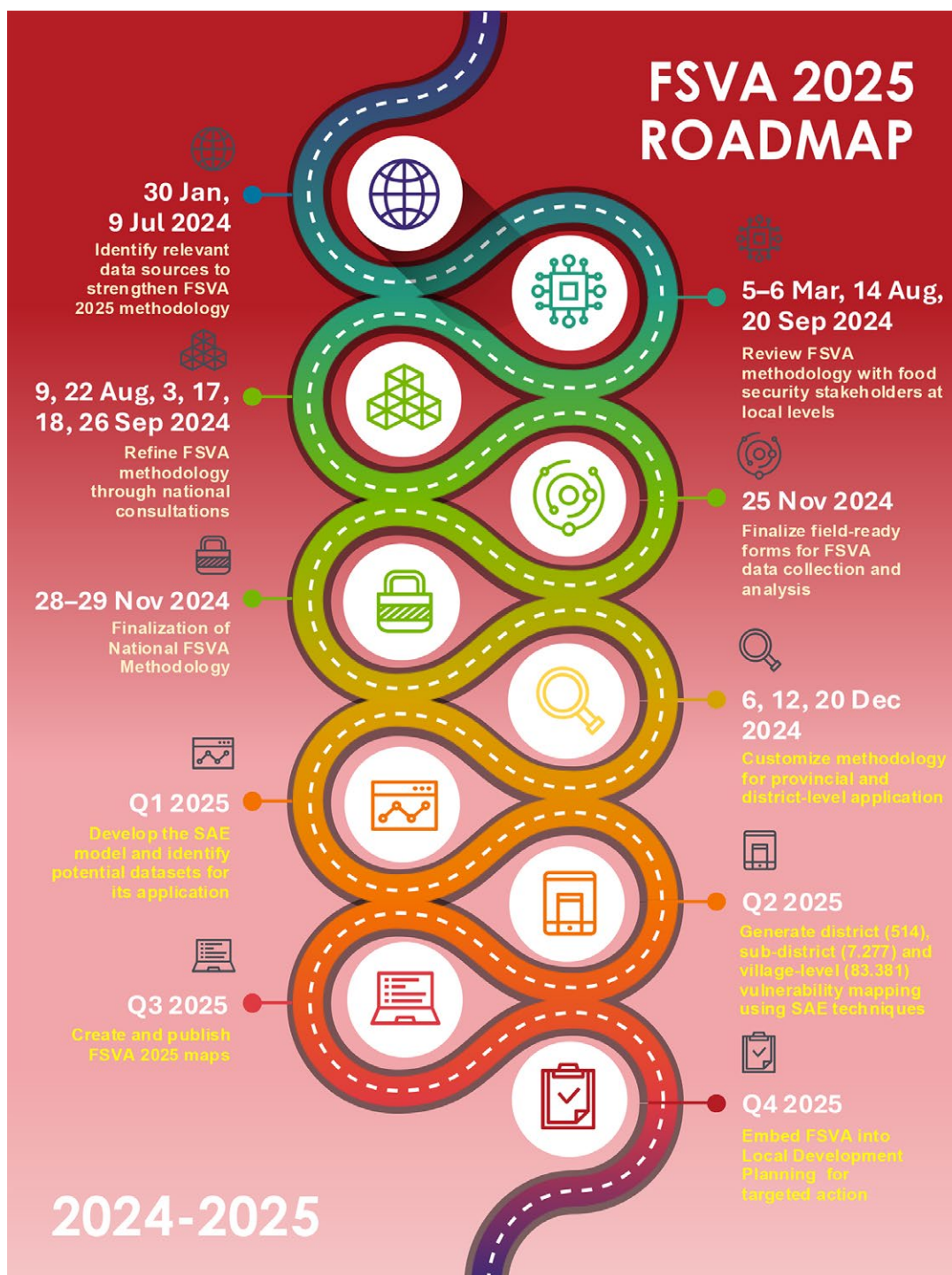
Implementation Roadmap

The FSVA 2025 Roadmap (**Figure 2**) charts Indonesia's journey to modernize food security monitoring through a structured, multi-year process.

The process commenced in early 2024 with the identification of critical data sources and national consultations aimed at refining the methodology. It aims to finalize a nationally endorsed FSVA framework by the end of 2024. In 2025, the focus is shifting to developing and applying Small Area Estimation (SAE) models for village-level vulnerability mapping, followed by the creation and dissemination of digital and printed FSVA maps.

Figure 2: Key milestones on the 2025 revision of the Food Security and Vulnerability Atlas[7]

Policy Recommendations

To fully leverage the potential of FSVA 2025 as a transformative tool for food security governance, a strong policy foundation and institutional commitment are essential. The following recommendations aim to ensure that FSVA 2025 not only produces robust data but also drives meaningful change at both national and local levels.

Institutionalize FSVA as the Primary Reference for Food Security Programming. The updated FSVA should be formally adopted as the core evidence base for food security-related planning, budgeting, and monitoring at all levels of government.

- Mandate the use of FSVA in strategic programs such as stunting reduction, social protection, and CPPD (regional food reserve) development.
- Ensure cross-ministerial alignment through joint regulations between the National Food Agency, Bappenas, the Ministry of Villages, and the Ministry of Home Affairs.

✅ **Impact:** **Strengthens policy coherence and elevates FSVA's role from technical output to policy driver.**

Integrate FSVA into Village-Level Planning and Budgeting Tools. With granular data now available at the *desa* level, FSVA should be embedded in the Dana Desa allocation process and **village development planning systems (RPJMDes)**.

- Update national guidelines to include FSVA-based vulnerability maps as a key input.
- Develop and provide training and simplified tools for village officials to interpret and act on FSVA data.

✅ **Impact:** **Equips local leaders with credible data for more intelligent resource allocation and community-specific solutions.**

Establish a Sustainable FSVA Update Mechanism. To maintain the relevance of FSVA beyond 2025, it is crucial to build a **recurring update mechanism**, supported by national and local budget allocations.

- Institutionalize biennial updates using streamlined SAE-based modeling.
- Mobilize government and donor support to ensure continuous data collection and system maintenance.

✅ **Impact:** **Protects FSVA from obsolescence and enables real-time monitoring and adaptive policymaking.**

Promote Interoperability with National Data Platforms. To maximize FSVA's value, it should be fully integrated with the **Indonesia Food System Dashboard (DSPI)** and other strategic platforms, such as Satu Data Indonesia.

- Ensure API and data-sharing protocols for real-time synchronization.
- Link FSVA insights with early warning systems and food price monitoring dashboards.

✅ **Impact:** **Enables a unified, agile, and data-driven food governance ecosystem.**

Foster Multi-Stakeholder Collaboration and Ownership. Strengthen FSVA's legitimacy and long-term impact by continuing to engage academia, local governments, civil society, and development partners in its use and refinement.

- Establish a national advisory group for FSVA oversight and feedback.
- Facilitate provincial-level learning forums and peer exchanges.

✅ **Impact:** **Ensures FSVA remains grounded, trusted, and locally responsive.**

By adopting these recommendations, Indonesia can position FSVA 2025 as a cornerstone of resilient food system governance, where data drives impact, and every level of government is empowered to act on food insecurity with confidence and precision.

Conclusion

The ongoing updating and transformation of Indonesia's Food Security and Vulnerability Atlas in 2025 marks a pivotal step toward building a more inclusive, resilient, and data-driven food system. At a time when food insecurity is becoming increasingly complex, driven by climate shocks, price volatility, and persistent inequality, Indonesia is choosing to lead with innovation, evidence, and collective resolve.

The FSVA 2025 can no longer remain a static map; it must become a strategic instrument. By incorporating smarter indicators, disaggregating data down to the village level, and integrating it with digital governance platforms like DSPI, FSVA will provide the clarity and precision needed to target the right interventions in the right places at the right time.

This evolution also reflects a broader shift in how Indonesia governs its food systems: from top-down planning to inclusive, locally empowered action. With FSVA in hand, village leaders, district planners, and national policymakers can share a common language – a data-driven foundation for decisions that affect the lives and futures of millions.

The opportunity is great, but it must be matched with commitment. To unlock the full potential of FSVA, we must institutionalize its use, ensure its seamless integration with planning and budgeting tools, and invest in its long-term sustainability. By doing so, Indonesia will not only meet its national goals, such as reducing stunting, strengthening food reserves, and achieving Swasembada Pangan, but also set a global example for localizing food system resilience.

As we move forward, FSVA 2025 becomes more than a policy tool. It becomes a symbol of what is possible when data, leadership, and collaboration come together for the public good.

"Together, let us turn evidence into action, vulnerability into opportunity, and food security into a shared national reality – one village, one district, one map at a time."

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