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DISCUSSION PAPER SERIES 2026-05

Policy Coherence for Food and Nutrition Security

Reviewing Indicators

Aileen R. de Juras
Jennifer Marie S. Amparo
Alma Katrina Blesilda M. Gonzales
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Food Security Program

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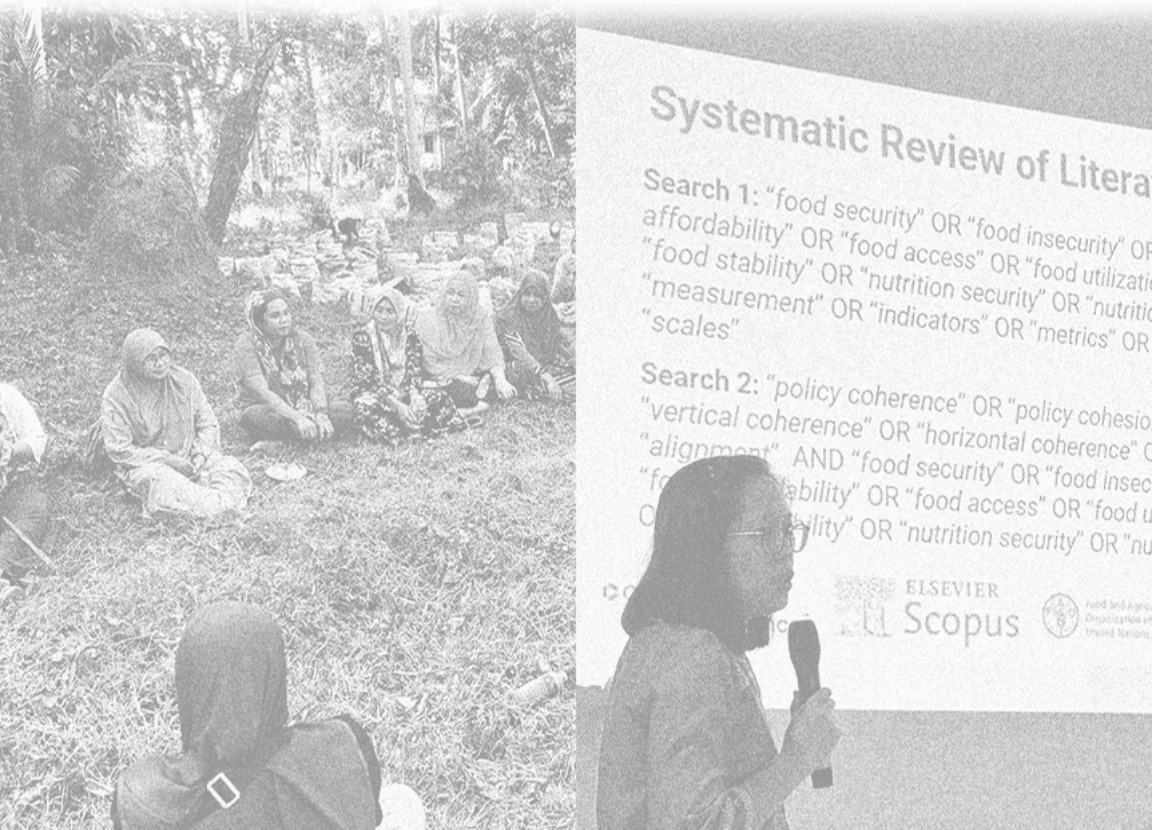

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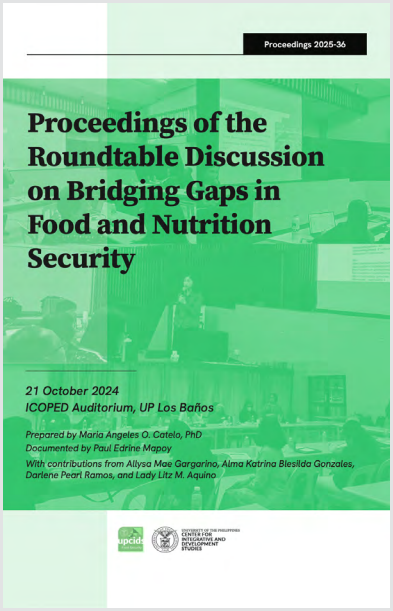

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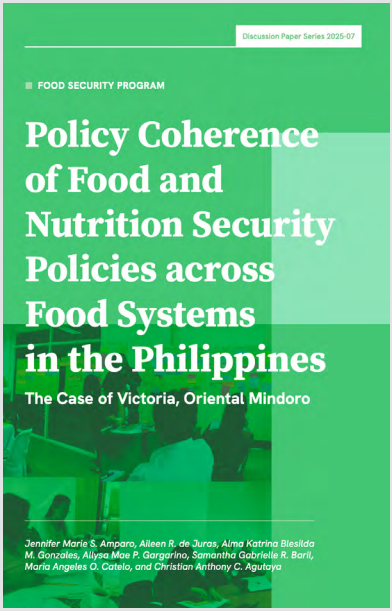

MONOGRAPH

Policy Coherence of Food and Nutrition Security Policies across Food Systems in the Philippines: The Case of Victoria, Oriental Mindoro

Policy Coherence for Food and Nutrition Security[1]

Reviewing Indicators

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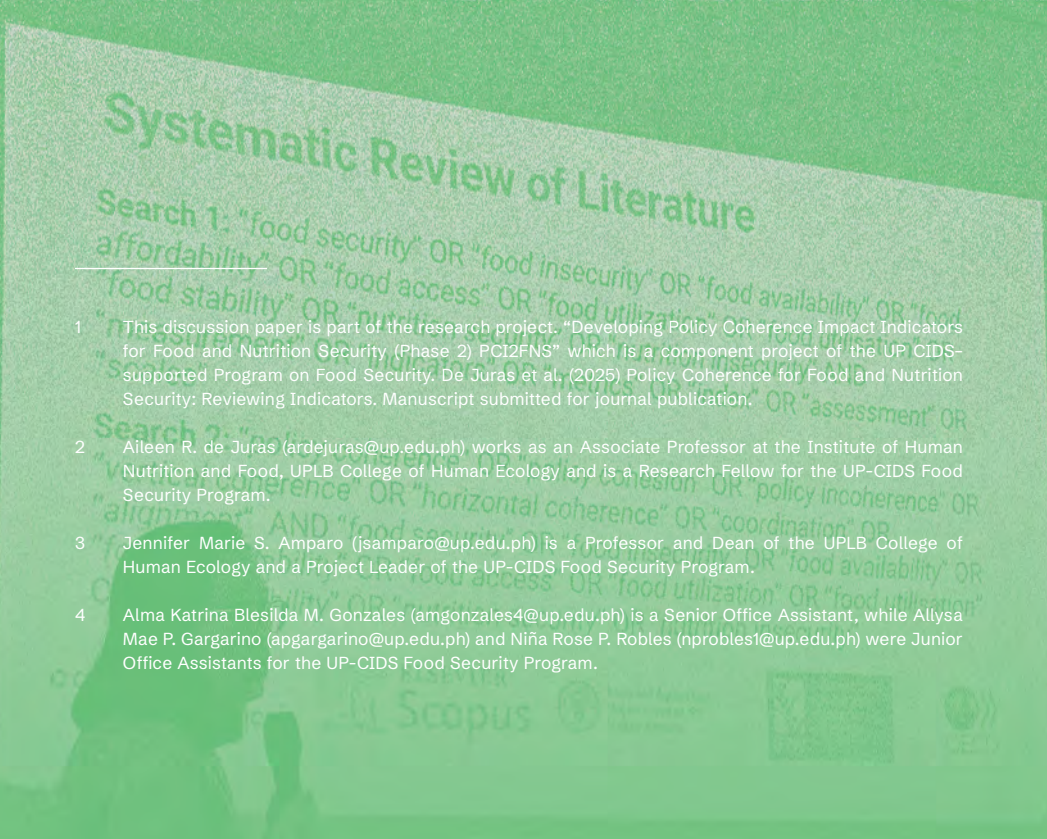

1 This discussion paper is part of the research project. "Developing Policy Coherence Impact Indicators for Food and Nutrition Security (Phase 2) PCI2FNS" which is a component project of the UP CIDS-supported Program on Food Security. De Juras et al. (2025) Policy Coherence for Food and Nutrition Security: Reviewing Indicators. Manuscript submitted for journal publication.

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Abstract

This study continues to unpack how policy coherence facilitates progress toward achieving food and nutrition security (FNS). The review aimed to identify policy coherence indicators for FNS and provide inputs to the study "Developing Policy Coherence Impact Indicators for Food and Nutrition Security (Phase 2)–PCI2FNS" under the University of the Philippines Center for Integrative Studies – Food Security Program. Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses approach, the research examined peer-reviewed articles from the Web of Science and Scopus databases, as well as reports from the Food and Agriculture Organization, the Organisation for Economic Co-operation and Development, and the International Food Policy Research Institute. Findings showed that despite the recognized importance of policy coherence, there remains a paucity of studies systematically addressing its measurement and implementation. Factors and mechanisms that enable coherence identified in the literature review were aligned with the indicators from the 2024 UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1 Domains and the 2025 Global Alliance for Improved Nutrition Diagnosing Policy Coherence for Food Systems Tool. Furthermore, the indicators represent the dimensions of: (1) Cross-linkages and Monitoring, Evaluation, and Accountability; (2) Commitment and Continuity; (3) Coordination and Convergence, and (4) Consultation and Community Engagement. These dimensions of policy coherence serve as foundational elements for developing indicators that will inform the creation of a comprehensive framework to assess and enhance food and nutrition security.

Introduction

Food and nutrition security (FNS) remains a critical global challenge that requires integrated and coherent policy actions across different stakeholders. Achieving sustainable improvements in FNS depends not only on the presence of sound sectoral policies but also on the extent to which these policies are harmonized and mutually reinforced. In this context, policy coherence has emerged as a central concept in ensuring interventions to effectively address the multifaceted determinants of food and nutrition outcomes.

The development of policy coherence in nutrition is anchored on the recognition of malnutrition as a wicked problem, which calls for the alignment of multiple policy domains. Several studies have illustrated how policy incoherence has hampered progress in achieving global food and nutrition security. Popkin et al. (2012) argued that dietary shifts, often driven by urbanization and food system changes, contributed to the increasing prevalence of obesity and noncommunicable disease. This study critiqued that government priorities for economic growth often undermine food systems policies with nutrition outcomes (Popkin et al. 2012). Similarly, Margulis (2013) found that policy frameworks commonly prioritize economic growth over improving food and nutrition security. These insights put forward the critical need for coherent policies that bridge sectors and align national priorities with health and nutrition objectives.

Despite the growing recognition of its importance, the assessment and operationalization of policy coherence remain complex. Numerous international and national initiatives promoting food security and nutrition are constrained by fragmented governance structures, overlapping mandates, and limited coordination mechanisms. Although institutions such as the Organisation for Economic Co-operation and Development (OECD) and the United Nations Environment Programme (UNEP) have contributed to the understanding of policy coherence, there remains scarce empirical evidence for its measurement.

This review addresses this gap by identifying and mapping policy coherence indicators for food and nutrition security. The evidence synthesized from this review will provide substantial input in shaping the framework for the study "Developing Policy Coherence Impact Indicators for Food and Nutrition Security (Phase 2) PCI2FNS", as part of the authors' work under the University of the Philippines Center for Integrative Studies–Food

Security Program. This study draws on the 2024 UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1 Domains and 2025 Global Alliance for Improved Nutrition (GAIN) and AKADEMIYA2063 Food Systems Policy Coherence Diagnostic Tool. A case study to describe how policy coherence is operationalized at a local level is also presented. Ultimately, this research contributes to advancing both the conceptual understanding and practical assessment of policy coherence through a food and nutrition security lens.

Literature Searching and Screening Processes

The authors conducted a systematic review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al. 2021). Structured searches in the Web of Science and Scopus electronic databases were performed. Two categories of search strings were developed for each database. Category A focused on the measurement of food security, while Category B centered on the measurement of policy coherence. Moreover, targeted web searches in the Food and Agriculture Organization (FAO), the International Food Policy Research Institute (IFPRI), and the Organisation for Economic Co-operation and Development (OECD) websites were carried out using the terms "policy coherence" and "food and nutrition security". These terms were pilot tested to ensure that the research studies identified helped us in answering our research question: "What are the existing indicators of policy coherence for food and nutrition security in the literature?" The protocol was registered with the PROSPERO International Prospective Register of Systematic Reviews (CRD1155256).

The inclusion criteria in the database search employed were: (a) Search field: topic (Web of Science); title-abstract-keywords (Scopus); (b) Time frame: 1 January 2012 to 1 April 2025; (c) Language: English; (d) Area of research: Nutrition, Agriculture; and (e) Study design: review articles. For the reports, the inclusion criteria applied were the (a) type of publication (i.e., article, case study, policy paper, country brief, book); (b) year of publication (i.e., 1 January 2012 to 6 May 2025); and (c) written in the English language. We limited our search to publications from 2012 onwards because it was during this period that policy coherence gained growing significance in the food and nutrition narratives. Records initially identified were assessed for eligibility by title and abstract, then by full text screening. The full texts of all articles included in

the analysis were manually evaluated. A data extraction template, consisting of information on the study title, authors, publication year, food and nutrition security, and policy coherence measures, and key findings, was developed in Microsoft Excel for Microsoft 365. This was then reviewed by the authors before the full extraction of information took place.

Measuring Policy Coherence: Food and Nutrition Security Perspective

Characteristics of Included Studies

One thousand four hundred seventeen (1,417) records were initially identified in the electronic database searches. From these, 137 were excluded as duplicates, generating 1,280 articles eligible for title and abstract screening. The top reasons for not including a research article were that the study focused on: agriculture and sustainability strategies (n = 478), food science and technology (n = 263), and clinical research (n = 260). Subsequently, a total of four studies met the inclusion criteria and were subjected to qualitative analysis. In terms of website searches, 66 reports were obtained. After extensive evaluation, a total of six reports were considered relevant and within the scope of the study.

The articles and reports were published between 2012 and 2023. All of the research articles were published in international peer-reviewed journals that emphasize sustainability and the global challenges of food security, agriculture, and the environment. Each journal highlights the policy and practice relevance of scientific evidence and adopts a systems-based approach.

Reports included in the final analysis were retrieved from the OECD (n = 3), FAO (n = 2), and IFRI (n = 1) websites. The OECD website is a knowledge hub of reports and policies that support international cooperation. It serves as a key reference for researchers, governments, and policymakers to develop evidence-based standards for social, economic, and environmental challenges (https://www.oecd.org/). On the other hand, the FAO, a United Nations specialized agency leading efforts to eradicate hunger, has a digital repository with policy resources on food, agriculture, forestry, fisheries, and rural development. It hosts the FAOSTAT databases, State of Food Security and Nutrition in the World (SOFI) flagship reports, and country profiles for the improvement of food security for all (https://www.fao.org/). The IFPRI website is a platform sharing research-based solutions in the Consultative Group on International

Agricultural Research (CGIAR) impact areas, including nutrition, health, and food security. It features policies and programs contributing to sustainable, resilient, and equitable food systems (https://www.ifpri.org/). These websites are global knowledge platforms for open-access databases and policy resources. All three collectively contribute to food security and policy coherence by linking research across sectors.

Understanding Policy Coherence for Food and Nutrition

The measurement of policy coherence is notably complex in the area of food security and nutrition because it remains to be understudied. To provide a theoretical foundation for identifying indicators in the selected articles and reports, we applied the definition of food policy coherence by Parson and Hawkes (2019) as "the alignment of policies that affect the food system to achieve health, environmental, social and economic goals, to ensure that policies designed to improve one food system outcome do not undermine others." This section describes the different measures and indicators identified in the studies on policy coherence for food and nutrition security. Table 1 summarizes the possible measures and indicators of policy coherence for food and nutrition security. Thematic analysis was utilized to group the different measures and indicators indicated in the reviewed articles and reports. The themes were identified using an inductive approach based on recurring words of the indicators identified in the selected literature (Proudfoot 2023).

Table 1. Themes, Identified Measures, and Indicators of Policy Coherence for Food and Nutrition Security Based on Studies and Reports from the Databases, IFPRI, FAO, and OECD Websites (see annex A and annex B for details)

Theme	Measures and Indicators	Sources
1. Coordination, Governance, and Institutional Coherence	■ Coordination with different sectors ■ Partnerships with various organizations	Adhikari et al. (2023)
	■ Creation of an interministerial coordinating body	Ulimwengu et al. (2024)
	■ Implementation of coherent cross-sectoral, national, and regional strategies	FAO (2015)

Theme	Measures and Indicators	Sources
	■ Translation of political commitment to concrete actions	FAO (2017)
	■ Warranting coherence of actions for food security at and between different levels of government (vertical coherence)	OECD (2016)
	■ Fostering multilevel governance structures that improve horizontal and vertical alignments	OECD (2017)
2. Political Commitment and High-Level Support	■ Commitment to nutrition improvement ■ High-level policy support	Adhikari et al. (2023)
	■ Inclusive governance, investments, and political will	Hlahla et al. (2023)
	■ Political commitment ■ Cooperation and commitment of member countries	Nhamo et al. (2018)
3. Institutional Capacity and Human Capital Development	■ Institutional capacity development	Adhikari et al. (2023)
	■ Management of the intersection of global and local priorities through a territorial approach	Caron et al. (2018)
	■ Capacity building ■ Establishment of communities of practice	Hlahla et al. (2023)
	■ Policy and governance strengthening	Nhamo et al. (2018)
	■ Institutional capacity-building programs	Ulimwengu et al. (2024)
4. Financing and Resource Mobilization	■ Financial support	Ulimwengu et al. (2024)
	■ Mobilization of innovative financing	FAO (2017)
	■ Considering diverse sources of finance to improve food security and ensure complementarities	OECD (2016)

Theme	Measures and Indicators	Sources
5. Evidence-Based Policymaking and Monitoring	■ Monitoring and evaluation system	Adhikari et al. (2023)
	■ Improvement in infrastructure and data-sharing mechanisms ■ Monitoring and evaluation systems	Ulimwengu et al. (2024)
	■ Development of policies from robust and reliable science-based evidences	FAO (2015)
	■ Integrated policies and accountability mechanisms	FAO (2017)
	■ Enablers	OECD (2015)
	■ Taking into account contextual factors and creating enabling conditions for ensuring global food security	OECD (2016)
	■ Expanding data and indicator availability at local and regional levels to inform evidence-based policies	OECD (2017)
6. Policy Impacts, Trade-offs, and Externalities	■ Assessment of food systems' contribution to the SDGs ■ Achievement of impact at scale through local-level action	Caron et al. (2018)
	■ Cost-benefit analysis of policies	Hlahla et al. (2023)
	■ Promotion of public awareness ■ Recognition of the role of broadened and natural boundaries in socioeconomic security ■ Provision of scientific evidence and tools to identify trade-offs and support resource allocation strategies	Nhamo et al. (2018)
	■ Integration of climate responses with pro-poor development strategies	FAO (2015)
	■ Potential trade-offs ■ Effects	OECD (2015)

Theme	Measures and Indicators	Sources
	■ Assessing how domestic policies influence the four key dimensions of food security ■ Determining policy interlinkages of relevance to food security (horizontal coherence) ■ Reformulation or removal of policies that create negative spillover effects	OECD (2016)
	■ Broadening strategies and interventions outside agriculture ■ Harmonizing social policies with economic growth policies	OECD (2017)

Based on the 10 articles and reports reviewed, six themes emerged (see table 1 above). The first theme is "coordination, governance, and institutional coherence". Adhikari et al. (2023) emphasized the role of different sectors and organizations in policy coherence. Their study also found that government partnerships with private, international, and nongovernment organizations were critical to achieve food and nutrition security. In order to manage these coordination mechanisms, Ulimwengu et al. (2024) proposed the creation of an interministerial coordinating body. Further, both FAO (2015, 2017) and OECD (2016, 2017) put forward that policy coherence be manifested in vertical coherence and action coherence. Vertical coherence involves different levels of government working together to pursue food and nutrition security goals. On the other hand, FAO (2017) emphasized that political commitment should be translated into concrete actions.

The second theme is "political commitment and high-level support". Political commitment to nutrition improvement was identified in the studies of Adhikari et al. (2023), Hlahla et al. (2023), and Nhamo et al. (2018). This was evident through high-level policy support (Adhikari et al. 2023), investments (Hlahla et al. 2023), and commitment of member countries (Nhamo et al. 2018).

The third theme focuses on "institutional capacity and human capital development". The reviewed articles and reports gave prominence to institutional capacity development (Adhikari et al. 2023; Hlahla et al. 2023; Nhamo et al. 2018; OECD 2017). Hlahla et al. (203) further proposed the

establishment of communities of practice to manage the complex nature of food and nutrition security. In addition, Caron et al. (2023) encouraged the territorial approach in managing the intersection of global and local initiatives for food and nutrition security. A territorial approach pertains to place-based strategies and values diversity in context and capacities.

The fourth theme is "financing and resource mobilization". Financial support to pursue policy coherence for food and nutrition security is valuable (Ulimwengu et al., 2024). Apart from diverse sources of financing, the OECD (2016) report recommended that there should be complementarities across these finances. Whereas the FAO (2017) report argued that traditional financing mechanisms may not be sufficient since mainstream financing thrives on siloed funds. Thus, there is a need for innovative financing schemes to ensure policy and fund coherence.

The fifth theme is "evidence-based policy making and monitoring". Several authors have advocated for the institution of a monitoring and evaluation system that supports policy coherence (Adhikari et al. 2023; Ulimwengu et al. 2024). The monitoring and evaluation (M&E) system should take into account local contexts, enabling conditions, and data availability for food and nutrition security (OECD 2015, 2016, 2017). Additionally, given the engagement of multiple stakeholders and sectors, data-sharing mechanisms and infrastructure should be improved (Ulimwengu et al. 2024). The FAO (2015, 2017) reports also focused on the formulation of policies from science-based evidence and the integration of accountability mechanisms in policy coherence to ensure effective implementation.

The last theme is "policy impacts, trade-offs, and externalities". Based on the review, assessment of impacts is critical in policy coherence. Carron et al. (2018) recommended that an assessment of the effect of policy coherence on Sustainable Development Goals (SDGs) is needed. This was likewise discussed in the FAO and OECD reports, which highlight the frameworks for Policy Coherence for Sustainable Development, and the impacts of policy coherence on six SDGs, specifically SDG 1, 2, 3, 5, 9, and 14 (FAO 2015; OECD, 2015, 2016, 2017). To add, the OECD 2015 report argues that policy analysis on the trade-offs and effects on food and nutrition security should also be conducted. The OECD 2016 report described why assessing policy coherence at the horizontal scale or across the key dimensions of food security (horizontal coherence) is valuable. Hlahha et al. (2023) suggested the implementation of a cost-benefit analysis to determine the effects of policies on food and

nutrition security. Nhamo et al. (2018) also expounded that these analyses should provide evidence to leverage policies and prioritize resource allocation for policy coherence. In addition, the study of Nhamo et al. (2018) examined the role of natural resources and environment in socio-economic security, which should be considered in food and nutrition security policy coherence assessments.

Mapping Indicators of Policy Coherence for Food and Nutrition Security

The indicators identified in this study were subjected to deeper analysis using two organizing frameworks, namely, (1) the UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1 Domains, and (2) the Food Systems Policy Coherence Diagnostic Tool by Global Alliance for Improved Nutrition and AKADEMIYA2063 Module 1: Structures and Mechanisms. These are recent frameworks that focus on assessing policy coherence for sustainability and food and nutrition security.

The UNEP's Policy Coherence for Sustainable Development Handbook contains eight dimensions that "provide a structured framework for assessing the extent to which countries have mechanisms to promote policy coherence, a core requirement of SDG 14.14" (UNEP 2024). The tool could be accessed through this link: https://drive.google.com/file/d/17yi37fHr4xM9B0buhYFEKriqfUWSpwvy/view, and the dimensions are described in table 2.

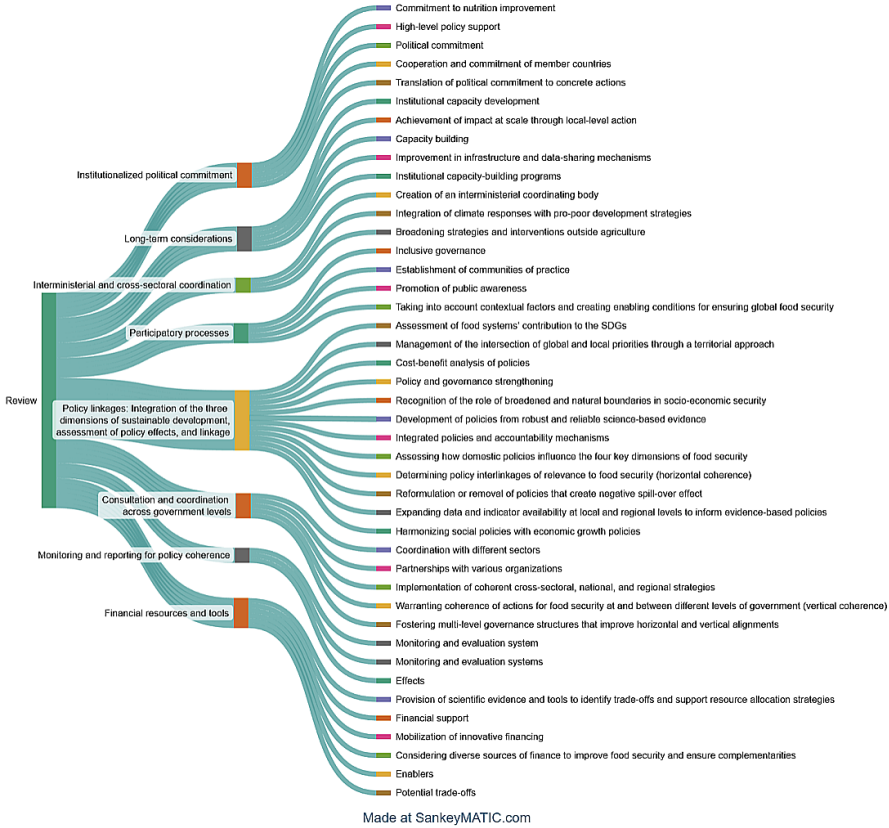
Table 2. UNEP's Policy Coherence for Sustainable Development Indicator Framework (UNEP 2024, 3)

Dimension	Description
1. Institutionalized Political Commitment	High-level commitment towards policy coherence for sustainability institutionalized
2. Long-term Considerations	Long-term considerations are integrated into decision-making, policy development, and planning
3. Interministerial and Cross-sectoral Coordination	Institutional mechanisms are in place, and they periodically bring together relevant ministries and governmental entities to enhance coherence across sustainable development-related policies including sectoral policies

Dimension	Description
4. Participatory Processes	Mechanisms are in place to ensure that laws, policies, plans, programs, and major development projects at different levels of government, and including at the overarching/general, sectoral, and local levels, are developed through participatory processes that involve relevant stakeholders
5. Policy Linkages: Integration of the Three Dimensions of Sustainable Development, Assessment of Policy Effects, and Linkage	Mechanisms are in place that allow relevant public institutions to systematically assess the policy effects and cross-sectoral linkages throughout the policy and planning processes
6. Consultation and Coordination across Government Levels	Mechanisms are in place for aligning priorities, policies, and plans adopted at various levels of government
7. Monitoring and Reporting for Policy Coherence	Mechanisms are in place to systematically monitor and evaluate the effects of policies on the various dimensions of sustainable development as well as cross-sectoral impacts, and to report and inform adaptive action
8. Financial Resources and Tools	Mechanisms are in place to promote the alignment of private and public finance to policy coherence objectives and to track related expenditures

Using the abovementioned dimensions that enable policy coherence, all the indicators identified in the systematic literature review were classified (see figure 1; refer to annex C for a detailed list). Most (n = 12, 27.91%) of the identified indicators from the review fall under the dimension "Policy Linkages", which is the integration of the three dimensions of sustainable development, policy effects assessment, and linkage. Whereas, the dimensions on "Interministerial and Cross-sectoral Coordination" and "Monitoring and Reporting for Policy Coherence" had the fewest indicators (each with n = 3, 6.98%) in the literature.

Figure 1. Policy Coherence for Food and Nutrition Security Indicators and the UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1 Domains



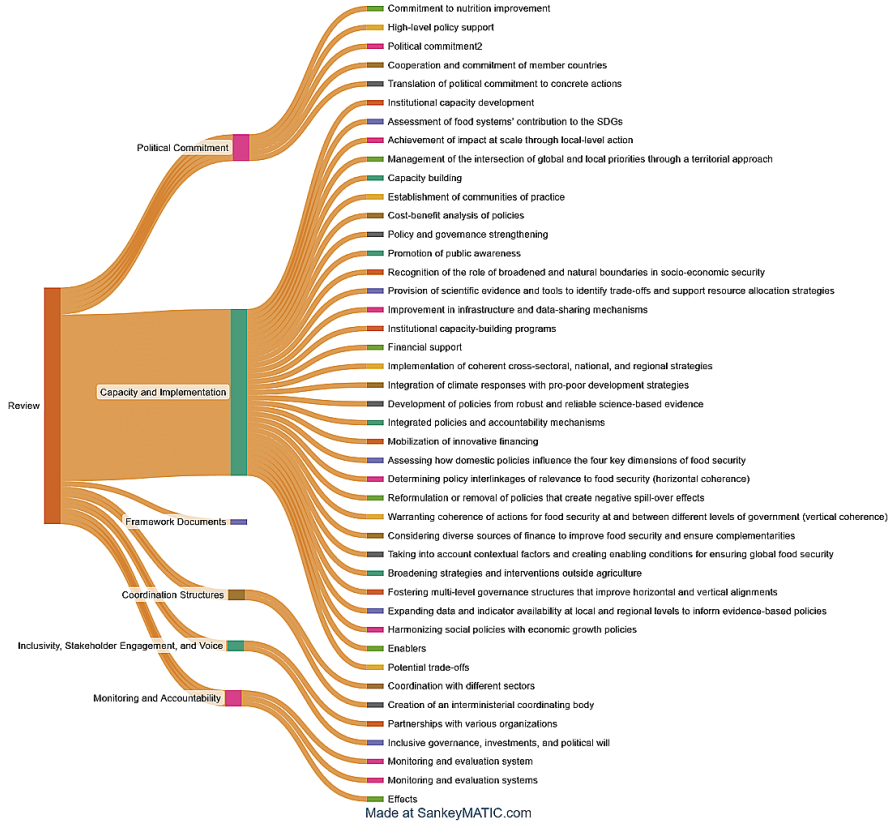
On the other hand, the Food Systems Policy Coherence Diagnostic Tool was designed for low- and middle-income countries "to identify areas of coherence and non-coherence among food system policies and provide actionable recommendations" (GAIN and AKADEMIYA2063 2025). The first module assesses the presence of mechanisms and structures that facilitate the creation and maintenance of policy coherence within the food systems. This diagnostic tool has a total of 30 questions that cover several topics under the six structures and mechanisms (see table 3). The said toolkit is publicly available through this link: https://www.gainhealth.org/sites/default/files/fspc-diagnostic-tool-final-modules.pdf.

Table 3. Food Systems Policy Coherence Diagnostic Tool Dimensions Based on GAIN

Structure and Mechanism	Number of Self-diagnostic questions	Topics
1. Framework Documents	6	Sectors; vision; objectives and targets; measures; stakeholders
2. Political Commitment	3	High-level commitment; commitment beyond the electoral cycle or term
3. Capacity and Implementation	5	Formal adoption; action plan; integrated in national policies; plans and budget; capacity building
4. Coordination Structures	5	Lead government agency; national level platform for general and specific food systems; advocates/champions; engagement of different levels of government
5. Inclusivity, Stakeholder Engagement, and Voice	3	Summit or dialogues; consultation with experts and nonexperts
6. Monitoring and Accountability	8	Key performance indicators; milestones; mechanisms; responsibilities; monitoring; reviews; capacity building

After classification, most of the indicators identified in our literature review were categorized under the "Capacity Implementation" (n = 31, 72.09%). This was followed by "Political Commitment" (n = 5, 11.63%), "Monitoring and Accountability" (n = 3, 6.98%), "Coordination Structures" (n = 2, 4.65%), and "Inclusivity, Stakeholder Engagement, and Voice" (n = 2, 4.65%). Remarkably, there were no indicators from the literature found related to the dimension of "Framework Documents" (see figure 2; refer to annex D for details).

Figure 2. Policy Coherence for Food and Nutrition Security Indicators and the Food Systems Policy Coherence Diagnostic Tool Dimensions based on GAIN



The use of the UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1 Domains and Food Systems Policy Coherence Diagnostic Tool provided comparability across the diverse measures and factors of policy integration in food and nutrition security. In the UNEP's framework, "Policy Linkages" was the most prominent dimension, suggesting strong emphasis on aligning economic, social, and environmental objectives and strengthening cross-sectoral integration as a key measure in promoting policy coherence. Conversely, "Interministerial and Cross-sectoral Coordination" and "Monitoring and Reporting for Policy Coherence" were the least represented dimensions, signifying that persistent gaps remain in indicators for policy coherence, coordinating structure, and tracking. The latter tool revealed that a considerable number of measurements are concentrated on the "Capacity Implementation," underscoring the importance of evidence in transforming

commitments into tangible actions. On the contrary, there is a noticeable absence of indicators linked with the "Framework Documents," indicating the lack of overarching policy frameworks or plans that articulate a common vision for policy coherence for food and nutrition security.

Table 4 below illustrates the categorization that the authors did to further consolidate the indicators based on the two policy coherence organizing frameworks (refer to annexes C and D for the list of indicators categorized by the authors based on the two organizing frameworks used for this study). We have identified four consolidated themes, namely: Cross-linkages: Monitoring, Evaluation and Accountability (n = 49), Commitment and Continuity (n = 21), Coordination and Convergence (n = 10), and Consultation and Community Engagement (n = 6). An inductive thematic analysis was utilized for the identification and consolidation of themes from the two organizing frameworks used in this study. Below are the definitions of the consolidated themes to help organize the specific indicator groups from the organizing frameworks.

- Commitment and Continuity comprised the indicator themes that emphasized formal political commitment through policies, framework documents, and agreements for policy coherence. The formal documents also include plans, budgets, and other resources required to implement the policy coherence initiatives. Continuity highlights that the commitment goes beyond "the current electoral cycle" (UNEP 2024).

- Coordination and Convergence referred to mechanisms and structures for interministerial, interagency, or intersectoral coordination. Coordination involves both horizontal (across departments and sectors) and vertical (across government levels) alignments. Convergence means different agencies, sectors, and stakeholders working together and complementing their resources to develop a more holistic and integrated initiative in addressing a social-ecological issue like food and nutrition insecurity.

- Cross-linkages: Monitoring, Evaluation, and Accountability pertained to measures that focus on organizational learning through monitoring, evaluation, and assessments to guide coordinated actions for policy coherence. This theme also consists of indicators on capacity building to prepare institutions and organizations for coherent actions for FNS.

- Consultation and Community Engagement composed of indicators on participatory processes and mechanisms to engage stakeholders in policy coherence for FNS.

Overall, the abovementioned consolidated themes are critical ingredients in the effective implementation of policy coherence for food and nutrition security.

Table 4. Number of Indicators in the Reviewed Articles and Reports Categorized Based on the Consolidated Themes from the UNEP and GAIN Policy Coherence Organizing Frameworks

Consolidated Themes	UNEP	GAIN
Commitment and Continuity (n = 21)	(1) Institutionalized Political Commitment ***(5)*** (2) Long-term Considerations ***(5)*** (8) Financial Resources and Tools ***(6)***	(1) Framework Documents ***(0)*** (2) Political Commitment ***(5)***
Coordination and Convergence (n = 10)	(3) Interministerial and Cross Sectoral Coordination ***(3)*** (6) Consultation and Coordination across Government Levels for Horizontal Coherence ***(5)***	(4) Coordination Structures ***(2)***
Cross-linkages: Monitoring, Evaluation, and Accountability (n = 49)	(5) Policy Linkages: Integration of the Three Dimensions of Sustainable Development, Assessment of Policy Effects, and Linkage ***(12)*** (7) Monitoring and Reporting for Policy Coherence ***(3)***	(3) Capacity and Implementation ***(31)*** (6) Monitoring and Accountability ***(3)***
Consultation and Community Engagement (n = 6)	(4) Participatory Processes ***(4)***	(5) Inclusivity, Stakeholder Support and Voice ***(2)***

Note: the numbers in the consolidated themes are the combined number of indicators from the UNEP and GAIN frameworks; the numbers that are italicized and in bold fonts are the number of indicators identified in the systematic review of literature (see annexes C and D for details)

A Case Study on Policy Coherence to Action Coherence: The BARMM Experience

This section presents the key findings during the fieldwork of the project team in Matanog, Maguindanao del Norte. Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) was chosen as the case study site because of its landmark Food Security and Nutrition Plan 2023–2028. They were the first region to develop an integrated FSN Plan. The case study aimed to identify how policy coherence is operationalized at the local level. The methods employed were: a desk review of existing FSN Plan and Roadmap documents of BARMM; focus group discussion (FGD) attended by representatives of the interministerial committee, including civil society representatives; and field visits, including interviews with communities in Matanog, Maguindanao del Norte.

The following discussion is divided into two main sections. First, an operationalization of policy coherence for FNS of BARMM using the consolidated 4Cs themes described above. Second is the narrative of the Home-Grown School Feeding (HGSF) Program for School Year 2025–2026 based on the FSN Plan.

Operationalizing the 4Cs of Policy Coherence in BARMM

Context: Winning the War against Malnutrition

The Bangsamoro Autonomous Region in Muslim Mindanao is an autonomous region in the southern Philippines, governed by a parliamentary system with its own ministries and planning institutions (https://bangsamoro.gov.ph/). In 2023, it was behind Region IX as the region with the highest poverty level. Nevertheless, its poverty incidence of 23.5% is still higher compared to the national average of 15.5% (PSA 2024). BARMM has yet to win the battle against malnutrition. Based on the 2023 National Nutrition Survey, 34.3% of Bangsamoro children under five are stunted. BARMM continues to rank among regions with the highest prevalence of household food insecurity, reaching 84.1% in 2020 compared to other regions (WFP 2022). As Yusoph (2025, 3) argued, "The Bangsamoro has succeeded in stopping the armed conflict, but it now must win a quieter, and arguably harder battle: the fight against systemic poverty and institutional fragility."

Commitment and Continuity

In the two organizing policy coherence frameworks for food and nutrition security used in our study (UNEP and GAIN), the first critical indicator identified is political commitment and sustainability (i.e., going beyond a current electoral cycle). BARMM is the first in the country to develop a comprehensive and integrated Bangsamoro Food Security and Nutrition Plan (BFSNP) 2023–2028 and the complementary Food Security and Nutrition Roadmap. This was developed as part of the collaboration between BARMM, specifically its Ministry of Agriculture, Fishery and Agrarian Reform (MAFAR), and Bangsamoro Planning and Development Authority (BPDA), together with the United Nations World Food Programme–Philippines. Attention to food security and nutrition is already embedded in the "1st Bangsamoro Development Plan (BDP) 2020–2022 and aligned with the 12-Point Priority Agenda of the Bangsamoro Government, along with the four key areas being promoted by the Chief Minister, such as social services, health, education, and strategic infrastructure," according to Engr. Mohajirin T. Ali, Director General, BPDA (BARMM 2020, 6).

The BFSNP serves as BARMM's blueprint to address malnutrition and food insecurity. It includes an analysis of eight dimensions of emerging issues and gaps on FNS with corresponding action points. The FNS issues and gaps focused on livelihoods; vulnerable sectors and communities; need for information, research, and innovation; market and value chains; policies and institutions for food security; nutrition and dietary intake; natural resources and climate change; gender and women empowerment. The documents also include a clear vision, mission, goals, and outcomes, as well as key result areas. Both documents have laid out the timeline for food and nutrition transition and transformation that goes beyond the current electoral cycle (BARMM 2020):

- 2020–2022 focused on institutions and policies for FNS,
- 2025 focused on increased investments and partnerships for FNS programs, and
- 2030 and beyond envisions the establishment of a sustainable food system.

Coordination and Convergence

BARMM created the Bangsamoro Food Security Task Force to coordinate food security and nutrition initiatives during the transition period of the region.

Last November 2025, the Bangsamoro Parliament approved the establishment of the Bangsamoro Nutrition Commission, a regional body that will lead policymaking, coordination, and monitoring of food security and nutrition programs across the Bangsamoro Autonomous Region under Parliament Bill No. 55 or the Bangsamoro Nutrition Commission Act of 2025. Under the law, the Commission will be attached to the Office of the Chief Minister and will serve as the central policymaking and coordinating body on nutrition, health-related nutrition programs, and regional food security. It will also lead to the formulation of the Bangsamoro Plan of Action for Nutrition and the Bangsamoro Food Security and Nutrition Plan (Bangsamoro Parliament 2025). The creation of its own BNC manifests the region's commitment to stronger coordination and convergence efforts to promote food and nutrition security. The policy, including the FNS plans and roadmaps, lays out the coordinating roles of the different ministries and agencies under BARMM.

Cross-linkages: Monitoring, Evaluation, and Accountability

During the FGD, the representatives confirmed that the interministerial agencies, together with civil society representatives like international development organizations (WFP, among others), meet quarterly. These meetings were led by the MAFAR to discuss updates, progress, and plans. Since the FSN Plan, roadmap, and the BNC were recently adopted and created, the implementation mechanisms for policy coherence, particularly for cross-linkages, still need to be refined and strengthened. Some of the suggestions raised by the FGD participants included the conduct of impact assessment and cost-benefit analysis; the value of learning and accountability; and funding initiatives. The participants also suggested learning activities such as South-to-South learning exchanges, regional gatherings, and summits.

Consultation and Community Engagement

Similar to cross-linkages, this area is still being refined and needs to be unpacked in terms of operationalization. Although in the FSN plan and roadmap documents, the engagement of different sectors, integrating marginalized sectors, and their emerging issues and gaps are included, the specific mechanisms for community engagement are not yet fully laid out. For instance, there are a number of international development partners, such as the UN and WFP, who have been vital in the development of the policy coherence initiatives of BARMM. Specific mechanisms for active petitioning and proactive engagement of community-based organizations and sectoral groups in FNS reviews, planning, and implementation have yet to be established.

The school-feeding project discussed in the next section will showcase the engagement of farmers' and women's organizations in an FNS project.

Translating a Policy Coherence Indicator: Linking Food Security, Nutrition, and Education in the Municipality of Matanog, Maguindanao del Norte, BARMM

The Ministry of Basic, Higher, and Technical Education (MBHTE) of the BARMM has allocated over ₱11 million to support school-based feeding initiatives in Maguindanao, under the implementation of the BARMM Food Security and Nutrition Plan. This funding was afforded to the Home-Grown School Feeding Program for the school year 2025–2026, which aims to enhance learners' nutrition, health, and academic performance through the provision of nutritious meals. The program will benefit 10,451 elementary learners from across ten municipalities in Maguindanao del Norte and Maguindanao del Sur. Particularly, the HGSF program targets 5,244 students from 15 schools in Maguindanao del Norte and 5,207 students from 13 schools in Maguindanao del Sur. Complementary interventions to feeding include the distribution of iron-fortified rice, kitchen equipment, school gardening inputs, deworming services, and the sourcing of vegetables and fruits from local farmers (Tepadan 2025).

In the Municipality of Matanog, the program aims to address malnutrition, promote school attendance, and source fresh produce from nearby farmers. Initially benefiting 500 learners in the Muhammad Ali Guro Elementary School, the HGSFP is now being adopted by three more schools in Matanog. The program feeds learners from Kindergarten to Grade 6 with hot meals daily, regardless of their nutritional status. Iron-fortified rice sponsored by WFP Philippines, which intends to supplement micronutrients, is given in 100-gram portions each meal for every student. Protein-containing food items and vegetables are sourced from local farmers and fisher cooperatives through the MBHTE. The local government unit also provides payment for the cooks and staff in the feeding activities. Additionally, the program necessitates the operation, maintenance, and rehabilitation of school kitchen setup, which the local and provincial administrations augment.

The success of the HGSF was highlighted during the focus group discussion with Municipal Mayor Zohriya Bansil Guro, UN-WFP Philippines, BFSTF, and regional and local ministry representatives in Matanog, Maguindanao

del Norte. Both the municipal mayor and the UN-WFP shared that the commitment of partner communities and sectors, and the political will of the local executives played a crucial role in the program. Mayor Bansil-Guro likewise mentioned that food security and nutrition are one of her key priorities: "'*Pag hindi natin nakita ang nutrisyon nina Babu at Baba, hindi natin makita na tataas ang level ng kanilang pamumuhay. Nandiyan ang malnutrisyon, paano, e pobre sila e*" ("If we do not address the nutrition of our boys and girls, we cannot expect progress in their living status. Their poverty results in malnutrition").

Furthermore, the schools in the municipalities implementing the HGSF Program were also included under the Sustainable Environment Community Uplift and Resilience, or the SECURE Program. SECURE is an umbrella program of the Bangsamoro Food Security Task Force to address food insecurity and malnutrition, while initiating rehabilitation of communities under different physical shocks and stresses. This program targets communities vulnerable to natural disasters and climate change, and provides cash aid through a combination of Cash for Work and Food for Assets. Community partners are given cash (equivalent to one-month lump sum pay) and regular white or iron-fortified rice for six months for the work (assets). Major assets of participating community members include shared rehabilitation work in flood- and landslide-affected areas, while minor assets include participation in livelihood activities for food security and resilience. The convergence of this program is through the cash aid from the Municipal Social Service Department, rice from UN–WFP, farm inputs and tools from the Ministry of Environment and Natural Resources and Energy and the Ministry of Agriculture Fishery and Agrarian Reform, and planning and development activities from the community planning office.

The HGSF program reflects strong collaboration among multiple stakeholders, including the United Nations World Food Programme, local farmers, educators, and local government units. This initiative exemplifies a coordinated and multisectoral approach in operationalizing the BARMM Food Security and Nutrition Plan, highlighting the Bangsamoro Government's commitment to advancing food and nutrition security while promoting child health and educational outcomes.

Conclusion

This review emphasizes the central role of policy coherence in advancing food and nutrition security. The synthesis of literature and institutional reports revealed that there were limited studies that systematically assessed policy coherence measures and indicators. Using the UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1 Domains and Food Systems Policy Coherence Diagnostic Tool developed by GAIN and AKADEMIYA2063 as organizing frameworks, the study identified that most indicators were clustered within the "Policy Linkages" and "Capacity and Implementation" dimensions; while limited attention was given to 'Interministerial and Cross-sectoral Coordination', 'Monitoring and Reporting for Policy Coherence', and and 'Framework Documents' dimensions. Moreover, these indicators can be categorized into four consolidated themes: (1) Cross-linkages and Monitoring, Evaluation, and Accountability; (2) Commitment and Continuity; (3) Coordination and Convergence, and (4) Consultation and Community Engagement. This imbalance highlights the need for a clear, robust, and comprehensive list of indicators for policy coherence in food and nutrition security. Lastly, the case study on the Home-Grown School Feeding Program in the Municipality of Matanog, Maguindanao del Norte illustrated how these policy coherence indicators are translated into coherent actions.

Strengthening policy coherence is particularly vital given that malnutrition forms part of the policy crises we are facing. Several studies have shown that policy fragmentation and competing priorities often destabilize the alignment of food and nutrition goals with broader development agendas (Amparo et al. 2025; Margulis 2013; Popkin et al. 2012). Addressing these tensions requires deliberate efforts to embed consistent principles in policymaking. Eventually, our study findings can contribute to the growing body of knowledge on policy coherence for food and nutrition security by offering empirical evidence for the development of the framework for its measurement, implementation, monitoring, and evaluation.

Research and Policy Recommendations

There are four key research and policy recommendations put forward based on the study findings detailed above.

1. **Contextualizing the Policy Coherence for Food and Nutrition Security Indicators**

   The policy coherence for food and nutrition security indicators identified in this review could be refined and contextualized in the national and local settings. Future research should test the applicability and sensitivity of the indicators in the Philippine context. Establishing clear metrics, scoring criteria, and benchmarks will strengthen the reliability and comparability of coherence assessment in different policy environments.

2. **Enhancing Evidence-Based Policy Design**

   Policy makers and development practitioners could utilize the mapped indicators as evidence-based inputs in designing, implementing, and evaluating food and nutrition security policies. Embedding coherence assessments in policy cycles can support transparent and accountable processes that are aligned with food and nutrition outcomes.

3. **Fostering Collaboration and Policy Learning**

   Achieving food and nutrition security through coherent policies necessitates sustained collaboration among multiple sectors. Establishing platforms for policy dialogues and knowledge exchange can facilitate shared understanding and joint actions. Moreover, national and international cooperation should be encouraged to promote policy learning, harmonize coherence assessment frameworks, and disseminate what truly works in integrating coherence and food and nutrition governance.

4. **Developing Capacities for Food and Nutrition Security Policy Coherence Advancement**

   Capacity development is essential for sustaining the utilization of policy coherence for food and nutrition security indicators. Government agencies, academic institutions, and development partners should be equipped with technical and analytical skills to apply coherence diagnostics effectively. The University of the Philippines Center for Integrative Studies Food and Nutrition Security Program can play a vital role in developing training modules, policy toolkits, and collaborative research initiatives to advance capacities and engage stakeholders.

References

Adhikari, Nabin, Mukesh Adhikari , Namuna Shrestha, Priza Pradhananga, Bikram Poudel, Saurya Dhungel, Prakash Chandra Joshi, Nicole Ide, Guna Nidhi Sharma, and Archana Shrestha. 2023. "Nutrition and Food Security in Nepal: A Narrative Review of Policies." *Nutrition Reviews* 81 (12): 1612–25. https://doi.org/10.1093/nutrit/nuad025.

Amparo, Jennifer Marie, Aileen R. de Juras, Samantha Gabrielle R. Baril, Allysa Mae P. Gargarino, and Alma Katrina Blesilda M. Gonzales. 2025. *Scaling Up and Scaling Wide. Food and Nutrition Policies across the Food Systems in the Philippines*. Discussion Paper 2025-17. Quezon City: University of the Philippines Center for Integrative and Development Studies. Accessed 15 February 2025. https://cids.up.edu.ph/wp-content/uploads/2025/05/Scaling-Up-and-Scaling-Wide_Food-and-Nutrition-Policies-across-the-Food-Systems-in-the-Philippines.pdf.

ASEAN (Association of Southeast Asian Nations). 2017. *ASEAN Regional Guidelines on Food Security and Nutrition Policy 2017*. https://asean.org/wp-content/uploads/2021/08/ASEAN-Regional-Guidelines-on-Food-Security-and-Nutrition-Policy.pdf.

Bangsamoro Parliament. 2025. "BARMM Parliament Approves Bill Creating Region's Nutrition Commission." 19 November 2025. https://parliament.bangsamoro.gov.ph/2025/11/19/barmm-parliament-approves-bill-creating-regions-nutrition-commission/.

BARMM (Bangsamoro Autonomous Region in Muslim Mindanao). 2020. Food Security and Nutrition Roadmap. https://mafar.bangsamoro.gov.ph/barmm-food-security-and-nutrition-map/.

BARMM. 2025. MBHTE Grants P11-M Feeding Fund to Maguindanao Learners as BARMM Concludes Nutrition Month. Bangsamoro Government, 25 July 2025. Accessed 23 December 2025. https://bangsamoro.gov.ph/news/latest-news/mbhte-grants-p11-m-feeding-fund-to-maguindanao-learners-as-barmm-concludes-nutrition-month/.

Browne, Katherine, Adis Dzebo, Gabriela Iacobuta, Alexia Faus Onbargi, Zoha Shawoo, Ines Dombrowsky, Mathias Fridahl, Sara Gottenhuber, and Åsa Persson. 2023. "How Does Policy Coherence Shape Effectiveness and Inequality? Implications for Sustainable Development and the 2030 Agenda." *Sustainable Development* 31 (5): 3161–74. https://doi.org/10.1002/sd.2598.

Caron, Patrick, Gabriel Ferrero y de Loma-Osorio, David Nabarro, Etienne Hainzelin, Marion Guillou, Inger Andersen, Tom Arnold, et al. 2018. "Food Systems for Sustainable Development: Proposals for a Profound Four-Part Transformation." *Agronomy for Sustainable Development* 38 (4). https://doi.org/10.1007/s13593-018-0519-1.

Clapp, Jennifer, William G. Moseley, Barbara Burlingame, and Paola Termine. 2021. "Viewpoint: The Case for a Six-Dimensional Food Security Framework." *Food Policy*, 106 (102164). https://doi.org/10.1016/j.foodpol.2021.102164.

Elbehri, Aziz, ed. 2014. *Climate Change and Food Systems: Global Assessments and Implications for Food Security and Trade*. Rome: Food and Agriculture Organization of the United Nations. https://openknowledge.fao.org/server/api/core/bitstreams/88db916e-01b8-4d3e-92d1-d64e74978d41/content.

FAO (Food and Agriculture Organization). 2017. *Regional Overview of Food Security and Nutrition in Africa 2017. The Challenges of Building Resilience to Shocks and Stresses*. Accra: FAO. https://openknowledge.fao.org/server/api/core/bitstreams/7df1e4ba-e38e-4f13-af06-8153c9eed324/content.

Franklin, Paula, Scott R. Greer, and Michelle Falkenbach. 2019. *Policy Coherence as a Driver of Health Equity*. World Health Organization. https://iris.who.int/server/api/core/bitstreams/acfc9166-065c-4329-a25c-d51f281a7a0d/content.

GAIN and AKADEMIYA2063. 2025. *Food Systems Policy Coherence Diagnostic Tool: Modules 1 & 2*. Geneva: GAIN.

Gitz, Vincent, and Alexandre Meybeck. 2011. "The Establishment of the High Level Panel of Experts on Food Security and Nutrition (HLPE): Shared, Independent and Comprehensive Knowledge for International Policy Coherence in Food Security and Nutrition." *CIRED Working Papers*, no. 2011-30. https://hal.science/hal-00866427/document.

Godin, Katelyn, Jackie Stapleton, Sharon I. Kirkpatrick, Rhona M. Hanning, and Scott T. Leatherdale. 2015. "Applying Systematic Review Search Methods to the Grey Literature: A Case Study Examining Guidelines for School-Based Breakfast Programs in Canada." *Systematic Reviews* 4 (138). https://doi.org/10.1186/s13643-015-0125-0.

Hlahla, Sithabile, Mjabuliseni Ngidi, Sinegugu Evidence Duma, Nafiisa Sobratee-Fajurally, Albert Thembinkosi Modi, Rob Slotow, and Tafadzwanashe

Mabhaudhi. 2023. "Policy Gaps and Food Systems Optimization: A Review of Agriculture, Environment, and Health Policies in South Africa." *Frontiers in Sustainable Food Systems* 7. https://doi.org/10.3389/fsufs.2023.867481.

IDI (INTOSAI Development Initiative) and UN DESA (United Nations Department of Economic and Social Affairs). 2024. *Examining Policy Coherence in the Implementation of the SDGs: An Audit Framework for Supreme Audit Institutions*. Oslo" IDI. https://idi.no/wp-content/uploads/resource_files/pc-audit-framework-final.pdf.

INTOSAI Working Group on Environmental Auditing. 2022. *Auditing Sustainable Development Goals: Key Principles and Tools on Policy Coherence and Multi-stakeholder Engagement for Supreme Audit Institutions*. Working paper 5. https://www.environmental-auditing.org/media/auzf4emi/wgea-wp5_sustainabledevelopementgoals_2022.pdf.

King, Michael, Niels Keijzer, Eunike Spierings, and Alan Matthews. 2012. *Measuring Policy Coherence for Development*. Maastricht: ECDPM (European Centre for Development Policy Management)/Dublin: Institute for International Integration Studies, Trinity College Dublin. https://zoek.officielebekendmakingen.nl/blg-177653.pdf.

Lockwood, Matthew, and Sarah Mulley. 2010. *Policy Coherence and the Future of the UK's International Development Agenda: A Report to World Vision UK*. London: Institute for Public Policy Research. https://ippr-org.files.svdcdn.com/production/Downloads/Policy-Coherence-Future-UK-International-Development-Agenda_full_1755.pdf.

Löhr, E. Julia. 2025. "International Instruments, Domestic Realities: Assessing Policy Coherence and Systemic Change in Philippine Fisheries Ten Years After the EU Yellow Card." Master's thesis. Wageningen University & Research, Netherlands. https://edepot.wur.nl/693998.

Manikas, Ioannis, Beshir M. Ali, and Balan Sundarakani. 2023. "A Systematic Literature Review of Indicators Measuring Food Security." *Agriculture & Food Security* 12 (1). https://doi.org/10.1186/s40066-023-00415-7.

Margulis, Matias E. 2013. "The Regime Complex for Food Security: Implications for the Global Hunger Challenge." *Global Governance: A Review of Multilateralism and International Organizations* 19 (1): 53–67. https://doi.org/10.1163/19426720-01901005.

Meijers, EJ, and D. Stead. 2004. "Policy Integration: What Does It Mean and How Can It Be Achieved? A Multidisciplinary Review." In *2004 Berlin Conference on the Human Dimensions of Global Environmental Change: Greening of Policies - Interlinkages and Policy Integration, Freie Universität Berlin*. Berlin: German Political Science Association.

Monticone, Francesca, and Antonella Samoggia. 2023. "Food Policy Coherence and Integration: A Review of Adopted Methodologies." *Rivista di economia agraria* 78 (3): 35–49. https://doi.org/10.36253/rea-14439.

National Economic and Development Authority. 2024. "Statement on the 2023 Full Year Official Poverty Statistics of Arsenio M. Balisacan, PhD, Secretary, National Economic and Development Authority." 15 August 2024. Accessed 26 December 2025. https://dro7.depdev.gov.ph/wp-content/uploads/2024/08/statement-on-the-2023-full-year-official-poverty-statistics.jpg.

Nhamo, Luxon, Bekithemba Ndlela, Charles Nhemachena, Tafadzwanashe Mabhaudhi, Sylvester Mpandeli, and Greenwell Matchaya. 2018. "The Water-Energy-Food Nexus: Climate Risks and Opportunities in Southern Africa." *Water* 10 (5): 567. https://doi.org/10.3390/w10050567.

OECD (Organisation for Economic Co-operation and Development). 2005. *The Development Dimension Policy Coherence for Development Promoting Institutional Good Practice*. Paris: OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2005/10/policy-coherence-for-development_g1gh56bb/9789264108554-en.pdf.

OECD. 2015. *Better Policies for Development 2015: Policy Coherence and Green Growth*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264236813-en.

OECD. 2016. *Better Policies for Sustainable Development 2016: A New Framework for Policy Coherence*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264256996-en.

OECD. 2017. *Policy Coherence for Sustainable Development 2017: Eradicating Poverty and Promoting Prosperity*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264272576-en.

OECD. 2021. "Making Coherent Policies for Food Systems." *Agriculture Policy Brief*, January 2021. https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/01/making-coherent-policies-for-food-systems_aa5f8396/fe6a089a-en.pdf.

OECD. 2024. *Unleashing Policy Coherence to Achieve the SDGs: An Assessment of Governance Mechanisms*. Paris: OECD Publishing. https://doi.org/10.1787/a1c8dbf8-en.

Page, Matthew J., Joanne E. McKenzie, Patrick M. Bossuyt, Isabelle Boutron, Tammy C. Hoffmann, Cynthia D. Mulrow, Larissa Shamseer, L., et al. 2021. "The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews." *BMJ 372* (n71). https://doi.org/10.1136/bmj.n71.

Parsons, Kelly, and Corinna Hawkes. 2019. "Policy Coherence in Food Systems." In *Rethinking Food Policy: A Fresh Approach to Policy and Practice*. London: Centre for Food Policy. https://symposium.bayes.citystgeorges.ac.uk/__data/assets/pdf_file/0018/504621/7643_Brief-5_Policy_coherence_in_food_systems_2021_SP_AW.pdf.

Pérez-Escamilla, Rafael. 2024. "Food and Nutrition Security Definitions, Constructs, Frameworks, Measurements, and Applications: Global Lessons." *Frontiers in Public Health* 12. https://doi.org/10.3389/fpubh.2024.1340149.

Philippine Statistics Authority. 2024. "11 Out of 18 Regions Recorded Significant Decreases in Poverty Incidence in 2023." 15 August 2024. Accessed 26 December 2025. https://psa.gov.ph/content/11-out-18-regions-recorded-significant-decreases-poverty-incidence-2023.

Popkin, Barry M., Linda S. Adair, and Shu Wen Ng. 2012. "Global Nutrition Transition and the Pandemic of Obesity in Developing Countries." *Nutrition Reviews* 70 (1): 3–21. https://doi.org/10.1111/j.1753-4887.2011.00456.x.

Proudfoot, Kevin. 2023. "Inductive/Deductive Hybrid Thematic Analysis in Mixed Methods Research." *Journal of Mixed Methods Research* 17 (3): 308–26. https://doi.org/10.1177/15586898221126816.

Simelane, Kwanele Siyabonga, and Steve Worth. 2020. "Food and Nutrition Security Theory." *Food and Nutrition Bulletin* 41 (3): 367–79. https://doi.org/10.1177/0379572120925341.

Tchinda, Alain Fopa, and David Talbot. 2023. "Barriers and Enablers of Environmental Policy Coherence: A Systematic Review." *Environmental Policy and Governance* 34 (1): 77–92. https://doi.org/10.1002/eet.2057.

Tepadan, Myrna. 2025. "MBHTE Grants P11-M Feeding Fund to Maguindanao Learners as BARMM Concludes Nutrition Month." Bangsamoro Autonomous Region in Muslim Mindanao, 31 July 2025. https://

bangsamoro.gov.ph/news/latest-news/mbhte-grants-p11-m-feeding-fund-to-maguindanao-learners-as-barmm-concludes-nutrition-month/.

Thow Anne Marie, Sharon Friel, Cha-aim Pachanee, Thi My Thien Mai, Reginald Annan, Nicholas Nisbett, Ana Clara Duran, et al. 2025. "Trade, Investment and Nutrition: Status Update and Policy Coherence Challenges of the United Nations Decade of Action on Nutrition; World Public Health Nutrition Association Working Group on Trade and Investment for Good Nutrition." *World Nutrition* 16 (1): 81–96. https://doi.org/10.26596/wn.202516181-96.

Ulep, Valerie Gilbert T., ed. 2025. *Raising the Bar: Understanding and Solving Chronic Malnutrition in the Philippines*. Quezon City: Philippine Institute for Development Studies (PIDS) & United Nations Children's Fund (UNICEF). https://www.pids.gov.ph/publication/books/raising-the-bar-understanding-and-solving-chronic-malnutrition-in-the-philippines.

Ulimwengu, John, James Warner, Vine Mutyasira, and Boaz Keizire. 2024. "Comprehensive Mapping of Food Systems Is Necessary to Guide Transformation Efforts: The Case of Rwanda." *AGRA-IFPRI Policy Brief*, no. 4. https://cgspace.cgiar.org/server/api/core/bitstreams/0e53237a-f7ff-414e-8eb6-26b8d3000585/content.

UNEP (United Nations Environment Programme). 2019. "Methodology for SDG-indicator 17.14.1: Mechanisms in Place to Enhance Policy Coherence for Sustainable Development." https://wesr.unep.org/media/docs/projects/methodology_17_14_1.pdf.

UNEP (United Nations Environment Programme). (2024). *Handbook for SDG Indicator 17.14.1 of the Sustainable Development Goals*. UNEP. https://www.unep.org/resources/publication/policy-coherence-sustainable-development-handbook-indicator-17141-sustainable.

Wahbeh, Sabreen, Foivos Anastasiadis, Balan Sundarakani, and Ioannis Manikas. 2022. "Exploration of Food Security Challenges Towards More Sustainable Food Production: A Systematic Literature Review of the Major Drivers and Policies." *Foods* 11 (23): 3804. https://doi.org/10.3390/foods11233804.

World Food Programme. 2022. "The Philippines Food Security Monitoring. Remote Household Food Security Survey Brief." October 2022. Accessed 26 December 2025. https://www.wfp.org/publications/wfp-philippines-food-security-monitoring-october-2022.

World Health Organization. Regional Office for South-East Asia. 2008. *Food and Nutrition Policy and Plans of Action: Report of the WHO-FAO Inter-country Workshop, Hyderabad, India*, 17-21 December 2007. WHO Regional Office for South-East Asia. https://iris.who.int/handle/10665/205117.

Yusoph, Raihan A. 2025. "Peace Without Progress: The Sustainability Dilemma in the Bangsamoro." *Trends in Peace and Sustainability* 2 (5): 1–5. Accessed 26 December 2025. https://nerps.org/wp-content/uploads/2025/12/Trends-2025-11-Yusoph-1-1.pdf.

Zembe, Annegrace, Livhuwani David Nemakonde, and Paul Chipangura. 2023. "A Policy Coherence Framework for Food Security, Climate Change adaptation and Disaster Risk Reduction in South Africa." *International Journal of Disaster Risk Reduction* 95, (103877). https://doi.org/10.1016/j.ijdrr.2023.103877.

Annex

Annex A. Studies and reports from databases, IFPRI, FAO and OECD websites examining policy coherence for food and nutrition measurement

Author and Publication Year	Journal/Website	Possible Measures and Indicators
Adhikari et al. (2023)	Nutrition Reviews	■ Coordination with different sectors ■ Commitment to nutrition improvement ■ Institutional capacity development ■ High-level policy support ■ Partnerships with various organizations ■ Monitoring and evaluation system
Caron et al. (2018)	Agronomy for Sustainable Development	■ Assessment of food systems' contribution to the SDGs ■ Achievement of impact at scale through local-level action ■ Management of the intersection of global and local priorities through a territorial approach
Hlahla et al. (2023)	Frontiers in Sustainable Food Systems	■ Inclusive governance, investments, and political will ■ Capacity building ■ Establishment of communities of practice ■ Cost-benefit analysis of policies
Nhamo et al. (2018)	Water	■ Policy and governance strengthening ■ Political commitment ■ Cooperation and commitment of member countries ■ Promotion of public awareness ■ Recognition of the role of broadened and natural boundaries in socioeconomic security ■ Provision of scientific evidence and tools to identify trade-offs and support resource allocation strategies
Ulimwengu et al. (2024)	IFPRI	■ Creation of an interministerial coordinating body

Author and Publication Year	Journal/Website	Possible Measures and Indicators
		■ Improvement in infrastructure and data-sharing mechanisms ■ Institutional capacity-building programs ■ Financial support ■ Monitoring and evaluation systems
FAO (2015)	FAO	■ Implementation of coherent cross-sectoral, national, and regional strategies ■ Integration of climate responses with pro-poor development strategies ■ Development of policies from robust and reliable science-based evidence
FAO (2017)	FAO	■ Integrated policies and accountability mechanisms ■ Translation of political commitment to concrete actions ■ Mobilization of innovative financing
OECD (2016)	OECD	■ Assessing how domestic policies influence the four key dimensions of food security ■ Determining policy interlinkages of relevance to food security (horizontal coherence) ■ Reformulation or removal of policies that create negative spill-over effects ■ Warranting coherence of actions for food security at and between different levels of government (vertical coherence) ■ Considering diverse sources of finance to improve food security and ensure complementarities; and ■ Taking into account contextual factors and creating enabling conditions for ensuring global food security
OECD (2017)	OECD	■ Broadening strategies and interventions outside agriculture

Author and Publication Year	Journal/Website	Possible Measures and Indicators
		■ Fostering multilevel governance structures that improve horizontal and vertical alignments ■ Expanding data and indicator availability at local and regional levels to inform evidence-based policies ■ Harmonizing social policies with economic growth policies

Annex B. Indicators and data compilations in monitoring global food security (from OECD, 2015)

Relation to global food security*	Indicator/Data compilation
Enablers	■ Research and development expenditure on agriculture, hunting, and forestry ■ Research and development spending on energy efficiency ■ Aid for food and nutrition security ■ Aid to the agriculture and rural development sector ■ Agricultural nutrient balances
Potential trade-offs	■ Support for agriculture that is most production and trade distorting ■ Support for agriculture, which is the most environmentally harmful ■ Support for fertilizers and biofuels ■ Import and export restrictions ■ Production of renewable energy
Effects	■ Households experiencing food security ■ Households are unable to have a healthy diet ■ Overweight/obese population ■ People living in areas of water stress, freshwater resources, and water productivity ■ Crop yields ■ GHG emissions from agriculture

*Enablers are indicators that measure factors that can contribute to building global food security; Potential trade-offs are indicators that may be used to illustrate the possibility of unintended spillover effects; Effects are indicators that may be used to deduce the impact of certain policies, whether positive or negative.

Annex C. Alignment of the policy coherence indicators identified in studies and reports with the key assessment areas in the UNEP Policy Coherence for Sustainable Development Composite Indicator 17.14.1

Key assessment areas	Identified indicators
Institutionalized political commitment (n = 5)	■ Commitment to nutrition improvement ■ High-level policy support ■ Political commitment ■ Cooperation and commitment of member countries ■ Translation of political commitment to concrete actions
Long-term considerations (n = 5)	■ Institutional capacity development ■ Achievement of impact at scale through local-level action ■ Capacity building ■ Improvement in infrastructure and data-sharing mechanisms ■ Institutional capacity-building programs
Interministerial and cross-sectoral coordination (n = 3)	■ Creation of an interministerial coordinating body ■ Integration of climate responses with pro-poor development strategies ■ Broadening strategies and interventions outside agriculture
Participatory processes (n = 4)	■ Inclusive governance, investments, and political will ■ Establishment of communities of practice ■ Promotion of public awareness ■ Taking into account contextual factors and creating enabling conditions for ensuring global food security
Policy linkages: Integration of the three dimensions of sustainable development, assessment of policy effects, and linkage (n = 12)	■ Assessment of food systems' contribution to the SDGs ■ Management of the intersection of global and local priorities through a territorial approach ■ Cost-benefit analysis of policies ■ Policy and governance strengthening ■ Recognition of the role of broadened and natural boundaries in socioeconomic security ■ Development of policies from robust and reliable science-based evidence ■ Integrated policies and accountability mechanisms

Key assessment areas	Identified indicators
	■ Assessing how domestic policies influence the four key dimensions of food security ■ Determining policy interlinkages of relevance to food security (horizontal coherence) ■ Reformulation or removal of policies that create negative spill-over effects ■ Expanding data and indicator availability at local and regional levels to inform evidence-based policies ■ Harmonizing social policies with economic growth policies
Consultation and coordination across government levels (n = 5)	■ Coordination with different sectors ■ Partnerships with various organizations ■ Implementation of coherent cross-sectoral, national, and regional strategies ■ Warranting coherence of actions for food security at and between different levels of government (vertical coherence) ■ Fostering multilevel governance structures that improve horizontal and vertical alignments
Monitoring and reporting for policy coherence (n = 3)	■ Monitoring and evaluation system ■ Monitoring and evaluation systems ■ Effects
Financial resources and tools (n = 6)	■ Provision of scientific evidence and tools to identify trade-offs and support resource allocation strategies ■ Financial support ■ Mobilization of innovative financing ■ Considering diverse sources of finance to improve food security and ensure complementarities ■ Enablers ■ Potential trade-offs

Annex D. Alignment of the policy coherence indicators identified in studies and reports with the key assessment areas in the Food Systems Policy Coherence Diagnostic Tool

Key assessment areas	Identified indicators
Framework Documents (n = 0)	■ None
Political Commitment (n = 5)	■ Commitment to nutrition improvement ■ High-level policy support ■ Political commitment ■ Cooperation and commitment of member countries ■ Translation of political commitment to concrete actions
Capacity and Implementation (n = 31)	■ Institutional capacity development ■ Assessment of food systems' contribution to the SDGs ■ Achievement of impact at scale through local-level action ■ Management of the intersection of global and local priorities through a territorial approach ■ Capacity building ■ Establishment of communities of practice ■ Cost-benefit analysis of policies ■ Policy and governance strengthening ■ Promotion of public awareness ■ Recognition of the role of broadened and natural boundaries in socioeconomic security ■ Provision of scientific evidence and tools to identify trade-offs and support resource allocation strategies ■ Improvement in infrastructure and data-sharing mechanisms ■ Institutional capacity-building programs ■ Financial support ■ Implementation of coherent cross-sectoral, national, and regional strategies ■ Integration of climate responses with pro-poor development strategies ■ Development of policies from robust and reliable science-based evidence

Key assessment areas	Identified indicators
	■ Integrated policies and accountability mechanisms ■ Mobilization of innovative financing ■ Assessing how domestic policies influence the four key dimensions of food security ■ Determining policy interlinkages of relevance to food security (horizontal coherence) ■ Reformulation or removal of policies that create negative spillover effects ■ Warranting coherence of actions for food security at and between different levels of government (vertical coherence) ■ Considering diverse sources of finance to improve food security and ensure complementarities ■ Taking into account contextual factors and creating enabling conditions for ensuring global food security ■ Broadening strategies and interventions outside agriculture ■ Fostering multilevel governance structures that improve horizontal and vertical alignments ■ Expanding data and indicator availability at local and regional levels to inform evidence-based policies ■ Harmonizing social policies with economic growth policies ■ Enablers
Coordination Structures (n = 2)	■ Coordination with different sectors ■ Creation of an interministerial coordinating body
Inclusivity, Stakeholder Engagement, and Voice (n = 2)	■ Partnerships with various organizations ■ Inclusive governance, investments, and political will
Monitoring and Accountability (n = 3)	■ Monitoring and evaluation system ■ Monitoring and evaluation systems ■ Effects

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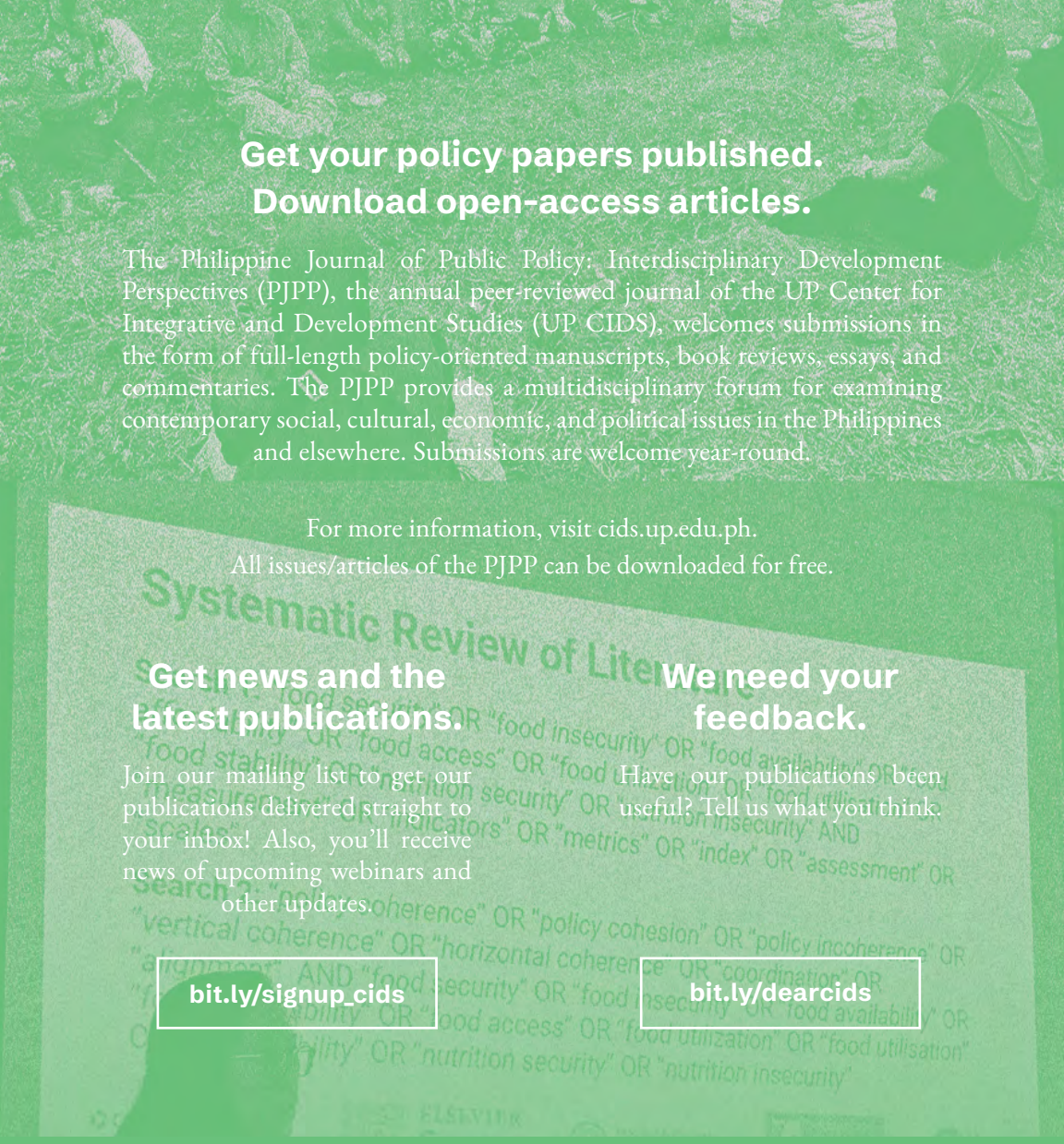
The Program

Like many developing countries in Southeast Asia, food security in the Philippines remains a tall order. Challenges continue to abound in food availability, access, utilization and their stability over time. The adverse weather condition, political instability and economic factors such as unemployment, eroding income levels and rising food prices have proven to impact negatively on food security. Interventions to improve the food systems' resilience and farm production of a more diverse mix of food, as well as attempts to increase farm income necessary for purchases of vital and wider array of food have generally fallen short of targets especially among vulnerable and marginalized groups.



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