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Research article

# Policy Integration Deficit in the Governance of the Food Estate

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## Abstract

*The Food Estate was designed as a cross-sectoral program to strengthen food security through relationships among planning, production, water management, land, the environment, institutions, processing, and distribution. Studies have examined the environmental risks, implementation, coordination, and accountability of the Food Estate, but the relationships among goals, authority, instruments, and policy learning have often been analyzed separately. This study aims to explain why cross-sectoral problems persist and how a policy integration deficit emerges in Food Estate governance. The study uses a qualitative approach based on document analysis of 10 core sources from 2012–2026, consisting of two national regulations or policy frameworks, three official state documents, one Taskap as an initial source, and four empirical studies, supported by 20 additional publications. The analysis uses Candel and Biesbroek's four dimensions, with Peters' perspective used to interpret interorganizational coordination. The findings show that the Food Estate has a formal cross-sectoral design and a relatively complete set of instruments, but shared outcomes have not always been translated into sufficiently strong linkages among authority arrangements and policy instruments. Instrument effectiveness depends on the sequencing of site designation, land and water management, cultivation, post-harvest activities, and downstream activities. Monitoring and evaluation mechanisms are available, but evidence of shared-outcome indicators and cross-sectoral policy learning remains limited. The study concludes that the central problem lies not only in the performance of individual sectors, but in the quality of relationships among goals, authority, instruments, and evaluation processes. These findings underscore the importance of assessing interorganizational relationships in cross-sectoral programs.*

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## 1. Introduction

Food security is not only a matter of how much food can be produced. It also concerns whether food is sufficiently available, safe, of good quality, nutritious, equitably distributed, and affordable to the public. Law No. 18 of 2012 places these elements within the definition of food security (Republik Indonesia, 2012). Therefore, large-scale food policy cannot rely on the agricultural sector alone. Land and water management, infrastructure, the environment, distribution, markets, and social conditions also shape its success.

Within this framework, the government has positioned the Food Estate as one of its strategic programs to strengthen national food supply. The National Food Supply Enhancement Program through the Food Estate was included among the National Strategic Projects through Presidential Regulation No. 109 of 2020 (Republik Indonesia, 2020). The program's formal design also shows that the Food Estate is not understood merely as agricultural land expansion. Bappenas developed its master plan using a socio-ecological systems approach and linked geospatial aspects, farm-level production activities, and post-production activities such as processing and distribution. Bappenas also emphasized that the integration of these three aspects should provide the basis for synchronizing planning and budgeting across ministries/agencies (Kementerian PPN/Bappenas, 2021).

However, a cross-sectoral design is not always easy to translate into implementation. The BPK audit of Food Estate planning, implementation, monitoring, and evaluation for Fiscal Year 2020 through the third quarter of 2021 identified several important problems. These included planning that was not yet fully based on valid data and information, problems in site designation, and issues in the implementation of survey, investigation, and design (SID), extensification, and intensification at the audited locations (BPK RI, 2022). These findings cannot be used to represent the entire Food Estate across all locations and periods. They nevertheless show that a program designed from the outset as cross-sectoral still faced problems in the relationships among planning, site selection, instruments, and implementation.

A range of studies has examined Food Estate problems from different perspectives. McCarthy and Obidzinski (2017) show that different understandings of food security, food self-sufficiency, and food sovereignty can lead to different policy choices. In the contemporary Food Estate, studies have highlighted socio-economic and natural-resource risks on peatlands (Yeny et al., 2022), food sovereignty and the position of local producers (Siborutorop, 2023), implementation challenges (Rasman et al., 2023; Risdianto et al., 2024), and governance and accountability (Sawir et al., 2026). Political-economy research also indicates that relations among the state, capital, and resource control are important when examining Food Estate projects (Abdulgani & Savitri, 2025).

Studies of peatland management show that food policies in ecologically vulnerable areas need to bring technical, institutional, and ecological considerations together. Uda et al. (2020) emphasize institutional fit in peatland governance; Astuti (2020) and Atkinson and Alibašić

(2023) highlight the importance of cross-scale relationships and climate resilience; while Yuwati et al. (2021), Puspitaloka et al. (2021), Sanudin et al. (2023), and Ramdani and Mustalahti (2023) show that peatland restoration and management require a combination of technical approaches, allocation of roles, and cooperation among actors. From the perspective of food production, Hidayat et al. (2023) and Lupascu et al. (2023) also show the need to reconcile production goals with ecological functions and climate mitigation.

Other studies indicate that cross-sectoral food problems cannot be understood from a single policy field. Dewi et al. (2024) emphasize the importance of examining policy alignment and trade-offs in food-system transformation. Harahap et al. (2017) show that land-use targets from different sectors can create problems when sectoral needs are not aligned. Dombrowsky et al. (2022) likewise show that the quality of coordination in cross-sectoral problems is shaped by the coherence of functions and policies across actors. In the Indonesian context, Nugroho et al. (2025) emphasize multisectoral coordination, institutional integration, and monitoring in food policy, while Astuti et al. (2026) highlight the importance of collaborative governance for food security.

Nevertheless, most Food Estate studies still discuss these problems separately. Some emphasize environmental issues, while others focus on implementation, participation, production, coordination, power, or accountability. Studies that specifically examine the relationships among problem framing, policy goals, the distribution of authority, the use of instruments, and learning processes as a single analytical sequence remain limited. Yet in cross-sectoral programs, a problem in one area may be connected to another. Site selection, for example, may be related to water management and cultivation choices, while production outcomes also depend on processing, institutions, and marketing.

This limitation creates the analytical space for this article. The article does not begin from the assumption that every Food Estate problem is an integration problem. Implementation capacity, coordination, and technical weaknesses may still occur and need to be distinguished. The study focuses on testing whether problems in goals, authority, instruments, and monitoring and evaluation are sufficiently interconnected to be understood as a policy integration deficit.

To examine these relationships, the article uses Candel and Biesbroek's (2016) policy integration framework. Put simply, the framework asks whether policies involving multiple sectors are genuinely connected across four dimensions: how the problem is understood, the goals to be achieved, the actors and authorities involved, and the instruments used. Peters' (2018) perspective is used as a supporting explanation for understanding interorganizational coordination. Coordination primarily helps align activities and information, whereas integration requires stronger relationships among goals, decisions, authority, and instruments. Policy coherence is used in a narrower sense, referring to the alignment of goals and instruments so that one policy does not undermine another (Dewi et al., 2024; Dombrowsky et al., 2022).

In this article, a policy integration deficit is understood as the gap between the need to work

in an integrated manner and the relationships that are actually formed in policy implementation. A deficit does not mean that the Food Estate has no elements of integration. Official documents instead show a cross-sectoral design. A deficit can be identified only when the evidence indicates that goals, authority, instruments, or evaluation processes that should support one another are not sufficiently connected to produce shared outcomes.

Based on this problem, the study asks: why does the Food Estate continue to face cross-sectoral implementation problems despite policy support and a cross-sectoral design, and how does a policy integration deficit emerge in its governance? The question is addressed by examining four interrelated elements: the policy frame, policy goals, actor involvement and authority, and relationships among policy instruments. Monitoring, evaluation, and policy learning are treated as cross-cutting themes to assess whether implementation experience actually becomes a basis for policy improvement.

The objective of this study is to explain the relationships among these components and assess whether the documented problems indicate a policy integration deficit. The article argues that the main problems of the Food Estate cannot be adequately explained by weaknesses in a single sector. The more important issue lies in the quality of relationships among goals, authority, instruments, and evaluation processes. Its contribution to Public Administration is to show that the success of cross-sectoral programs cannot be assessed solely from the performance of individual organizations. It is also necessary to examine the government's capacity to connect decisions and instruments across institutions toward the same outcomes. The article does not propose a new theory that applies universally, but provides an empirical explanation of how a policy integration deficit can emerge in public programs involving multiple organizations and instruments.

## 2. Method

This study uses a qualitative approach based on document analysis. The method was selected because the study does not aim to quantify the impact of the Food Estate on production or national food security. Instead, it examines how the policy is designed and connected in implementation: how the food problem is understood, how program goals are formulated, how authority is distributed, how instruments from different sectors depend on one another, and how monitoring and evaluation are used as feedback for the program. Document analysis makes it possible to trace these issues through regulations, planning and implementation documents, official audit findings, and scientific studies. Morgan (2022) describes qualitative document analysis as a systematic process of selecting, reading, organizing, and interpreting documents as research data.

The sources used in this study are not treated as if they have the same status. Regulations are used to identify mandates and the normative framework. Official government documents are used to trace program design, allocation of roles, instruments, and monitoring and evaluation mechanisms. Official audit findings are used to identify implementation problems that can be officially traced. Scientific articles are used to supplement empirical evidence and compare

findings across sources. This distinction is important to avoid conflating case evidence, theoretical explanation, and supporting information.

### 2.1 Data Sources and Document Selection

The study uses 10 core sources that are analyzed directly to answer the research question. These sources include two national regulations or policy frameworks, three official state documents on program design, implementation, and monitoring and evaluation, one Individual Scientific Paper (Taskap) used as an initial source, and four empirical studies that directly examine the contemporary Food Estate. The three official state documents used as core sources are a Bappenas document on Food Estate design (Kementerian PPN/Bappenas, 2021), the Ministry of Agriculture's General Guidelines for the Food Estate (Kementerian Pertanian, 2020), and BPK RI's audit findings on planning, implementation, and monitoring-evaluation for the 2020 to third-quarter 2021 phase (BPK RI, 2022). In addition to these 10 core sources, 20 methodological, theoretical, historical, and comparative publications are used as supporting literature. The supporting literature helps develop analytical categories and compare findings, but is not treated as direct evidence of Food Estate implementation.

**Table 1. Composition of the Study's Core Sources**

| Source type | Function in the analysis | Period | Number |
|---|---|---|---|
| National regulations/policy frameworks | Mandates, problem definitions, and formal goals | 2012–2020 | 2 |
| Official state documents | Program design, roles, instruments, monitoring-evaluation, and audit findings | 2020–2022 | 3 |
| Taskap as an initial source | Initial mapping of problems and sources, subsequently reverified | 2025 | 1 |
| Empirical Food Estate studies | Evidence on risks, implementation, governance, and accountability | 2022–2026 | 4 |
| Total core sources | Case evidence | 2012–2026 | 10 |

*Source: compiled by the author, 2026.*

The four empirical studies were selected because each provides direct evidence on the Food Estate from a different perspective: socio-ecological risks on peatlands (Yeny et al., 2022), a food-sovereignty perspective (Siborutorop, 2023), implementation challenges (Rasman et al., 2023), and governance and accountability (Sawir et al., 2026). These four studies are not treated as representative of all Food Estate locations. Their function is to provide empirical evidence that can be compared with the formal program design and official state sources.

The Food Estate Taskap prepared previously (Ummah, 2025) is used only as a starting point for mapping problems and sources. This article does not adopt the Taskap's conclusions as final findings. The research question was reformulated, the evidence was recoded using the policy integration framework, the initial sources were traced back to verifiable documents,

and the literature was updated through 2026. The article therefore constitutes a new analysis with a different research question and analytical procedure, rather than a summary or republication of the Taskap.

Sources were selected purposively based on four considerations. First, a source had to relate directly to Food Estate design or implementation. Second, it had to have a defensible level of authority, with priority given to regulations, official government documents, official audit findings, and scientific articles. Third, its bibliographic identity and provenance had to be traceable. Fourth, it had to be relevant to the analytical period. Sources were excluded if their identity could not be verified, if they merely repeated information already available in a more authoritative source, or if they did not help answer the research question.

This study is not a systematic literature review. The search was therefore not intended to collect every publication ever issued on the Food Estate. Its purpose was to assemble a set of core sources strong enough to answer the research question and allow cross-checking among formal design, implementation, audit findings, and empirical studies.

### 2.2 Unit of Analysis

The unit of analysis is neither a single ministry nor a single Food Estate location. It is the policy relationships reflected in the documents. These relationships include how the food problem is framed; how production, social, environmental, and welfare goals are connected; how authority is distributed among actors; how policy instruments depend on one another; and how monitoring and evaluation are used as feedback for the program.

Examples from Central Kalimantan, Kapuas, or Pulang Pisau are used to explain mechanisms documented in the sources. They are not used to claim that the same conditions apply to every Food Estate location. This limitation is important because program design and implementation may vary across places and periods.

### 2.3 Analysis and Coding Process

The analysis was conducted in five stages. First, all sources were inventoried and distinguished between core sources and supporting literature. Second, document passages related to the research question were identified and recorded. Third, each piece of evidence was assigned an initial code based on its content, such as “production goals,” “shared outcomes,” “water-management authority,” “instrument interdependence,” or “evaluation without evidence of decision change.” Fourth, the codes were grouped into the four dimensions of Candel and Biesbroek's (2016) framework: policy frame, policy goals, actor involvement and authority, and policy instruments. Fifth, findings across the four dimensions were compared to assess whether weaknesses stood alone or formed an interconnected pattern.

Peters' (2018) perspective is used in a limited way to help interpret interorganizational coordination. It is not treated as a second framework equivalent to Candel and Biesbroek's. Monitoring, evaluation, and policy learning are also not treated as a fifth dimension. Instead, they are used as cross-cutting themes to assess whether information from implementation

becomes a basis for improving decisions.

**Table 2. Example of the Document → Evidence → Code → Finding Chain**

| Document/evidence | Initial code | Analytical category | Analytical finding |
|---|---|---|---|
| Bappenas links geospatial aspects, production activities, and downstream activities | Cross-sectoral design | Policy frame | The formal design requires cross-sectoral relationships. |
| The Ministry of Agriculture guidelines link site selection, land and water management, cultivation, post-harvest activities, institutions, marketing, and evaluation | Interdependent sequence of instruments | Instruments | Program effectiveness depends on the sequencing of and relationships among instruments. |
| BPK identified problems in planning data, site designation, SID, extensification, and intensification during the audited phase | Problems in prerequisite instruments | Instruments/implementation | Early-stage problems are relevant to subsequent instruments, but are not used to claim a complete causal relationship. |
| Program guidelines provide for monitoring and evaluation, but the analyzed sources do not systematically show decision changes after evaluation | Evaluation exists; evidence of learning is limited | Cross-cutting theme | Monitoring and evaluation do not automatically amount to policy learning. |

*Source: compiled by the author, 2026.*

### 2.4 Analysis and Study Limitations

Analytical rigor is maintained in three ways. First, each major claim is traced back to a source with clear authority or identity. Second, whenever possible, a claim is checked by comparing more than one type of source, for example a planning document with audit findings or empirical research. Third, documentary evidence is separated from the author's interpretation. In the results section, the evidence is presented first before its analytical meaning is drawn.

The study also applies a cautious approach to drawing conclusions. The involvement of many organizations is not automatically described as fragmentation. Overlapping functions are not automatically labeled duplication. The existence of monitoring and evaluation is not automatically treated as policy learning. Differences in authority, resources, or actor positions are analyzed only to the extent that they can be traced in the documents. The study does not infer hidden political interests or power relations for which there is no evidence in the analyzed sources.

Credibility is strengthened through source triangulation by comparing regulations, government documents, official audit findings, and scientific studies. The analytical trail is maintained through a source inventory and coding matrix linking documents, evidence, codes, categories, and findings. Claims that cannot be verified through sufficiently strong sources are not used as the basis for the main argument.

The study does not use interviews, field observations, or new quantitative measurements. Therefore, its findings are not intended to estimate the causal effect of integration on productivity or food security, nor are they used to claim that the identified pattern applies uniformly across all Food Estate locations. Documents are also not always sufficient to explain informal negotiations, resource distribution, political interests, or agenda-setting power that are not recorded. Accordingly, the analysis of power relations and cross-sectoral learning is limited to formal evidence that can be traced.

## 3. Results and Discussion

### 3.1 Results

#### 3.1.1 Policy Frame: The Food Estate Was Designed as a Cross-Sectoral Program

Official documents show that from the outset the Food Estate was not positioned solely as a program to increase agricultural production. Law No. 18 of 2012 defines food security more broadly, including sufficient, safe, high-quality, nutritious, equitable, and affordable food. This framework means that the food problem cannot be separated from distribution, purchasing power, food quality, and resource sustainability (Republik Indonesia, 2012).

The same orientation is evident in the Food Estate master plan prepared by Bappenas. The document adopts a socio-ecological systems approach and links three broad groups of activities: geospatial aspects, farm-level production activities, and post-production activities such as processing and distribution. Bappenas also emphasizes that the integration of these three aspects should provide the basis for synchronizing planning and budgeting across ministries/agencies (Kementerian PPN/Bappenas, 2021).

The Ministry of Agriculture's guidelines show a similarly broad scope. The General Guidelines for the Food Estate in Central Kalimantan include not only cultivation, but also the identification of prospective farmers and prospective land, land and water management, agricultural machinery, post-harvest activities, strengthening farmer institutions, financing, marketing, as well as control and evaluation (Kementerian Pertanian, 2020).

This evidence shows that at the level of formal design, the Food Estate has a broad and cross-sectoral policy frame. The findings therefore do not support the assumption that the Food Estate was formally designed only as an expansion of production. The question to be examined at the next stage is whether this broad frame is translated consistently into goals, the distribution of authority, policy instruments, and evaluation.

#### 3.1.2 Policy Goals: Shared Outcomes Exist, but Their Degree of Operationalization Differs

Government planning documents identify increased food production and availability as important Food Estate outcomes. At the same time, the program design also links area

development with improvements in farmer welfare, stronger value chains, and the sustainability of resource management (Kementerian PPN/Bappenas, 2021; Kementerian Pertanian, 2020).

In this study, the term shared outcomes is used as an analytical summary of these objectives. Shared outcomes primarily refer to increased food availability and production accompanied by improved producer welfare. Meanwhile, the integration of spatial planning, production, water management, processing, distribution, and area sustainability is treated as a set of conditions required to support their achievement. Shared outcomes are not the official name of a single government indicator; rather, the term is the study's way of summarizing objectives that are dispersed across several documents.

The documentary evidence also shows that some goals are more readily translated into activity targets than others. Production, planted area, productivity, land and water management, technology, and production facilities can be expressed through relatively direct measures. Socio-ecological outcomes, by contrast, require more complex measures and relationships among activities (Kementerian Pertanian, 2020; Ummah, 2025).

This finding does not mean that social and environmental objectives are absent from the policy design. What is visible is a difference in how these goals are translated into measures and implementation instruments. The gap at the goal level is therefore better understood as a problem in the relationship among goals that must be achieved simultaneously, rather than as a simple conflict between production and the environment.

### 3.1.3 Actor Involvement and Authority: Multiple Organizations, Interdependent Outcomes

Food Estate implementation involves several different governmental functions. Bappenas plays a role in planning and program synchronization, while the Ministry of Agriculture handles various production activities, land and water management, farmer institutions, post-harvest activities, and marketing. Spatial planning, land administration, environmental matters, infrastructure, and local implementation also require relationships with other organizations in accordance with their respective mandates (Kementerian PPN/Bappenas, 2021; Kementerian Pertanian, 2020).

The involvement of multiple organizations does not in itself indicate a problem. The division of labor is a consequence of the program's cross-sectoral character. The more important finding is interdependence among areas of authority. Production targets, for example, cannot be separated from site readiness, water management, and land conditions that serve as prerequisites for cultivation (Kementerian Pertanian, 2020).

A similar relationship is visible in site designation. Area selection is not related only to production needs, but also to geospatial data, land conditions, spatial planning, and

environmental considerations. Bappenas notes the need to integrate geospatial aspects with production and downstream activities, indicating that site selection is a cross-functional decision rather than merely a cultivation decision (Kementerian PPN/Bappenas, 2021).

Formally, the integration function is most clearly visible at the planning and synchronization level, while implementation authority and operational accountability remain tied to the sectoral mandates of each organization. The analyzed sources do not indicate a single shared decision right that replaces sectoral authority. The depth of authority integration is therefore assessed by the extent to which sectoral decisions are connected to achieve shared outcomes, rather than by the number of institutions involved.

Based on this evidence, the Food Estate has a cross-sectoral architecture with distributed authority. The available evidence is not sufficient to conclude that all of these authorities are in conflict or that all organizations operate separately. What can be shown is that program outcomes depend on the quality of relationships among decisions made by different organizations.

### 3.1.4 Policy Instruments: Relatively Complete, but Their Effectiveness Depends on Relationships and Sequencing

Ministry of Agriculture documents show that the Food Estate uses a broad range of instruments. These include the identification of prospective farmers and prospective land, cultivation, land and water management, agricultural machinery, post-harvest activities, human-resource capacity building, strengthening farmer institutions, financing, insurance, marketing, and control and evaluation (Kementerian Pertanian, 2020).

Bappenas places these instruments within relationships among geospatial aspects, production, and downstream activities. This indicates that instrument effectiveness depends not only on the presence of each instrument, but also on their sequencing and fit. Site designation and land suitability need to provide the basis for water management and cultivation. Once production increases, post-harvest handling, institutions, processing, and marketing are required for production gains to generate added value (Kementerian PPN/Bappenas, 2021; Kementerian Pertanian, 2020).

BPK's audit of Food Estate planning, implementation, monitoring, and evaluation for Fiscal Year 2020 through the third quarter of 2021 provides evidence of problems in the early implementation phase. BPK found that planning was not yet fully based on valid data and information, site designation did not fully comply with applicable provisions, and there were problems in the implementation of survey, investigation, and design (SID), extensification, and intensification in Kapuas and Pulang Pisau Regencies (BPK RI, 2022).

The BPK findings are used in a limited manner. They do not represent all Food Estate areas and are not used to claim that all program instruments are problematic. They are nevertheless

relevant because they show that problems in data, site selection, and early implementation occurred in parts of the program that substantively provide the basis for subsequent instruments.

The study also does not find sufficient evidence to conclude that Food Estate instruments are generally contradictory or duplicative. Some functions do overlap, particularly in land and water affairs, but functional overlap cannot by itself be treated as duplication of authority. The stronger evidence points instead to the need for proper sequencing, clear allocation of responsibility, and complementary relationships among instruments.

### 3.1.5 Monitoring, Evaluation, and Limited Evidence of Policy Learning

Program documents show that monitoring and evaluation are part of the Food Estate design. The Ministry of Agriculture's guidelines include control and evaluation within the program sequence, meaning that monitoring is not an element that is entirely absent from the policy design (Kementerian Pertanian, 2020).

At the level of external review, BPK assessed Food Estate planning, implementation, monitoring, and evaluation for the period from 2020 through the third quarter of 2021 and issued a number of follow-up recommendations (BPK RI, 2022). This evidence shows that monitoring and evaluation mechanisms exist and that implementation problems can be identified through a formal review process.

However, the presence of monitoring and evaluation cannot automatically be treated as evidence of policy learning. Policy learning requires evidence that monitoring or evaluation results are used to change decisions, targets, locations, instruments, budgets, or allocation of roles. Within the core sources analyzed, the study also could not adequately trace a single set of shared-outcome indicators that was collectively used and interpreted across sectors.

The study therefore does not conclude that policy learning does not occur. The defensible finding is that evidence of the use of shared-outcome indicators and cross-sectoral policy learning remains limited.

**Table 3. Summary of Evidence from the Research Findings**

| Analytical component | Main evidence | Finding that can be stated | Limit of the conclusion |
|---|---|---|---|
| Policy frame | Food Law; Bappenas; Ministry of Agriculture Guidelines | The formal Food Estate design is cross-sectoral and not solely production-oriented. | An integrative design does not automatically mean that implementation is integrated. |
| Policy goals | Food production/availability, producer welfare, value chains, area sustainability | There is a need for shared outcomes that go beyond the output of a single institution. | Shared outcomes are an analytical synthesis, not a single official term used in all documents. |
| Actor involvement and authority | Planning, production, water management, environment, spatial planning, local government, and downstream functions | Authority is distributed and program outcomes are interdependent. Integration is clearest in planning/synchronization functions. | There is insufficient evidence to characterize the entire structure as fragmented, conflictual, or governed by a single shared decision right. |
| Instruments | Site selection, land and water management, cultivation, technology, post-harvest activities, institutions, marketing; BPK findings from the early phase | Coherence depends on sequencing, complementarity, and clarity of responsibility. | There is insufficient evidence to characterize the instruments as generally duplicative or contradictory. |
| Monitoring and evaluation | Ministry of Agriculture Guidelines and BPK audit | Monitoring and evaluation exist as formal mechanisms. | Evidence of shared-outcome indicators and cross-sectoral policy change after evaluation remains limited. |

*Source: author's analysis based on the study's core sources.*

### 3.2 Discussion

The findings show that Food Estate governance problems cannot be adequately explained only as problems of interagency coordination. Coordination remains important because the program involves many organizations with different tasks. However, coordination primarily concerns the alignment of activities, division of tasks, schedules, and information exchange. Policy integration requires deeper relationships because goals, authority, instruments, and evaluation processes across sectors must be connected to achieve the same outcomes. The article therefore uses the term policy integration deficit to describe the gap between the need

to work in an integrated manner and the relationships that are actually formed in policy implementation. This deficit does not mean that the Food Estate has no elements of integration; planning documents instead show a cross-sectoral design (Candel & Biesbroek, 2016; Peters, 2018).

Formally, the Food Estate was not designed as an agricultural program concerned only with increasing production. Bappenas situates its development within relationships among geospatial aspects, farm-level production activities, and post-production activities. The Ministry of Agriculture's guidelines also show a sequence of interventions from site selection and land and water management to cultivation, post-harvest activities, institutions, and marketing (Kementerian PPN/Bappenas, 2021; Kementerian Pertanian, 2020). However, breadth of design is not the same as depth of integration. The implementation of these activities remains located in organizations with their respective sectoral mandates and responsibilities.

On this basis, the Food Estate is better understood as a policy with integrative aspirations that is implemented through different sectoral arrangements. The available evidence does not support the claim that the Food Estate is already fully integrated, but neither does it support the conclusion that the program is merely a collection of unrelated activities. The degree of integration needs to be assessed from the quality of relationships among components, rather than from the program label or the number of institutions involved.

Discussion of integration requires a clear understanding of the shared outcomes to be achieved. In this study, shared outcomes are not treated as a single official term used uniformly across all documents. The term is an analytical summary of objectives found in government documents: increased food availability and production accompanied by improved producer welfare, while integration across spatial planning, land and water management, production, downstream activities, and area sustainability provides important conditions for achieving them (Kementerian PPN/Bappenas, 2021; Kementerian Pertanian, 2020).

The distribution of authority therefore needs to be read in terms of its contribution to these shared outcomes. The involvement of many ministries or local governments is not evidence of integration; rather, it indicates the need for integration. Formally, Bappenas provides planning and synchronization functions, while implementation continues through sectoral authority. This arrangement makes integration depend on the capacity to connect sectoral decisions, because program outcomes cannot be produced by a single organization alone.

This finding clarifies the difference between breadth of involvement and depth of integration. In Candel and Biesbroek's (2016) framework, the involvement of multiple subsystems becomes integration only when the presence of these actors changes the way goals, decisions, and instruments are designed. Peters (2018) helps explain why this is difficult: government

organizations operate on the basis of their respective mandates and responsibilities, whereas cross-sectoral problems require outcomes that no single organization can produce. The central need, therefore, is not to eliminate sectoral division, but to build the government's capacity to connect decisions across sectors.

The analysis shows that instrument completeness is not the same as instrument coherence. The Food Estate has many instruments, ranging from site designation, land and water management, cultivation, technology, agricultural machinery, farmer institutions, post-harvest handling, and processing to marketing (Kementerian Pertanian, 2020). The presence of all these instruments makes the program design appear complete. The more important question, however, is whether the instruments are implemented in the appropriate sequence and support one another.

These relationships can be seen in the stages of the policy. Site designation and land suitability provide the basis for water management and cultivation decisions. Once production increases, post-harvest handling, institutions, processing, and marketing are still needed to generate added value and benefits for farmers. A weakness in one instrument can therefore increase the risk of weakness in a subsequent instrument when their relationships and sequencing are not well managed.

The BPK findings from its audit of the Food Estate for Fiscal Year 2020 through the third quarter of 2021 are important in this context. BPK found problems in planning data, site designation, and the implementation of SID, extensification, and intensification (BPK RI, 2022). These findings cannot be generalized to all Food Estate locations and periods, nor do they prove that every early-stage problem necessarily causes a later-stage problem. They do, however, show that problems in planning and site designation matter because Food Estate instruments are interdependent.

The study does not find sufficient evidence to state that Food Estate instruments are generally contradictory or duplicative. The stronger finding is the need for synchronization, clear distribution of responsibility, and proper policy sequencing. The integration deficit in the instrument dimension is therefore better understood as insufficient relationships among interdependent instruments rather than simply the number of instruments in use.

The Food Estate includes monitoring and evaluation mechanisms in its program design. The Ministry of Agriculture's guidelines place control and evaluation within the Food Estate development sequence, while BPK's audit provides an external assessment of planning, implementation, and monitoring-evaluation in the program's early phase (Kementerian Pertanian, 2020; BPK RI, 2022). The article therefore does not conclude that the Food Estate lacks monitoring and evaluation systems.

The more important question is what happens after problems are identified. Monitoring

provides information on implementation progress. Evaluation assesses achievements and problems. Policy learning occurs at the next stage, when monitoring and evaluation findings are used to improve decisions, targets, locations, instruments, budgets, or allocation of roles. In the analyzed sources, evidence of shared-outcome indicators, collective interpretation of evaluation findings, and cross-sectoral decision changes is not sufficiently strong to be traced systematically. The article therefore does not state that policy learning does not occur; the more appropriate conclusion is that the evidence remains limited.

When all findings are read as a single sequence, a policy integration deficit does not appear as one isolated weakness. The pattern begins with broad goals that require shared outcomes. These goals must then be translated into the distribution of authority and responsibilities across organizations. Because authority is dispersed, the instruments used are also distributed and interdependent. When relationships and sequencing among instruments are not sufficiently strong, a problem in one part can increase the risk of problems in another. Monitoring and evaluation should help identify these relationships, while policy learning provides one route for correcting them.

This sequence is not intended as a definitive causal claim. Document-based research is not sufficient to prove that one weakness always causes another. The sequence is better understood as an analytical mechanism showing how several weaknesses can be interconnected. In this way, the concept of policy integration deficit is not used as a label for every Food Estate problem.

For Public Administration, these findings offer an important lesson: the success of cross-sectoral programs cannot be assessed solely from the performance of each organization separately. Ministries or local governments may perform their sectoral tasks, yet policy outcomes may still remain unmet if the relationships among those tasks are weak. Government capacity in cross-sectoral programs therefore needs to be understood not only in terms of resources, organizational structures, or the presence of coordination forums, but also in terms of the capacity to connect goals, authority, instruments, and evaluation toward the same outcomes.

These findings reinforce Candel and Biesbroek's (2016) view that policy integration is a multidimensional process and cannot be assessed in binary terms as either “integrated” or “not integrated.” They are also consistent with literature emphasizing functional coherence, cross-sectoral coordination, and institutional fit in interdependent problems (Dombrowsky et al., 2022; Uda et al., 2020; Nugroho et al., 2025; Astuti et al., 2026). Research on state-capital-power relations in the Food Estate also reminds us that policy integration takes place within structures of authority and resources that are not always equal (Abdulgani & Savitri, 2025). However, because the study's core sources do not allow adequate tracing of informal negotiations and agenda-setting power, these issues are treated as analytical context rather than direct case evidence.

These findings also extend Peters (2018). Administrative coordination remains necessary to align organizations, but cross-sectoral programs require a deeper capacity than coordination of activities alone. Strengthening the Food Estate therefore cannot be achieved simply by adding coordination forums. What matters more is to clarify shared outcomes, connect responsibilities across organizations, design instruments around their interdependencies, and ensure that evaluation findings can be used to improve cross-sectoral decisions.

## 4. Conclusion

This study shows that Food Estate implementation problems cannot be adequately explained only as technical problems in agriculture, land conditions, interagency coordination, or weaknesses in a single sector. The Food Estate was designed from the outset as a cross-sectoral program. Its success therefore depends on the government's capacity to connect the goals, authority, instruments, and monitoring and evaluation of the various organizations involved. The answer to the research question lies in the quality of these relationships: problems arise when the need to work in an integrated manner is greater than the relationships actually formed in policy implementation.

The findings do not indicate that the Food Estate lacks integration entirely. On the contrary, official documents show a broad design, the involvement of many organizations, and the use of multiple instruments. Yet breadth of design and number of actors do not by themselves produce deep integration. Shared outcomes need to be translated into connected responsibilities; distributed authority needs to be accompanied by clear relationships among decisions; and instruments from different sectors need to be implemented in an appropriate and complementary sequence. Monitoring and evaluation also need to be connected to policy improvement processes rather than functioning only as reporting activities.

On this basis, the policy integration deficit in this study is not understood as a single failure. The term is used to explain a pattern in which goals, authority, instruments, and learning processes are not sufficiently connected to support shared outcomes. This understanding also distinguishes an integration deficit from ordinary coordination problems. Coordination can help align activities and information exchange, whereas integration requires decisions in each sector to take account of their dependence on other sectors and their contribution to overall program outcomes (Candel & Biesbroek, 2016; Peters, 2018).

The contribution of this study to Public Administration is to show that assessment of cross-sectoral programs cannot stop at the performance of individual organizations. The performance of relationships among institutions and policy instruments also needs to be assessed. In the Food Estate, problems can persist even when each organization has its own tasks, budget, and instruments if the relationships among those tasks are not sufficiently strong. Government capacity in cross-sectoral policy should therefore be understood as the capacity to connect decisions, authority, instruments, and evaluation toward the same outcomes. This contribution is a contextual empirical refinement rather than a proposal for a

new universal model.

The policy implication is that strengthening Food Estate governance should not be limited to adding coordination forums, budgets, technology, or new sectoral programs. Improvements need to focus on more fundamental requirements: clarifying shared outcomes; synchronizing planning and budgeting across sectors; ensuring that roles, decision rights, and accountability across institutions are connected; sequencing instruments according to their interdependencies; and building monitoring and evaluation capable of capturing cross-sectoral outcomes. This recommendation does not mean that all authority should be consolidated in a single organization. Sectoral division of labor remains necessary, but relationships across sectors need to be clearer and more accountable.

This study has several limitations. The analysis relies solely on documents and is not supplemented by interviews, field observations, or new quantitative measurements. It therefore cannot explain in depth informal negotiations among actors, undocumented political interests, differences in resources and agenda-setting power, or variations in coordination practices across Food Estate locations. The BPK findings are also used only within the scope of the audit and are not generalized to all locations and periods of the program. In addition, evidence of cross-sectoral policy learning remains limited, so the study does not conclude that such learning has failed or does not occur.

Future research should test these findings by comparing Food Estate locations with different ecological conditions, institutional arrangements, and local-government capacities. Interviews with ministries/agencies, local governments, farmers, local communities, and other actors would also be important for examining how differences in goals are negotiated, how authority problems are resolved, how power relations operate, and how evaluation findings are used to change policy.

## 5. Ethics Approval

This study is based entirely on the analysis of publicly available documents and did not involve human participants, interviews, interventions, or identifiable personal data. Formal ethics approval and informed consent were therefore not required.

## 6. Author Contributions

Conceptualization: Aniqotul Ummah; Methodology: Aniqotul Ummah; Source Collection and Verification: Aniqotul Ummah; Formal Analysis: Aniqotul Ummah; Writing—Original Draft Preparation: Aniqotul Ummah; Writing—Review and Editing: Aniqotul Ummah. The author has read and approved the final version of the manuscript.

## 7. Declaration on the Use of AI and AI-Assisted Technologies in Writing

During the preparation of this manuscript, the author used ChatGPT (GPT-5.6 Sol, OpenAI) to assist with academic-language editing, manuscript organization, preliminary literature mapping, and citation-consistency checking. All AI-assisted outputs were critically reviewed, verified against the original sources, and revised by the author. AI was not used as an independent source of evidence, did not generate or interpret research data, and did not determine the scientific conclusions. The research problem, theoretical choices, source selection and verification, coding decisions, interpretation of evidence, arguments, and final conclusions were determined by the author. The author takes full responsibility for the accuracy, integrity, and originality of the manuscript.

## 8. Declaration of Competing Interest

The author declares that there are no known financial interests or personal relationships that could have influenced the research and writing of this article.

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## 11. Data Availability Statement

The evidence underlying this study consists of publicly available regulations, government policy documents, official audit findings, and scholarly publications cited in the References. The source inventory and coding matrix developed for this study are available from the corresponding author upon reasonable request for academic verification.

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